A RELATIONSHIP BETWEEN SELF-ASSESSMENT OF THE ICAO LANGUAGE PROFICIENCY

REQUIREMENTS AND TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC)

OF THAI AIRWAYS INTERNATIONAL FLIGHT ATTENDANTS

Mr. Narasak Sirikanjanawong

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Arts Program in English as an International Language

(Interdisciplinary Program)

Graduate School

Chulalongkorn University

Academic Year 2016

Copyright of Chulalongkorn University

ความสัมพันธ์ระหว่างการประเมินตนเองด้วยแบบวัดความสามารถตามมาตรฐานทักษะด้าน
ภาษาอังกฤษการบินองค์การบินพลเรือนระหว่างประเทศและการทดสอบโทอิคของพนักงานต้อนรับ
บนเครื่องบินการบินไทย

นายนราศักดิ์ ศิริกาญจนวงษ์

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต
สาขาวิชาภาษาอังกฤษเป็นภาษานานาชาติ (สหสาขาวิชา)
บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย
ปีการศึกษา 2559
ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

Thesis Title	A RELATIONSHIP BETWEEN SELF-ASSESSMENT OF THE ICAO LANGUAGE PROFICIENCY REQUIREMENTS AND TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC) OF THAI AIRWAYS INTERNATIONAL FLIGHT ATTENDANTS
By	Mr. Narasak Sirikanjanawong
Field of Study	English as an International Language
Thesis Advisor	Associate Professor Punchalee Wasanasomsithi, Ph.D.

Accepted by the Graduate School, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree

--Dean of the Graduate School

(Associate Professor Sunait Chutintaranond, Ph.D.)

THESIS COMMITTEE

--Chairman

(Assistant Professor Jirada Wudthayagorn, Ph.D.)

--Thesis Advisor

(Associate Professor Punchalee Wasanasomsithi, Ph.D.)

--External Examiner

(Assistant Professor Natjiree Jaturapitakkul, Ph.D.)

นราศักดิ์ ศิริกาญจนวงษ์ : ความสัมพันธ์ระหว่างการประเมินตนเองด้วยแบบวัดความสามารถตาม มาตรฐานทักษะด้านภาษาอังกฤษการบินองค์การบินพลเรือนระหว่างประเทศและการทดสอบโทอิคของ พนักงานต้อนรับบนเครื่องบินการบินไทย (A RELATIONSHIP BETWEEN SELF-ASSESSMENT OF THE ICAO LANGUAGE PROFICIENCY REQUIREMENTS AND TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC) OF THAI AIRWAYS INTERNATIONAL FLIGHT ATTENDANTS) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร. ปัญชลี วาสนสมสิทธิ์, 127 หน้า.

องค์การการบินพลเรือนระหว่างประเทศ (ICAO) ได้กำหนดมาตรฐานทักษะด้านภาษาอังกฤษ (LPRs) สำหรับผู้ปฏิบัติการบินบนเที่ยวบินระหว่างประเทศ และผู้ควบคุมการจราจรทางอากาศทั้งหมดที่สื่อสารกับนักบิน ต่างชาติ องค์การการบินพลเรือนระหว่างประเทศได้กำหนดให้ผู้ที่ทำงานบนเที่ยวบินระหว่างประเทศต้องมีคุณสมบัติ อย่างน้อยในระดับปฏิบัติการ 4 ตามข้อกำหนด อย่างไรก็ตาม ในประเทศไทยการทดสอบภาษาอังกฤษที่พนักงาน ต้อนรับบนเครื่องบินถูกกำหนดให้สอบคือ การทดสอบ TOEIC ซึ่งเห็นได้ชัดว่ามีความไม่ตรงกันระหว่างคะแนนสอบ TOEIC กับมาตรฐานทักษะด้านภาษาอังกฤษของการบินองค์การบินพลเรือนระหว่างประเทศ

งานวิจัยชิ้นนี้ได้สำรวจความสัมพันธ์ระหว่าง การประเมินตนเองด้วยแบบวัดความสามารถตามมาตรฐาน ทักษะด้านภาษาอังกฤษการบินองค์การบินพลเรือนระหว่างประเทศ กับการทดสอบ TOEIC ของพนักงานต้อนรับบน เครื่องบินในประเทศไทย และทัศนคติของพวกเขา เพื่อตรวจสอบว่า การทดสอบ TOEIC เป็นวิธีการที่มีประสิทธิภาพ มากที่สุดในการรับสมัครพนักงานต้อนรับบนเครื่องบินในประเทศไทยหรือไม่ งานวิจัยนี้เก็บข้อมูลจาก พนักงาน ต้อนรับบนเครื่องบินการบินไทยทั้งหมด 100 คน โดยใช้แบบสำรวจการประเมินตนเองด้วยมาตรวัดแบบลิเคิร์ท 4 ระดับ เพื่อวัดความสามารถในการประเมินตนเองของกลุ่มตัวอย่าง ด้วยตัวบ่งชี้ระดับการให้คะแนนขององค์การการ บินพลเรือนระหว่างประเทศโดยมุ่งเน้นที่ระดับการปฏิบัติการ 4 ข้อมูลของงานวิจัยได้ทำการวิเคราะห์เชิงปริมาณ โดยใช้สถิติเชิงอนุมานของสัมประสิทธิ์สหสัมพันธ์ของเพียร์สัน นอกจากนั้น เพื่อนำเสนอข้อมูลเชิงลึกเกี่ยวกับ ทัศนคติของพนักงานต้อนรับเครื่องบินการบินไทย การสัมภาษณ์แบบกึ่งโครงสร้างจึงถูกนำมาใช้ และ และวิเคราะห์ โดยวิธีการวิเคราะห์เนื้อหา

ผลจากการวิจัยนี้พบว่า มีความสัมพันธ์ทางบวกระหว่างคะแนนสอบ TOEIC กับมาตรฐานทักษะด้าน ภาษาอังกฤษการบินองค์การบินพลเรือนระหว่างประเทศของพนักงานต้อนรับบนเครื่องบินการบินไทย ซึ่งมีค่า เท่ากับ 0.384 แต่ความสัมพันธ์ดังกล่าวมีความสัมพันธ์อยู่ในระดับต่ำ ดังนั้น ผลการศึกษาในครั้งนี้แสดงให้เห็นว่า บริษัทการบินในประเทศไทย ควรตระหนักถึงการใช้ TOEIC เป็นข้อกำหนดในการรับสมัครงาน และยังแนะนำให้ อุตสาหกรรมการบินไทยควรพัฒนา แบบทดสอบความสามารถทางภาษาอังกฤษของตนเองในกระบวนการการสรร หาบุคลากร

5887518320 : MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE

KEYWORDS: ICAO LANGUAGE PROFICIENCY REQUIREMENTS / SELF-ASSESSMENT / TOEIC TEST / THAI AIRWAYS INTERNATIONAL FLIGHT ATTENDANTS / AVIATION ENGLISH

NARASAK SIRIKANJANAWONG: A RELATIONSHIP BETWEEN SELF-ASSESSMENT OF THE ICAO LANGUAGE PROFICIENCY REQUIREMENTS AND TEST OF ENGLISH FOR INTERNATIONAL COMMUNICATION (TOEIC) OF THAI AIRWAYS INTERNATIONAL FLIGHT ATTENDANTS. ADVISOR: ASSOC. PROF. PUNCHALEE WASANASOMSITHI, Ph.D., 127 pp.

The International Civil Aviation Organization (ICAO) has established English Language Proficiency Requirements (LPRs) for all flight crews operating on international routes and all air traffic controllers who communicate with foreign pilots. ICAO requires those who operate on international routes to be qualified at least in Operational Level 4 in the requirements. However, in Thailand, the only English test that all flight attendants are required to take is the TOEIC. Apparently, there is a mismatch between the TOEIC test scores and the ICAO LPRs.

The current study thus explored the relationship between the ICAO LPRs and TOEIC scores of flight attendants in Thailand and their attitudes in order to better determine if the TOEIC is the most effective mean to recruit flight attendants in Thailand. The data were collected from 100 Thai Airways International flight attendants using a four-point Likert scale self-assessment survey to measure the participants' self-assessed abilities on all ICAO rating scale descriptors focusing on Operational Level 4. The data were quantitatively analyzed with inferential statistics of Pearson's product moment correlation coefficient. Moreover, to elicit in-depth information regarding the attitudes of Thai airways flight attendants, the semi-structured interview protocols were also used and subsequently analyzed by means of content analysis.

The findings of the current study revealed that there is a positive correlation between ICAO LPRs and TOEIC scores of Thai Airways International flight attendants, which was equal to 0.384, but this correlation was a weak uphill (positive) linear relationship. As a result, the present study suggests that Thai aviation companies should be aware of using TOEIC as a recruitment requirement. It is also recommended that the Thai aviation industry should develop their own English language proficiency test for staff recruitment process.

Field of Study:	English as an International	Student's Signature	
	Language	Advisor's Signature	
Academic Year:	2016		

ACKNOWLEDGEMENTS

CONTENTS

List of Table

List of Figure

CHAPTER I

INTRODUCTION

1.1 Background of the study

English has become the quintessence of world language. The English language is used as a first language or a national language in approximately 60 inner circle countries and as an important second language in many more countries in the world. The numbers of speakers of English as a second language or English as a foreign language significantly increase day by day. According to Graddol (2007), non-native users of English have already outnumbered native users at the start of the 21st century by approximately 3 to 1. However, it is accepted that English speakers who use English as a second language or a foreign language may not always share the same language background. Thus, correct pronunciation of two non-native English speakers who do not share the same mother tongue becomes even more crucial when communicating while accent is less important compared to pronunciation. Mutually comprehensible pronunciation is desirable, and, in the context of aviation communications, compulsory. Otherwise, accidents caused by miscommunication can easily occur.

With regard to the aviation industry, the language of international aviation communication is definitely English (Alderson, 2009). Correct pronunciation receives more serious attention from the aviation professionals since there have been countless incidents and accidents which have taken place as a result of miscommunication between staffs in the aviation industry who are not native speakers of the English language. What is more, the English language of international aviation is not English for general purposes. Rather, aviation English is regarded as a language for specific purposes, but it is even more restricted than that (Douglas, 2000). Much of the English used in the aviation industry can be seen as a code that is used in a very restricted context known as standard phraseology. Therefore, aviation personnel need to possess understanding of how English in the aviation

industry may differ from the English language they use in their everyday life outside work.

Aviation English includes the ability to speak, write, and understand—in English--aviation meteorology, physics, navigation, maps and charts, electronics and avionics, instrumentation, hydraulics, rules of the air, air traffic control regulations, and more. Precise, unambiguous, and accurate communication in English, both in the air and on the ground, is very important to the international aviation personnel to carry out their job efficiently and safely (Martin, 2016). According to Gardner (2000) many serious miscommunications can occur in unpredictable situations, particularly in emergencies, and especially where urgent corrective action or essential information is required, and where one of the interlocutors may be under severe emotional stress. This claim supports the belief that speaking skill or oral communication skill is the most important skill in aviation English. However, as Boonkit (2010) has pointed out, that improvement of speaking or oral communication skills goes hand in hand with development of reading and writing. This is because it is accepted that the more one reads and writes, the more he or she can increase his or her vocabulary size and the more he or she will be able to articulate concepts to others more accurately and effectively. As a result, it can be concluded that when aviation personnel are equipped with oral communication, reading, and writing skills, they should be better able to fulfill their duties and responsibilities in the industry.

According to Parohinog and Meesri (2015), in the 2013 ASEAN Forum, even though many issues related to aviation were discussed, the one that was stated in its paper entitled "Aviation Lifting the Barriers Roundtables" was probably talked about more widely than the others. The paper addressed the big demands in the aviation industry in Asia-Pacific that as many as 185,000 more pilots and 243,500 more maintenance personnel are urgently needed. This demand increases a great pressure on training centers and Higher Educational Institutions (HEIs) with aviation programs in Thailand. One of the reasons why there is a shortage of air personnel in the aviation industry is there are many requirements for those who want to apply for a job in the aviation industry which are not always easy to meet. For example, the International

Civil Aviation Organization (ICAO), a specialized agency of the United Nations, has specified that the responsibilities of flight attendants include not only providing food and beverages to passengers but also to be capable of ensuring safety and taking care of emergency of passengers, in addition to having the overall knowledge about the aircraft they fly (ICAO, 2008). Besides this, the English language proficiency of flight attendants is what ICAO takes into serious consideration, particularly those who fly international routes. However, in Thailand, there are no language training courses that comprehensively focus on the ICAO language proficiency requirements, and this may partly explain why Thai flight attendants' language standards are below what set by ICAO (Suksiripakonchai, 2012).

According to Wallis (1998), International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations which is in charge of "establishing international standards for the licensing of personnel and aircraft operation and developing principles and techniques of air navigation, including meteorology, radio communication, and rules of the air (p. 83)." Basically, ICAO is an international organization which sets the overall aviation standards for all aviation organizations in the world regarding aviation safety, security, efficiency, regularity, and environmental protection. ICAO also regulates technical procedures and operating practices of the aviation industry on a global scale (IHS Markit, 2017).

ICAO, which develops and suggests airline safety standards and practices (Bussinessdictioanry.com), requires flight crew members (cockpit crews and cabin crews) and air traffic controllers to be able to communicate proficiently using both ICAO phraseology and plain English. ICAO has identified six areas of language competency in which aviation personnel must be proficient including the following: pronunciation, structure, vocabulary, fluency, comprehension, and interactions (ICAO, 2004b). English is not their first language. They understand, however, that if they want to fly internationally as a career, their English proficiency must be high to a certain extent. Nevertheless, the English proficiency of overall flight attendants in Thailand is found to be lower than the accepted standards (Permtanjit, 2003). Although English has been considered the main subject in Thailand's curriculum in

school, and Thai students are required to learn English since the first year in school, Thai students' levels of English proficiency is generally low, as evidenced by their TOEFL scores or Chulalongkorn University Test of English Proficiency (CU-TEP) scores (Prapphal, 2012), for example. Pawapatcharaudom (2007) has pointed out that Thai students have most difficulty in writing, followed by listening and reading among other skills. This is because instruction in school tends to focus on reading and writing. When the focus is on reading and writing that seem to be more important in Thailand context, the listening and reading skills are paid attention less. This also continues into the university level where reading and writing tend to receive more attention than speaking and listening. As such, Wiriyachitra (2001) has concluded that English curricula in Thai universities do not equip the students with the language skills they need to meet the demand of the workplace. In other words, Thai graduates may not have the English skills they need to function efficiently in their occupation after graduation because the focus of English instruction is not on listening and speaking—the skills most used in the workplace, as can be easily seen in the case of aviation workplace that when it comes to oral communication ability, the ability that flight attendants need more than other skills in English when working, it is found that the two largest areas of difficulty are unfamiliarity with passengers' accents and the flight attendants' own accents and pronunciations. Without effective English communication skills, a flight attendant may find it difficult to fulfill their duties and responsibilities working with passengers with numerous language backgrounds on a daily basis, let alone climbing up the corporate ladder. Furthermore, good English skills help flight attendants develop the relationships with superiors and colleagues, and they ensure that arguments and disagreements at work are kept to a minimum. More importantly, good English communication can also help flight attendants avoid incidents that may affect the safety and well-being of the passengers. Therefore, flight attendants need to have a good command of English speaking and listening in order to work efficiently and effectively on board as well as on the ground. For Thai Airways International in particular, applicants for the position of flight attendants have to take the Test of English for International Communication (TOEIC) (ETS, 2007) in addition to other requirements such as a

swimming test and group and personal interview test. According to ETS (2007), the TOEIC test is designed to assess the test-takers' skills in international environment. For Thai Airways International, the cut-off score for applicants is 600, and the range of scores of those who can apply for the position is quite wide, ranging from 600 to990 points. As the minimum score of 600 means the test-takers are able to use English in Elementary Proficient Plus level and the maximum score of 990 means they are able to use English in International Professional Proficient level, it can be seen that the levels of proficiency of Thai flight attendants can vary considerably.

As previously mentioned, the ICAO sets the standards of language proficiency of those who work in the aviation industry called the ICAO Language Proficiency Requirements (LPRs). In order to be qualified to work in the aviation industry, applicants must meet at least the operational level 4 in the requirements. At this level, practical and achievable level of proficiency (Mathews, 2004), applicants are supposed to be able to operate the international flight as a proficient language user such as communicate effectively (ICAO, 2004a). In reality, the flight crews at operational level 4 are expected to be able to handle unexpected situations in working routine successfully. However, as it is apparent that both requirements—the TOEIC and the ICAO LPRs—have different foci, one on oral communication ability in general workplace and the other on English for specific purposes, particularly the aviation industry, it would be interesting to explore if there is a relationship between the TOEIC test and the ICAO LPRs that flight attendants are required to take. It was anticipated that the study findings would shed light on the relationship between the TOEIC and the ICAO LPRs. Furthermore, the study findings would offer insights into these two forms of assessment to help administrators and those involved in the aviation industry reconsider if both of them are sufficiently suitable for recruitment of flight attendants who want to fly international routes.

1.2 Research Objectives

The objectives of the present research were as follows:

1.2.1 To explore the relationship between the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (LPRs) of Thai Airways International flight attendants

1.2.2 To investigate the attitudes of Thai Airways International flight attendants towards the TOEIC test and ICAO LPRs

1.3 Research Questions

The present study aimed to answer the following questions:

1. What is the relationship the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (LPRs) of Thai Airways International flight attendants?

2. What are the attitudes of Thai Airways International flight attendants towards the TOEIC test and ICAO LPRs?

1.4 Research Hypothesis

According to ETS (2011), Air France has successfully used the TOEIC Speaking and Writing test in order to recruit airline staffs who are able to meet the language proficiency requirements of the ICAO. Moreover, ETS (2008b) states that China Southern Airlines insisted on using the TOEIC test instead of the aviation-industry-specific test designed by ICAO based on the ground that all the airlines' employees working at specific posts are able to meet the international standards and the TOEIC test also helps motivate the airline employees to gain a higher level of overall language proficiency for overall. Therefore, the hypothesis of the present study was formulated as follows:

There is a relationship between the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (LPRs) of Thai Airways International flight attendants.

1.5 Scope of the Study

This correlational study aimed to explore the Test of English for International Communication (TOEIC) and the relationship between the ICAO Language Proficiency Requirements, both of which are part of the requirements of applicants for the position of flight attendants of Thai Airways International. The study sample consisted of 100 Thai Airways International flight attendants who were recruited by means of purposive sampling based on the inclusion criteria previously set. Data collection was conducted by means of the demographic characteristics questionnaire, the ICAO Language Proficiency Requirements self-assessment survey and the semi-structured interview protocol. Data were collected at Thai Airways International Operations Center in April 2017.

1.6 Definition of Terms

1.6.1 Self-assessment

Self-assessment, in social psychology, refers to the process of seeing at oneself in order to assess aspects that are important to one's identity. Self-assessment can be regarded as an examination of an individual as well as an organization to identify existing strengths and weakness which can subsequently lead to actual and worthwhile improvements (New Zealand Qualifications Authority, 2016). Put another way, a self-assessment refers to a systematic process of data-driven self-reflection which is directed towards coherent and clearly articulated goals to inform decision-making and operational practices (Runnels, 2014). In the present study, self-assessment referred to the ICAO Language Proficiency Requirements survey which Thai Airways International flight attendants were required to respond to in order to determine if they were qualified to be at least operational Level 4 in the ICAO LPRs or not. It consisted of 6 skills focusing on level 3-5.

1.6.2 Flight attendants

Flight attendants refer to professionals who spend a large part of their time on the plane, working to ensure that customers are safe and provided with top-of-the line customer services (Murphy, 2010). In the present study, flight attendants

referred to the Thai Airways International cabin crew who had been working in the economy class cabin to provide services and security assistance to passengers for at least one year. All of the flight attendants in this study were Thai by nationality and the Thai language was their mother tongue. In order to be eligible to work in this position, their TOEIC score must be at least 600 points.

 1.6.3 The ICAO Language Proficiency Requirements

 ICAO stands for the International Civil Aviation Organization which is a United Nations specialized organization. It is established by States in 1944 to manage the administration and governance of the Convention on International Civil Aviation (Chicago Convention) (Suksiripakonchai, 2012). According to ICAO (2010), language proficiency is not merely knowledge of a set of grammar rules, vocabulary, and ways of pronouncing sounds. Instead, it is a complex interaction of that knowledge with a number of skills and abilities. With this definition, language proficiency aviation English differs substantially in nature from English used in school and in other professions. As regards ICAO Language Proficiency Requirements (LPRs), its main purpose is to ensure that the language proficiency of pilots, air traffic controllers, flight attendants, and other personnel involved in the field of aviation is sufficient for them to fulfill their job requirements, to reduce miscommunication as much as possible, and to allow them to recognize and solve potential miscommunication when it does occur. This is to ensure quality of service provision and safety of passengers. In this study, the ICAO Language Proficiency Requirements (ICAO LPRs) referred to a set of language rules that all flight attendants had to follow which consisted of a set of holistic descriptors which divided levels of proficiency of flight attendants into five operational Levels. Level 1 referred to the ability to communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations and level 5 referred to the ability to use a dialect or accent which is intelligible to the aeronautical community (ICAO, 2010). These five holistic descriptors detailed characteristics of proficient speakers and established contexts for communication with discrete features of language use specified. At Thai Airways

International, all flight attendants were required to meet the operational level 4 in order to be able to fly.

1.6.4 TOEIC

TOEIC stands for Test of English for International Communication. According to ETS (2015a), the TOEIC is "an English language test designed specifically to measure the everyday English skills of people working in an international environment." There are different forms of the exam: the TOEIC Listening and Reading test consists of two equally graded tests of comprehension assessment activities with the total score of 990 points, and the TOEIC Speaking & Writing Test comprises tests of pronunciation, vocabulary, grammar, fluency, overall coherence, and structure (organization of sentences), with a total score of 400 points. The test is widely used to measure English language proficiency needed for practical use in the professional world (Dudley-Evans & John, 1998). In Thailand, the TOEIC test is used in organizations in evaluating the skill levels of their potential employees and current employees for purposes such as hiring, promotion, and training. In this study, the TOEIC test referred to the TOEIC Listening and Reading test to assess listening and reading skills of applicants for the position of flight attendants of Thai Airways International in addition to other requirements such as a swimming test and an interview. The applicants needed to have the minimum TOEIC score of 600 in order to be qualified for the position.

1.7 Significance of the study

This study mainly focused on the relationship between the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (ICAO LPRs) on listening and reading skills of flight attendants. It was anticipated that the findings of the present study could be utilized to benefit the following individuals and organizations:

1.7.1 Thai Airways International flight attendants

This study has the direct benefits for Thai Airways International flight attendants since the self-assessment of the ICAO Language Proficiency Requirements

(ICAO LPRs) is one of the most effective means to determine what the flight attendants need or lack in term of the English language use in their line of work. Thus, they would have better understanding of what they need to improve in order to meet the ICAO standard, hence a good opportunity for professional development that will increase their capacity to function as flight attendants on international routes efficiently and effectively.

1.7.2 Thai Airways International

It is said that successful companies put the right man on the right job. The findings of the preset study can be used as a guideline for Thai Airways International to reconsider whether their existing recruitment process enables them to choose flight attendants with sufficient levels of English proficiency to ensure their professional performance. If the company finds that the TOEIC is not the most suitable proficiency test in accordance with the standard of ICAO language proficiency, they can use the study findings as evidence of the necessity to come up with a new English proficiency test, whether a commercially available test or a newly designed in-house test, to more effectively recruit their flight attendants to ensure quality service provision and safety of their own passengers.

1.7.3 Airline industry in Thailand

Apart from Thai Airways International itself, the aviation industry in Thailand can benefit from the findings of this study. The relationship between the TOEIC and the ICAO LPRs found in this study could surely be used as baseline data for the aviation industry to reconsider if the existing recruitment standard of flight attendants is sufficient to ensure that only truly qualified flight attendants will be recruited into the industry or if a new form of English language assessment that can be applied across airlines operating in Thailand is called for.

CHAPTER II

LITERATURE REVIEW

This chapter presents the reviews of related literature and research related to the relationship between the ICAO Language Proficiency Requirements (LPRs) and the Test of English for International Communication (TOEIC) of Thai Airways International flight attendants for listening and reading skills. The main topics reviewed in this chapter include self-assessment, aviation English, the ICAO Language Proficiency Requirements, and the TOEIC test.

2.1 Self-assessment

2.1.1 Definition of self-assessment

The ability to self-assess is often seen as a key characteristic of an autonomous language learner (Gardner, 2000) where autonomy refers to a learner's capacity to take charge of and be responsible for their own learning (Holec, 1981). According to Holec (1981), self-assessment is a tool which supports language learners with autonomy. An assessment, self-assessment included, may serve a variety of purposes, such as measuring progress, proficiency, motivation, and confidence (Gardner & Miller, 1999).

According to Race (2001), self-assessment is a method that allows learners to judge their own work which can be in the forms of reports, essays, presentations, and even exam papers. In other words, self-assessment can take many forms (Race, 2001, p. 11), including the following:

- writing conferences
- discussions (whole-class or small-groups)
- reflection logs
- weekly self-evaluations
- self-assessment checklists and inventories
- teacher-student interviews

- questionnaires

These forms of self-assessment can be considered successfully implemented when the evidence of the assessment is made intrinsically personal in nature. This means that students know well whether the evidence meets the criteria or the purposes of the assessment or not. The best way to achieve this is to make the criteria and purposes clear. When learners evaluate their own work, teachers might let them create their own criteria for work and the teachers assist them with such criteria when learners assess their own work whether it meets the passing criteria or not. Teachers can subsequently make use of learners' self-assessment to plan how they can further teach and assist them to help them achieve the learning objectives of the course.

2.1.2 Benefits of self-assessment

Gardner (2000) has pointed out that the benefits of self-assessment can extend beyond learners to teachers and also to the institution. Language learners benefit the most from self-assessment and in very diverse ways, more than teachers and institutions. The benefits of learners' self-assessment depend to a large extent on whether they are able to gain access to the results of learners' self-assessments as shown in Figure 1.

BENEFITS

learner {
Individualisation
Reflection
Motivation
Evaluation
Monitoring
Support
Accreditation
Justification
}

teacher

institution
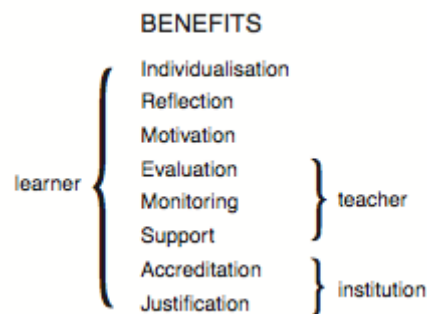
Figure 1 The benefits of self-assessment (Gardner, 2000, p. 51)

According to Gardner (2000), self-assessments help learners observe their level of progress in specific learning tasks. This may imply that self-assessment can have a motivational effect. When learners assess themselves as successful, such success can lead to confidence, and in the end, learners' motivation can be enhanced. Blue (1994) explains why it is beneficial to employ self-assessment as self-assessment enables users to gain more interests in their own independent learning. This can help promote motivation. However, self-assessment should be used with caution as some learners may not have experience making judgment of this sort. Thus, it is teachers' responsibility to make sure that learners are able to complete self-assessment before they are given a chance to do so to ensure validity and reliability of the self-assessment results.

Likewise, Oscarson (1997), a renowned scholar in self-assessment, points out that it is not only teachers who get the benefits from self-assessment when their teaching techniques are expanded, but self-assessment is also beneficial for learners in raising their more goal-oriented motivation in language learning. Besides, learners' self-assessment also encourages them to get involved in their own learning more as self-assessment requires them to consider their own performance more than teacher-assessment.

According to Coombe and Canning (2002), in spite of the criticisms against self-assessment in terms of its validity and reliability, many teachers have used self-assessment as an assessment method in the classroom successfully. This can be achieved when teachers make sure that their learners are ready to do this kind of assessment and teachers are prepared to offer assistance when it is needed.

Runnels (2014) has pointed out that one of the most important reasons why teachers and learners may avoid the use of a self-assessment instrument is the reliability of the results. First, some stakeholders may think that it is easy to cheat when they self-assess themselves, hence a drawback of the perceived validity of the assessment. Furthermore, letting students self-assess themselves can lead to misinterpretation of students that teachers are too lazy because as most students are likely to think that assessment should be the duty and responsibility of the teachers. Moreover, some students may be unwilling to do their own self-assessment in much the same way as how self-conscious they feel about using a foreign language for the first time. Finally, Gardner (2000) points out that even though the pitfalls of self-assessment can be significantly minimized, the issue of reliability of a self-assessment still remains. However, despite a number of concerns raised by researchers, it is generally believed that if a self-assessment instrument is utilized with sufficient care, self-assessment can still be both a valid and reliable supplement to traditional assessment in some ways (Saito, 2003).

2.1.3 Self-assessment instruments

It is believed that the appropriate self-assessment instruments that is carefully designed and suits particular learners can lead to effective assessment. Even though there are many formats of self-assessment instruments to identify language learners' strengths, competencies, or needs such as progress cards (Oscarson, 1997), questionnaires (Coombe & Canning, 2002), journals (Dickinson, 1987; Oscarson, 1997), and informal observations

(Fetterman, Kaftarian, & Wandersman, 1996), a questionnaire remains one of the most popular instruments of self-assessment (Oscarson, 1997).

A questionnaire is a kind of research instrument consisting of a group of questions and other prompts to gather information from respondents. There are two types of questionnaires—closed-ended and open-ended questionnaires.

First, closed-ended questionnaires are at the structured end of the continuum. By this, it means researchers determine the questions that are asked and the answers that will be given in advanced. It can be said that researchers already decide possible answers or responses of respondents who are simply required to choose the responses that best suit what they think, believe, or do. Unfortunately, as all the questions and possible answers are already determined in advance, the process of discovering new information is pretty much reduced (Oscarson, 1997).

Second, open-ended questionnaires allow respondents to freely answer the questionnaire items the way they like. However, in some cases researchers may not obtain the responses they need as respondents may give too little response, or talk about something irrelevant. While the open-ended question is more difficult to extract quantifiable data, a Likert scale for closed-ended questions provides respondents a range of choices such as strongly agree, agreed, undecided or unsure, disagree, and strongly disagree that are easier to extract the quantifiable data. However, it is worth noting that some researchers do not like to use closed-ended questions with fixed responses as they feel that respondents are somehow forced into an answer and cannot explain why they answer like that.

The most commonly used a rating scale like a Likert scale is a questionnaire. In general, a questionnaire is used to elicit a psychometric response to obtain participants' preferences or degree of agreement with a statement or set of statements. Respondents are asked to indicate their

preferences or degree of their agreement by stating them in an ordinal scale. There are many variations of the Likert scale used (a four-point scale to an 11-point scale), yet the commonly seen scale is a five-point scale ranging from "strongly disagree" on one end to "strongly agree" on the other with "neither agree nor disagree" in the middle. However, some practitioners advocate the use of a seven- or nine-point scale which adds additional granularity (Bertram, 2012).

According to Cummins and Gullone (2000), a five-point Likert scale should be avoided. They further explain that when a five-point Likert scale is used, most respondents tend to respond only to a restricted portion of the conventional scale which seems to be the neutral one in the middle. Moreover, scale sensitivity becomes more of a critical concern as the construct has a high trait component, and small deviations are highly meaningful. Therefore, it is suggested that the number of choices given to respondents needs to be expanded.

It is noteworthy that many researchers disagree with the use of a five-point Likert scale, and they have started using a four-point scale in which there is no neutral option which produces an ipsative (forced choice) measure where no indifferent option is available. Simply put, they believe that without a neutral option, it is more likely that a more specific or accurate response can be elicited from respondents. Sometimes a four-point scale is called a forced Likert scale since the user is forced to form an opinion without a safe 'neutral' option.

In summary, there are many researchers choosing different types of questionnaires in order to collect data such as closed-ended and opened-ended questionnaires since questionnaires can measure both quantitative data and qualitative data, even though some researchers believe that questionnaires are more appropriate for quantitative data collection (Abawi, 2013). According to Popper (1959) and Ackroyd and Hughes (1981), there are a number of advantages of using questionnaires as a tool to collect data. First,

since questionnaires are the tool that helps researcher gather a large amount of information in a short period of time from any number of participants with limited effect on validity and reliability. Despite the fact that the use of questionnaires is widely popular throughout the world, there are also some arguments against the use of questionnaires. It is mainly about the lack of validity of the questionnaires since it is hard to tell how much thought the respondents have put in and whether the answers the respondents have given are true. Moreover, the respondents who share different experiences might read and interpret questionnaire items differently, which, in turn, affects the validity of the instruments. However, it is undeniable that questionnaires are data collecting instruments that can yield a sufficient amount of data without complicated or time-consuming administration.

2.1.4 The related research on self-assessment

An extensive review of the literature has shown that there are both advantages and disadvantages of using self-assessment to collect the data, as shown in research studies conducted across the fields. In this section, relevant research on implementation of self-assessment to measure language proficiency is reviewed.

Chen, Chang, Liu, and He (2008) compared teacher assessment and students' self-assessment on oral performance in English of Chinese students learning English as a foreign language and found that letting students self-assess their own performance in English could lead to a significant progress in learning. The students also felt that they were more involved in the process of rating their performance. The study findings also showed that self-assessment and peer assessment were better than teacher assessment.

To investigate reliability of a self-assessment, a correlation between data elicited with a self-assessment measure can be compared with the data obtained with a more objective measure of the same sort. For example, Runnels (2014) conducted a study with Japanese students and collected the data with a self-assessment survey to measure the reliability of can-do statement scales of the CEFR

Japan's five skills. The results showed that overall reliability was affected by two main factors: the content of self-assessment survey itself and characteristics of the correspondents.

2.2 Aviation English

2.2.1 Definition of aviation English

The great air travel expansion in the 20th century has brought an attention to the safety concerns over pilots and air traffic controllers (ATCs) on how the communication is being communicated with people from all over the world (Estival, Farris, & Molesworth, 2016). The International Civil Aviation Organization (ICAO), a UN specialized agency, was established in 1944 to administer the Chicago Convention, the Convention on International Civil Aviation, which has recommended that the English language be universally used for international aeronautical radiotelephony communications. However, Alderson (2009) has pointed out that even though it is accepted that the language of international radiotelephony communications, particularly those between pilots and air traffic controllers via radiotelephony, is English, there are a great number of pilots and air traffic controllers who lack needed English proficiency. It is generally understood that a lack of language proficiency that leads to miscommunication can, in turn, increase the possibility of air traffic accidents. Přívorová (2016) explains that the three major accidents causing the loss of more than 800 lives have resulted from miscommunications due to insufficient English proficiency. In general, language miscommunications can be caused by incorrect use of standardized phraseologies, lack of plain language proficiency, and the use of more than one language in the same airspace. Therefore, it is imperative that the ICAO demand aviation professionals who are involved in the international operations to be competent at a certain level of English language proficiency.

Aviation English refers to general terms of the English language in aviation and/or aeronautical industry, and it is not only consigned to pilots

and ATCs (Aiguo, 2008). In addition, aviation English is a specialized technology-based language that covers a wide range of activities such as esoteric analyses of compressible fluids, getting a clearance for take-off, as well as selling airplane tickets. Aviation English is altogether trademarked since the language is purposely required for a specific use (Ragan, 1997). Also, aviation English has been known as a highly specialized and constrained language that can jeopardize air to ground communications at a severe risk (Alizieri, 2010).

Aiguo (2008) has pointed out that there were big demands for aviation English in the industry due to two types of factors—external factors and internal factors. As for external factors, nowadays, aviation industries are growing considerably and there is a high demand for pilots, air traffic controllers, flight attendants, flight engineers, and service staffs. They are expected to be professionally capable of communicating with their interlocutors based on work-related topics. The standard of language usage in aviation emphasizes the use of terminologies and phraseologies both in the air and on ground communication. As as there is a wide variation in nationalities, races, language backgrounds, and cultural background of aviation personnel, English is the medium of communication shared by everyone. Thus, aviation English should be taught in a long-term program and a short-term program for aviation personnel as well in curricula of aviation colleges for aviation students.

Despite the fact that English is selected as a key language of communication in aviation, it is not the first language of many professionals who work in the industry. As such, there are a wide variety of English proficiency levels of professionals working in the aviation industry around the world. More importantly, the English language used in the aviation industry is not what is called everyday English. Instead, aviation English can be classified as English for specific purposes or ESPs, which means that it is specially designed for learners and users in aviation or/and aeronautics fields (Aiguo,

2008). Přivorová (2016) defines aviation English as an English for a specific purpose meaning that the usage of the language depends on the professionals and even in the most common situations, a general meaning in a lexicon dictionary cannot closely define the definition of the words used in aviation because of their characteristics. Speech functions, themes, interactive schemata, or conditions are common attributes that can be encountered in aviation language.

Moreover, to talk about the language of the aviation is to talk about the restricted language of aviation. The language of air traffic controllers is a good example of English as a restricted language. Mackay and Mountford (1978) have differentiated between a language and a restricted language as can be seen in the following statement:

> … the language of international air-traffic control could be regarded as 'special', in the sense that the repertoire required by the controller is strictly limited and can be accurately determined situationally, as might be the linguistic needs of a dining-room waiter or air-hostess. However, such restricted repertoires are not languages, just as a tourist phrase book is not grammar. Knowing a restricted 'language' would not allow the speaker to communicate effectively in novel situation, or in contexts outside the vocational environment (pp. 4-5).

Ragan (1997) has explored about a restricted language concerning with aviation and concluded that it tends to draw on a picture of a pilot sitting in a cockpit communicating with Air traffic controllers who are dealing with restricted procedural schemes to maintain the safety of air traffic at all times. However, there is more to aviation English. It can be said that aviation English is commonly used worldwide and it involves human physical skills, as well as human emotions including the complexity of technical terms. Ragan (1997, p. 26) has subdivided aviation English into five different sections as follow:

1. Flight

    i. Air traffic control

    ii. Flight services

2. Technology

    i. Airframe and power plant

    ii. Mechanics

    iii. Avionics

    iv. Aircraft manufacture

    v. Flight line operations

3. Engineering

    i. Aeronautical engineering

    ii. Aerospace engineering

4. Business

    i. Airline charter services

    ii. Fixed based operations

    iii. Airport management

    iv. Marketing

5. Education/Training

    i. Flight

    ii. Maintenance

    iii. Engineering

    iv. Business administration

There are two main points to be looked into regarding who uses the language and the purpose of using the language. These can lead to the concept of register meaning that talking about the register of aviation English is considered the same as talking about the restricted register. Ragan (1997) refers register in the same way to language varieties. They are understood by an individual group of people in a particular situation and in a specific way. Besides, the acquirement of the restricted register is the consequence between the situation and the language. According to Ragan (1997), it is known that the restricted register can be described as a specialized

characteristic of the language usage for a specific group of people to express the meaning without ambiguities. The restricted register is inserted to avoid a blurring occurrence in a conversational or plain English language. For aviation English, it is not only the language for communication between pilots and air traffic controllers, but it is also a language used for safety of the aircraft and everyone involved. Raising an awareness of international language of aviation English used in the aviation industry is therefore essential, and the aviation knowledge should be disseminated depending on the individual needs of students and professionals including native and non-native English speakers.

2.2.2 The related research on Aviation English in Thailand

English for specific researchers have attempted to explore aviation English in the Thai contexts, and a few studies are reviewed in this section.

Parohinog and Meesri (2015) as well investigated the role of Aviation English usage in Thailand where English is not a primary language. Especially, the official language used in aviation business, English, can cause a lot of difficulties for aviation students to comply with the ICAO Language Proficiency Requirements in terms of grammatical structures and interaction in English. Somehow, lacking of a proper interaction using the restricted language in the aviation can be problematic. Meanwhile the Aviation English is the most preferable subject in Thailand for those who want to pursue their career as an airline professional. For that reason, the number of Aviation English students in Thailand is increasingly rising. Even the Asia-Pacific aviation industry alone indeed demands 185,000 pilots, and 243,500 maintenance personnel in the next 20 years (Parohinog & Meesri, 2015).Yet, there still has not a language course that supports the ICAO Language Proficiency Requirements. It is greatly likely that the aviation standards in Thailand are rather below the par set up by the ICAO (Suksiripakonchai, 2012).

Permtanjit (2003) conducted a study to investigate language problems, difficulties, and language needs of English in the aviation industry of Thai

Airways International flight attendants. Questionnaires were administered and interviews were conducted with 105 Thai Airways International flight attendants. The results revealed that the two main difficulties faced by flight attendants while using English in their line of work were the accents of multi-national passengers and flight attendants themselves. Moreover, the speaking and listening skills were considered as the two most important language skills in order to work as a flight attendant. Based on the study findings, it was suggested that more job-related knowledge of English should be added into the existing English curriculum and more English pronunciation courses should be offered.

Moreover, the English language needs of Thai Airways International ground staffs were also explored a study carried out by Tangniam (2006). The ground staffs were recruited from those with three different functions in Thai Airways International by, and data were collected by using a five-point Likert scale survey. The results of the study showed that English proficiency of the participants was only at a fair level. In addition, they agreed that listening and speaking skills were extremely needed while listening was considered the most difficult skill. The study also recommended that the English course provided for ground staffs should emphasize listening and speaking, the skills ground staffs need more to perform their tasks.

All in all, the most important concern seen in related research on aviation English in Thailand is the inadequacy of listening and speaking skills. This may be because since Thai people do not speak English as their first language, their English oral communication skills may not be sufficient to allow them to work efficiently in the aviation industry.

2.3 ICAO Language Proficiency Requirements

2.3.1 ICAO

According to ICAO (2004b), the term 'ICAO' is an abbreviation for International Civil Aviation Organization which is a United Nations specialized

agency. ICAO was established by States in Chicago in 1944 to manage the administration and governance of the Convention on International Civil Aviation. One hundred and ninety-one members (states and industry groups) aim to reach consensus on the standards of civil aviation and recommend practices and policies in maintaining a safe, efficient, secure, economically sustainable, and environmentally responsible civil aviation society. These standards and policies that 191 members have agreed upon are to make sure that the local civil aviation organizations follow the global standards and policies. For example, ICAO allows more than 100,000 daily flights worldwide to operate reliably and safely under ICAO control in every region in the world. Moreover, ICAO is also responsible for producing global plans to assist multinational airlines regarding safety and navigation, monitoring and reporting air transport performance metrics, and in particular auditing airlines organizations about safety and security (ICAO, 2004b). ICAO's functions regarding civil aviation ensure progress in the aviation industry in the modern global society. A healthy and growing air transport system also creates and supports millions of jobs worldwide. It forms part of the economic lifeline of many countries, and it is a catalyst for travel and tourism, the world's largest industry. Beyond economics, air transport enriches the social and cultural fabric of society and contributes to the attainment of peace and prosperity throughout the world (ICAO, 2004b).

The history of ICAO in Asia pacific has officially started in Melbourne, Australia in 1948 as Far East & Pacific Office. Then, it is moved the office to Bangkok, Thailand in 1955 and also was respectfully renamed as Asia and Pacific Office (APAC) in 1980. The main responsibility of ICAO Asia and Pacific office is to foster the planning and implementation by the States of the ICAO provisions (ICAO, 2004b).

2.3.2 Introduction of ICAO Language Proficiency Requirements

English is the language of international aviation communication, and in the past a large number of aviation accidents were caused by

miscommunication between pilots and air traffic controllers, many of whom were not native speakers of the English language (Alderson, 2009). According to ICAO (2010), there are three contributing factors of aviation accidents and incidents that can be caused by problems with the English language:

a. Incorrect use of standardized phraseologies,

b. Lack of plain language proficiency, and

c. The use of more than one language in the same airspace.

Consequently, to minimize aviation accidents and incidents caused by language and communication, ICAO has eventually established the English Language Proficiency Requirements (LPRs) initially for all pilots operating on international routes and all air traffic controllers who communicate with foreign pilots, and after March 5, 2008, all aviation professionals were required by the ICAO to have a certificate attesting to their language proficiency in the language used for international aeronautical communication. These new standards require pilots, air traffic controllers, and airline crews to be able to communicate proficiently using both ICAO phraseology and general English. Even though formal evaluation of language proficiency was required as of March 2008, ICAO effectively extended the deadline to March 5, 2011, after which aviation personnel specified have to complete the assessment (ICAO, 2004b).

The core content of the ICAO Language Proficiency Requirements is that all aviation professionals engaged in or in contact with international flights must be proficient in the English language as a general spoken medium and not simply have a proficiency in standard ICAO radiotelephony phraseology. Those who do not have English proficiency must acquire it, or risk removal from international flight routes.

The ICAO language proficiency requirements are crucial for aviation professionals because it requires all aviation professionals to acquire at least the operational level 4 out of the six levels. Also, they have to re-take the assessment every three years in order to renew the license and to continue

flying international routes. The scale of the ICAO English language
performance is shown in Table 1 (ICAO, 2010, pp. 4.9-4.11).

Table 1

The ICAO English language performance on a scale from 6 to 1

Level	English Language Performance
Level 6	Experts
Level 5	Extended
Level 4	Operational
Level 3	Pre-operational
Level 2	Elementary
Level 1	Pre-elementary

As mentioned above, In order to conform to ICAO Language
Proficiency requirements, all aviation professionals including all others who
use English in communication on international routes must at least be at
level 4 or the operational level of ICAO English Language Proficiency
Requirements in all six scales. Moreover, each of the aviation professional has
to be re-tested every three year in order to maintain the license to fly
international routes. Each level of proficiency is divided in to six skills or
components, each of which is illustrated with holistic descriptors as shown in
Figure 2 below. (See the Appendix A for explanations of the ICAO rating scale
descriptors focusing on level 3 (pre-operational), level 4 (operational), level 5
(extended), and level 6 (expert) of the six skill components.)

Level	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
6 Expert	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately.
5 Extended	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.
4 Operational	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.

Figure 2 ICAO Language Proficiency Rating Scale

(Adapted from ICAO, 2010, pp. A7-A8)

Level	PRONUNCIATION	STRUCTURE	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
3 Pre-operational	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.
2 Elementary	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.	Limited vocabulary range consisting only of isolated words and memorized phrases.	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.	Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.
1 Pre-elementary	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.	Performs at a level below the Elementary level.

Figure 2 ICAO Language Proficiency Rating Scale

(Adapted from ICAO, 2010, pp. A7-A8) cont.

As required by the ICAO, all aviation professionals who fly international routes must be qualified at least level 4. Thai Airways International which is an international airlines company requires its staffs including pilots and flight attendants to be proficient at the level 4 as well as this operational level means aviation professionals at this level are able to operate international flights. However, the actual English language proficiency levels of aviation professionals vary, and they may fall into level 3, level 5, or level 6 as well, even though those who fall into level 6 are more likely to be native speakers of the English language.

2.3.3 The related research on ICAO Language Proficiency Requirements in different contexts

An extensive review of the literature has shown that there is not much research on ICAO, particularly the ICAO Language Proficiency Requirements in Thailand. A few studies that could be found are reviewed below.

Parohinog and Meesri (2015) investigated the proficiency of aviation students based on the six components of the ICAO Language Proficiency Requirements: pronunciation, structure, vocabulary, fluency, comprehension, and interaction. Data collection was made by using a survey and an in-depth interview of university students who were studying the aviation field in Thailand. The results reflected the difficulties that these students encountered in the six components of the ICAO language Proficiency Requirements, particularly grammar or structure, followed by interaction. Besides, the study also suggested that students needed more job-related activities such as role plays and also computer-based lessons.

One example of research conducted overseas is a study undertaken by Moere, Suzuki, Downey, and Cheng (2009) which focused on the development of a language assessment test that met the ICAO Language

Proficiency Requirements. The study was made in respect with the Versant Aviation Test, which was developed by Federal Aviation Administration of the United States for certifying both pilots and air traffic controllers according to ICAO (2014). Basically, the study explored whether the automated scoring or human scoring for this Versant Aviation Test got the better feedback from Australian test-takers. The result showed that test-takers did not engage naturally in the communication for automated scoring as seen in the restricted number of ways they responded to the questions. Moreover, when assessing the six components of the ICAO LPRs separately, automated scoring did not work well compared to multi-tasking skills. As a result, the study suggested that since there were some needs regarding validation of the existing language proficiency scales of ICAO, the assessment that was adopted from the ICAO language Proficiency Requirements should correctly match the skills assessed.

As evident in the aforementioned review, in Thailand the process of implementing ICAO Language Proficiency Requirements was at the very beginning stage, namely planning strategies for implementation, while in English speaking countries the ICAO Language Proficiency Requirements have been more widely implemented.

2.4 The TOEIC test

2.4.1 Definition of the Test of English for International Communication (TOEIC)

The TOEIC test refers to Test of English for International Communication (TOEIC) that measures the ability of test takers who are non-native English speakers to use English in everyday especially work-related activities. The TOEIC was developed by Educational Testing Service (ETS) in USA following a request from the Japanese Ministry of Foreign Trade and Industry (MITI) (Runnels, 2014).

The purpose of the TOEIC is to measure language proficiency in terms of everyday English skills of people working in an international environment

(ETS, 2007). In other words, the TOEIC test measures a person's ability to communicate in English in the context of daily life and the global workplace environment using key expressions and common, everyday vocabulary (Powers, Kim, & Weng, 2008). The scores of the TOEIC test indicate how well test takers can communicate in English with others in the workplace. In short, the TOEIC test can be used to determine the proficiency levels of employees or potential employees, as well as for human resource planning and development in the contexts of business, industry, and commerce (ETS, 2007).

The test takers who take the TOEIC test are those who are preparing to enter the workplace and candidates to training to be conducted in English. They are those who are in English-language training programs. They can be personnel who use English in real-life work settings, such as business, hotels, and restaurants. They can also be employees in international business, commerce, and industry who require English for their work (Bachman & Palmer, 1996; ETS, 2007) The TOEIC test is available throughout the world. Testing can be arranged through corporations or other organizations that ask employees or job applications to take the TOEIC test. In addition, many language-training programs and schools offer TOEIC testing. Therefore, test takers can be groups or individuals who take the TOEIC test in different places as mentioned earlier. The TOEIC test is a paper-and-pencil, multiple-choice form of assessment. It is composed of two parts: listening and reading. The redesigned listening test takes about 45 minutes and in reading test takes about 75 minutes. The outline of the redesigned TOEIC test format is illustrated in the following Table 2.

Table 2

The outline of the redesigned TOEIC test format (ETS, 2008, p.2)

REDESIGNED TOEIC	REDESIGNED TOEIC
Listening Comprehension: 100 items (45 minutes)	Reading Comprehension: 100 items (75 minutes)
Photographs: 10 questions	Incomplete Sentences: 40 questions
Question-Response: 30 questions	Text Completion: 12 questions
Conversations: 30 questions; 10 conversations with 3 questions each	Single Passages: 28 questions; 7–10 reading texts with 2–5 questions each
Talks: 30 questions; 10 talks with 3 questions each	Double Passages: 20 questions; 4 pairs of reading texts with 5 questions per pair

In addition, according to ETS (2016), the new part of TOEIC test which are The TOEIC Speaking & Writing Tests, were designed and introduced in 2006. A new version of the TOEIC Listening & Reading test was also released in the same year. Since the score of these two tests are separated, the test takers can take only one of them. While the TOEIC speaking test was designed to assess only the pronunciation, vocabulary, grammar and fluency, the TOEIC writing test was designed to assess only the grammar, vocabulary, and overall organization. The new parts of TOEIC Speaking & Writing tests were also similarly designed to assess language proficiency in terms of everyday English skills of people working in an international environment, in particularly, business area (ETS, 2007). The TOEIC speaking test takes about 20 minutes to complete the session, while the TOEIC writing test takes 60 minutes. Each test provides scores ranging from 0 to 200 points. Moreover,

the TOEIC speaking test offers eight proficiency levels; the Writing Test offers nine proficiency levels.

2.4.2 The advantages of TOEIC

ETS (2007) claims that TOEIC does not only help businesses build a more effective workforce and give job seekers and employees a competitive edge, but the test also enables universities to better prepare students for the international workplace. Since 1979, the TOEIC has been the standard for assessing English-language skills used in work-related issues. At present, many organizations, companies, and government agencies use the TOEIC scores as a requirement for job seekers. It is also cited by ETS (2016) that the TOEIC provides three main advantages that make the TOEIC test popular among test takers from all over the world which are 1) the TOEIC is a workplace assessment that meets business needs, 2) standardized testing means reliable results, and 3) equal opportunity is offered to all test takers.

Firstly, since the TOEIC test is normally work-related, the questions simulate the real-life situations that are relevant to every workplace in the world. Besides, TOEIC scores can be a proof of qualifications of test takers since its scores provide meaningful and accurate feedback for test takers about their weaknesses and strengths. The TOEIC test can also be the judgment for a company or organization in order to hire, place, or promote employees based on their actual English proficiency. The TOEIC test authenticity is widely accepted. Test authenticity is important test quality as it involves the correspondence of the characteristics of a given language test task to the features of Target Language Use task (Bachman & Palmer, 1996). The language used in the TOEIC test is the natural English language, and the test items are mostly contextualized. Also, the topics in the test are meaningful for the test takers as they are mostly work related or everyday English. Most importantly, the TOEIC test has been proved valid and reliable, so it can be used to correctly measure what it is supposed to measure with consistent results (Bachman & Palmer, 1996; McNamara, 2000).

According to Thomson (2012), one of the clear evidences that TOEIC has been the largest high stakes proficiency tests in South Korea since its inception in 1979. The reasons why test takers in South Korea prefer TOEIC as an English proficiency test (as seen in the large number of South Korean test takers have been tested with TOEIC approximately 2 millions) are the test is trusted worldwide as the international proficiency test that can measure language proficiency of people across the counties, and the test specifications are well constructed and administered (ETS, 2013). Some of the test specifications, for example, the reliability is defined as the consistency of measurement (Bachman & Palmer, 1996) as can be seen that the candidate test takers would get the same score from the same test wherever they test (Hughes, 2003) whereas validity of the test means that the valid test is correctly measure what the test developers want to measure (McNamara, 2000).

The detailed of the reliability, validity, and the practicality of the TOEIC are illustrated below.

Reliability

There are some analyses to be made in order to make the test more reliable.

According to ETS (2007), Reliability of the test may be affected by three factors:1) variability in scoring, 2) conditions of administration, and 3) the quality of the test itself.

1. The analysis of variability in scoring. The approach used to analyze scoring or rating is called inter-rater. Two raters are required to score the tests. However, characteristics of different raters may affect the scoring. TOEIC is multiple choice exam which contains only one correct answer marked by computer so variability in scoring would not affect reliability of test.

2. Another factor to be concern is the test administrations which could threaten consistency. Using test-retest reliability or parallel form could

help find out fluctuation of scores of both tests which are administered in different time. However, there must be no learning or further preparation occur between the two tests administrations. The scores should be similar between both tests so that the test is reliable. The correlation coefficient is the variance shared by two sets of scores. The more percentage of variance is shared, the more reliable the test is. Reliability approach using correlation coefficient value is quite effective to test reliability of the test. However, the limitations of the analysis is the time difference between the two test administrations. The time difference may cause difficulty to control the learning that might occur between the gaps of the two tests.

3. The quality of test itself should be analyzed as source of unreliability. It's important that the test construct measures the ability that it claims to measure. Moreover, the test must be homogenous or highly correlated. There are two approaches that can estimate internal consistency reliability.

3.1 The split-half method is used to estimate the test by placing items in odd number and even number into two halves. Half one contains items with odd number and half two contains items with even number. However, this is not an effective way to test reliability because in each half may contain the test items that don't measure the ability similar to the other half. The two halves are not equivalent if the items are split by odd numbers and even numbers.

3.2 Cronbach's alpha is mostly used to estimate internal consistency of the test. This formula solves the problem of not being able to split the test into halves that are independent and equivalent. Dichotomously scored items or KR20 is acceptable to use to calculate TOEIC score because it is multiple choice exam. It is claimed that TOEIC is calculated with KR20 reliability and the result showed the reliability is as high as .90 meaning the test score is consistent. This method is quite fair because the test is split into halves in every way

possible and estimate the average of the reliability coefficients based on these different splits. The reliability estimates is reliable at .80.

In addition to the measurement of TOEIC test's reliability, the measurement of its validity is also important.

Validity

The test's validation process is fair when test constructs are measured as the test developers claim to measure. However, there are some processes or analyses, such as, analysis of test-taking processes and analysis of correlations among scores that should be integrated to increase the test's validity. Moreover, ETS would not re-issue the TOEIC score after 2 years of testing (ETS, 2013).

Lastly, the standard of TOEIC test is equally made to provide every test taker the equal opportunity to demonstrate proficiency of each of them by giving the strict guidelines to ensure a consistent as well as fair experience to test takers and having the highest quality-control standards results in the most reliable and valid scores available. The high standard of TOEIC test can be clearly seen through its test practicality as shown below:

Practicality

1. Human resources:

1.1 Test writers

Since this kind of test is administered in different countries around the world, many quality test writers and specialists are invited to design the test items and verify their validity and reliability of the tests.

1.2 Scorers or raters

For the TOEIC listening and reading tests, scores are determined by the number of correct answers and checked by the computer, so technicians and answer paper-checking

computers are responsible for scoring the tests. Answer papers can be delivered to the TOEIC centers to check the scores if needed by the universities, schools, and other organizations that officially administrate the tests themselves. There no problems about this matter.

1.3 Test administrators and clerical support

As mentioned earlier, there are many different institutions like universities, schools, and two main centers at Bangkok Main Office and the Northern Region Branch Office that officially organize the tests. Therefore, test takers can take the tests as their convenience. In addition, there are enough well-trained staff to organize and support the test administration.

2. Material resources

Most of the material resources like space, equipment and materials in the test centers are good. However, when the tests are administered outside the centers, the test rooms might be not spacious enough, the CD players might not work well, and the room temperature may be too cold or not cold enough, and so on. These unsystematic factors may affect test takers' scores.

3. Time

The redesigned listening test takes about 45 minutes for 100 items and in reading test takes about 75 minutes for 100 items. Therefore, the test takers must prepare themselves very well, especially doing a lot of practice exercises, so that they can complete the test in time with good scores. Test takers have a few time to decide and choose the correct the best answer for each test item. Due to time constraint, they cannot use their cognitive strategies to complete the tasks as much as they do when they deal with the tasks

in real-world situations. As a result, their test scores might not reflect their real ability to use the target language to do the tasks in real-word contexts.

As mentioned before, the TOEIC test is the test which is trusted worldwide as the international English proficiency test that can measure language proficiency of people across the counties, and the test specifications are well constructed and administered (ETS, 2013). Moreover, one more good point of if all section is completed, the TOEIC required test takers to use multiple strategies (interactiveness) in order to answer the questions. The next part of this chapter, the successful events of TOEIC were discussed.

2.4.3 The success of TOEIC

ETS (2007) cited about the success of TOEIC exam in more efficient recruitment of Thai Airways International that Thai Airways International Public Company Limited which is the biggest airline company operated in Thailand, every one to two years the company recruited an average of 100 - 150 new flight attendants. The recruitment process takes over two weeks for screening, more than 10,000 walk-in candidate applications for basic academic, skill and physical requirements, a very labor-intensive process. However, unfortunately, a large number of the applicants were not be selected. The rest were required to take TOEIC. Only 30-35 percent who took TOEIC met Thai International's minimum TOEIC score of 500, which qualified them for additional interviewing and testing. It seems to be the screening cut off a large number of candidates then TOEIC cut off some more candidates during the screening process so the revision to the recruitment were deemed necessary. Since English was an important skill for the position of the flight attendants, and in fact a minimally acceptable level of English had already been determined by Thai Airways (as represented by the TOEIC 500 since 1988). ETS proposed Thai airways that the process should be adjusted to move the English testing from the end of the process of screening to the

beginning of the process (before screening). Thai airways put the first attention to English skill of the applicants aside from their education, attitude, personality and general appearance qualifications. As a result, there were still enough candidates who are qualified with new requirements that TOEIC score must be submitted along with their screening process. This change helped Thai Airways to refine the recruitment process by ending up with a more homogenous group of eligible applicants. Moreover, the refinement cut down many recruitments expenses and reduced staffs in working while recruiting process. Fortunately, by letting applicants responsible for getting the TOEIC test result, Thai airways also benefit from reducing its outlay for TOEIC testing.

Moreover, according to ETS (2015a), one more success of TOEIC for test takers that can refer their minimum TOEIC score with the global descriptors called CEFR. Common European framework or CEFR is guideline describing the skills required in order to meet the language proficiency in different levels. CEFR is divided into six levels based on language proficiency in 4 fundamental skills which are listening, reading, speaking, and writing. The level A1-A2 are considered to be the basic user, B1-B2 are considered to be Independent user, and C1-C2 are considered to be Proficient user. It is widely known that CEFR offers the descriptive context that used to interpret the significance of the language test scores. If the test score fall into the levels of CEFR, it means that what test takers can do in each level.

ETS (2015a) also cited about the score mapping between the TOEIC listening and reading test scores and CEFR. The mapping is made to ensure that the correlations are reliable and precise all the time as shown in Table 3 below:

Table 3

TOEIC tests score mapping on the CEFR (ETS, 2015b)

CEFR Level	*TOEIC®* Listening& Reading score	General CEFR level description
C1	945-990	• Can understand a wide range of demanding, longer texts, and recognise implicit meaning.
		• Can express him/herself fluently and spontaneously without much obvious searching for expressions.
		• Can use language flexibly and effectively for social, academic and professional purposes.
		• Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.
B2	785-940	• Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation.
		• Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party.
		• Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
B1	550-780	• Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc.
		• Can deal with most situations likely to arise whilst travelling in an area where the language is spoken.
		• Can produce simple connected text on topics, which are familiar, or of personal interest.
		• Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.

CEFR Level	TOEIC® Listening& Reading score	General CEFR level description
A2	225-545	• Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment).
		• Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.
		• Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
A1	120-220	• Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type.
		• Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has.
		• Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

As English plays significant role in aviation industry as a lingua franca. It is necessary to study whether belief of the aviation professions match the ICAO Language Proficiency Requirements. In summary, this study used the self-assessment survey adopted from the ICAO requirements (Level 3-5) to find the correlation between ICAO Language Proficiency Requirements (LPRs) and Test of English for International Communication (TOEIC) of Thai Airways International flight attendants for listening and reading skills.

2.4.4. The related research on TOEIC implementations in different contexts

An extensive review of the literature has shown that TOEIC is widely used across countries in the world as the language proficiency test to assess test takers' English in international environment. In this section, relevant research studies on the TOEIC implementation in different contexts are reviewed.

According to Runnels (2016), TOEIC has been widely used in educational institutions and companies in Japan since 1979 despite the critiques that TOEIC itself provide little useable information about language ability. Whereas the Common European Framework of Reference (CEFR) gains more popularity in Japan since it promotes self-assessment via can do statements, which illustrates the communicative skills that learners are able to perform. This study investigated the relationship between self-assessment scores of CEFR can do statements of Japanese learners with the listening and reading test scores of TOEIC in order to increase the interest of using CEFR as assessment in language learning. The result of the study showed that there was a moderate relationship between self-assessment score with TOEIC listening test score while there was no relationship between self-assessment scores and TOEIC reading score. One plausible reason why the results were different is that the participants of this study felt certain that it was much easier to use perform, based on the CEFR can do statements. Moreover, it was likely that there was a mismatch between the content of CEFR can do statement and TOEIC test score. Therefore, this study suggested that the educational educators must be aware of using TOEIC as an assessment tool for language proficiency. Put differently, TOEIC is not originally designed against the CEFR. Thus, it is likely that the interpretation of the TOEIC test scores may not be valid enough to inform what test takers can do based on the CEFR scales.

Besides, as TOEIC has been known as the English language proficiency test, it is also used to as a tool to indicate levels of English proficiency in

Taiwan context. According to Li and Haggard (2011), TOEIC training courses were used to develop English language proficiency of technical college students by setting two mock-up tests as a pre-test and a post-test. After taking a pre-test, all 42 technical students took a 60-hour TOEIC course. The participants then completed the training course and took a post-test. The score of a pre-test and a post-test were compared. The result of the study revealed that even though the post test scores did not reach the criterion of passing, the TOEIC post-test scores were already increased significantly. In other words, the TOEIC training courses were able to develop English proficiency of the students, but their scores did not reach the expected the criterion of passing TOEIC score (400). The researchers also suggested in order to increase the English proficiency of lower level students is to let those students practice using English as much as possible since it is shown in the result that the English proficiency cannot be increased in the short time.

Lastly, according to Daller and Phelan (2006), in a European context, it is also believed that TOEIC is a well-established test for English as a foreign language as a selection and placement instruments for educational institutions and companies in Europe as well as newly established test called C-test, a kind of placement test. This study thus investigated whether the C-test can partially be the substitution of TOEIC as a placement test since it took lower costs to take the C-test. The participants of this study were French students in the United Kingdom who took the TOEIC test and C-test as the pre-test and the post-test. It was required that all of the participants have to take a 240-hour English course along with the tests. The results of the study unveiled that both of TOEIC test and C-test were reliable, and both the tests' scores increased significantly. Moreover, there was a significant correlation between TOEIC and C-test as shown in their validity. The study also has the implications that as result shown, C-test can be used as convenient measure of English proficiency. Moreover, this study also

suggested that C-test is more appropriate for a large number of test takers to measure their learning progress.

So far, it can be concluded that TOEIC has been widely used to assess test taker's proficiency around the word. However, the TOEIC scores may not be appropriate to indicate test takers' proficiency in all situations and contexts, for example, medical and aviation ones.

Chapter III

Methodology

This chapter discusses the methodology and the procedures used in data collection to determine the relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways flight attendants including research design, population and sample, research instruments, data collection, and data analysis.

3.1 Research design

This study was correlational research which aimed to investigate the relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways flight attendants. Data regarding the opinion toward the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments were also explored.

3.2 Population and Sampling

The population of this study was Thai Airways International flight attendants who used English as a medium of communication with the passengers. There are approximately 3,000 flight attendants of Thai Airways who are responsible for taking care of passengers' safety and providing food and beverage and other services to passengers. The flight attendants of Thai Airways International consisted of both males and females whose age range is between 22 and 60 years old.

The participants of this study were 100 flight attendants working in the economy class of Thai Airways International, all of whom were recruited by means of purposive sampling. There were two inclusion criteria. First, they had been working with the company for more than 12 months to ensure that they had gained some experiences using the English language in their line of work. Second, they had to have the updated TOEIC scores taken no more than two years to reflect their ability to use English as a medium of communication with the customers while working.

Yamane's (1967) formula was used in order to find the proper sample size, which was 100, with the margin of error being approximately 10%.

Of the 100 participants, ten were subsequently selected for the interviews after completing the self-assessment survey. Based on the TOEIC scores, the participants with a high level of English proficiency were purposively asked to join the interviews. Thus, all of the interview participants had their TOEIC scores in the range of 900 to 990 points, equal to B2 to C1 levels of CEFR. This was because they were able to share in depth information about TOEIC test and ICAO LPRs in English smoothly.

3.3 Research instruments

The instruments used in this study were as follows:

3.3.1 The demographic characteristics questionnaire

The demographic characteristics questionnaire was designed by the research to elicit data regarding the participants' demographic characteristics including gender, age, educational background, number of years working as flight attendants with Thai Airways International, their most recent TOEIC scores taken no more than two years, and their perception of their own English proficiency. They were fill-in-the-blank items.

3.3.2 The ICAO LPRs self-assessment survey

The ICAO LPRs self-assessment survey was extracted from the ICAO Language Proficiency Requirements (see Appendix A). The self-assessment survey consisted of 43 items which measured the participants' self-assessed ability based on the ICAO rating scale descriptors divided into six components of pronunciation, structure, vocabulary, fluency, comprehension, and interactions. In this study, each of the six components was divided into three operational levels—level 3 (pre-operational), level 4 (operational), and level 5 (extended). The participants were asked to respond to the following stem-completion items stating, "To what extent do you agree with the following statements?" The items were arranged in a four-point Likert scale with the

responses ranging from 1 (strongly disagree) to 4 (strong agree). A four-point rating scale was chosen to reduce the participants' tendency to select a neutral response, as suggested by (Dörnyei & Taguchi, 2010). The scoring of the four-response choices given to the participants was as follows:

Strongly agree =   4 points

Agree =   3 points

Disagree =   2 points

Strongly disagree =   1 points

It is worth noting that the main purpose of the study was to investigate only level 4 (operational) of the ICAO LPRs as ICAO requires aviation professionals to at least be at this level in order to be qualified for the job. However, items in level 3 (pre-operational) were included to make sure that the participants who were supposed to be at level 4 (operational) actually passed level 3, while items in level 5 (extended) were included to see if any of the participants were able to achieve this. All in all, the scores of each level were calculated individually and all together.

The items included in the self-assessment survey were both positive items and negative items. Of the total 43 items, 14 items were negative, which were items 1.1, 1.4, 2.1, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5.2, 5.4, 6.1, 6.2, and 6.3. Reverse scoring was used with negative items before the total scores and mean scores were calculated.

The ICAO Language Proficiency Requirements (LPRs) self-assessment survey was written in both Thai and English and it was available for free download at www.doc.google.com. Oscarson (1997) has suggested that a self-assessment has generally been found to be more accurate when administered in the native language of the respondents. In this study,

however, the participants were requested to complete the survey in English as they were supposed to be qualified to do so.

3.3.3 The semi-structured interview protocol

The semi-structured interview protocol was designed by the researcher to gather in-depth information regarding the participants' attitudes towards the ICAO Language Proficiency Requirements (LPRs) and the TOEIC test. The semi-structured interview was selected so that the researcher could probe further if any interesting data emerged during the interview sessions. There were ten questions in the interview protocol, and the interviews of the ten selected participants were conducted by the researcher in English. This was because the interview participants were those with a higher level of proficiency and the researcher wanted to avoid misinterpreting the interviewees' original messages when translating the interview data from Thai to English.

During the interview sessions, the researcher asked the participants for permission to audio-record the interviews. Each interview lasted approximately 15 to 20 minutes.

3.3.4 Validation of instruments

The self-assessment questionnaire and the interview protocol of this study were submitted to a panel of three experts to ensure content validity, clarity, and language appropriateness. One was an English instructor with specialization in English language assessment, one was an English instructor with specialization in English for specific purposes (aviation English), and the other was a senior flight attendant who had been teaching English to flight attendants at the Thai Airways International training center.

Each of the three experts was asked to indicate whether they agreed or disagreed with the items contained in the self-assessment survey and the interview protocol by giving the scores of +1 (appropriate), 0 (not sure), and -1 (inappropriate). The mean score of each item was then calculated, and the

items which received the mean score of less than 0.5 were omitted, while those that received the mean scores equal to or higher than 0.5 were retained. Then, the self-assessment survey and the interview protocol were revised and improved based on the experts' comments and suggestions.

3.4 Data collection

In this study, data collection took place in the second semester of the academic year 2016 at Thai Airways International Operations Center in Bangkok, Thailand. The 100 Thai Airways International flight attendants who agreed to participate in this study were asked to complete the self-assessment survey made available online. This process took place in the month of February 2017. After that, ten flight attendants were purposively selected based on their TOEIC scores for the semi-structured interviews. The face-to-face interviews were conducted by the researcher at the Thai Airways International Operations Center in Bangkok.

3.5 Data analysis

To address the research questions, the following analyses were performed. The data from the self-assessment survey were analyzed by means of statistical analysis using the SPSS Program for Windows. First, quantitative data gathered by means of the self-assessments survey were analyzed with descriptive statistics of percentage, mean, and standard deviation. In addition, Pearson's product moment correlation coefficient was employed to determine the relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments. The reason why the inferential statistics of Pearson's product moment correlation coefficient was used was because the type of the variables of this study was the interval scale. Finally, qualitative data elicited using the semi-structured interview protocols were analyzed by means of content analysis.

CHAPTER IV

FINDINGS

The present study was correlational research which aimed to examine the relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways International flight attendants and to explore the Thai Airways International flight attendants' attitudes toward the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments. The participants of this study consisted of 100 Thai Airways International flight attendants who were purposively selected based on the inclusion criteria previously set. Data collection took place from April to May 2017. This chapter presents the findings of the study.

4.1 Demographic characteristics of the study participants

According to the study, the overall number of Thai Airways International flight attendants who were the participants of this study was 100. All 100 Thai Airways International flight attendants had been working in the economy class of Thai Airways International for at least one year to six years. All the participants were purposively selected based on the inclusion criteria; that is, they had to have the updated TOEIC scores and had been working in the economy class of Thai Airways International for at least one year.

Of the total 100 participants, 73 of them were female and 27 were male. In order to apply for the position of Thai Airways International flight attendants, the applicants were required to have the TOEIC scores of 600-990 points. In this study, the TOEIC scores of the participants ranged from 680 to 990 points. The majority of the participants, or 61 of them, got the TOEIC score in the range of 785-940 points which were considered to be equal to B2 level of the Common European Framework of Reference (CEFR). This means that they were able to achieve most goals and express themselves on a range of topics. This was followed by 29 participants who got the scores between 655 and 780, which was equal to B1 level of CEFR. This

means that they were able to express themselves in a limited way in familiar situations and to deal in a general way with non-routine information. Finally, ten participants got the TOEIC scores in the range of 945-990 points, equaling C1 level of CEFR, which means they were able to communicate with the emphasis on how well things were done in terms of appropriateness, sensitivity, and capacity to deal with unfamiliar topics.

In addition, as regards Thai Airways International flight attendants' perception of their overall English language proficiency, ten of them thought that their English language proficiency was excellent, whereas more than half, or 61 participants, thought that their English language proficiency was good, and the rest, or 29 of them, thought that their English language proficiency was fair. The findings regarding the demographic characteristics of the subjects are presented in

Table *4* below.

Table 4

Demographic Characteristics of Thai Airways International Flight attendants (n = 100)

		Number
Sex	*Male*	*27*
	Female	*73*
Work Experience	*1-5 years*	*46*
	5-10 years	*64*
Overall English Proficiency	*Excellent*	*10*
	Good	*61*
	Fair	*29*
	Poor	*0*
TOEIC Scores	*680-780*	*29*
	785-945	*61*
	945-990	*10*

There were 100 Thai Airways International flight attendants who had been working with the company for at least a year who completed the self-assessment survey. Even though the minimum score of the TOEIC requirement for Thai Airways International flight attendants is 600, the minimum score of the participants in this study was 680 points and the maximum score was 990 points, with the mean score of 830.30, which fell into B2 level of the Common European Framework of Reference (CEFR). According to ETS (2008a), test-takers whose TOEIC scores fall into the B1 and B2 levels of CEFR are considered independent users.

As regards the findings of the ICAO LPRs self-assessment survey, the minimum score was 91 and the maximum was 153 out of the total score of 168 points. The mean score of the ICAO LPRs self-assessment survey was 120.34 points *(SD = 10.95)*, as presented in Table 5 below.

Table 5

TOEIC scores and the ICAO LPRs scores (n = 100)

	Min	Max	Mean	Std. Deviation
TOEIC Scores	*680*	*990*	*830.30*	*81.17*
ICAO LPRs	*91*	*153*	*120.34*	*10.95*

4.2 Relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways International flight attendants

Research Question 1: *What is the relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways International flight attendants?*

The relationship between the Test of English for International Communication (TOEIC) scores and the ICAO Language Proficiency Requirements (LPRs) self-assessments of Thai Airways International flight attendants was analyzed by means of inferential statistics of Pearson's Product Moment Correlation. The findings revealed that there was a positive correlation between the ICAO Language Proficiency Requirements (LPRs) (M = 120.34, SD = 10.94) and the Test of English for International Communication (TOEIC) (M = 830.30, SD = 81.17) with statistical significance at the 0.01 level (2-tailed), but this correlation was a weak uphill (positive) linear relationship of 0.38, as illustrated in Table 6.

Table 6

Relationship between the TOEIC test scores and the ICAO LPRs scores

		TOEIC	ICAO LPRs
	Pearson Correlation	1	.38**
TOEIC Scores	Sig. (2-tailed)		.000
	N	100	100

**Correlation was significant at the 0.01 level (2-tailed)

4.3 Additional findings regarding the six ICAO Language Proficiency Requirements

Apart from the main statistical finding concerning the objective of this research, the additional findings regarding the six ICAO Language Proficiency Requirements skills, which were pronunciation, structure, vocabulary, fluency, comprehension, and interactions are also tabulated and described below.

4.3.1 Pronunciation

It was found that there were some concerns of the Thai airways International flight attendants regarding their pronunciation skill. According the findings, for example, the item "*Your accent is so strong as to render comprehension by an international community of aeronautical radiotelephony users very difficult or impossible*" got the highest mean score, while the item "*You can demonstrate a localized regional variety of English*" got the lowest mean score in this category, as can be seen in Table 7.

Table 7

Mean and SD of self-assessment scores of the pronunciation component

Pronunciation	Mean	SD
Q 1.1 Your accent is so strong as to render comprehension by an international community of aeronautical radiotelephony users very difficult or impossible.	2.80	.67
Q 1.2 You can demonstrate a marked accent.	2.75	.59
Q 1.3 You can demonstrate a localized regional variety of English.	2.18	.62
Q 1.4 You may have to pay close attention to understand or may have to clarify something from time to time.	2.26	.60
Q 1.5 You demonstrate a marked accent, or localized regional variety of English, but one which rarely interferes with how easily understood your speech is.	2.50	.63
Q 1.6 Your accents are always clear and understandable, although, only occasionally, a proficient listener may have to pay close attention.	2.90	.63

According to the interview data, it became clear that pronunciation was what the participants lacked and needed to improve, as exemplified in the following excerpts:

> *Of those 6 skills, an emphasis on practices of pronunciation, stress, rhythm, and intonation should be given before we start to work. I have experienced myself that only some groups of the college graduates, particularly those majoring in English or Linguistics, had ever got a chance to familiarize themselves with these topics.* [Participant #1]

I think the skill that needs to be supported the most is pronunciation, especially the variety of languages. We may start with the variety of English because English is the major language we use while working. [Participant #2]

Despite dissatisfaction with speaking skills, the flight attendants accepted the significance of speaking with correct pronunciation, as they described:

Pronunciation is the most important because when something is pronounced incorrectly, it may lead to a different meaning. It can also lead to something worse like mishaps or severe accidents. [Participant #4]

Pronunciation is the most important skill among those six skills because people from different countries have different accents. Therefore, I believe that if pilots or people who are involved with the communication with radiotelephone practice this skill, the language they use should be clearer and easier to understand. [Participant #6]

4.3.2 Structure

With regard to the structure component, the item which received the highest mean score was Q2.4 'You can demonstrate local errors and infrequent global errors and communication is effective overall,' while the item which received the lowest mean score was Q2.1 'Your weak command of basic grammatical structures will limit available range of expressions or result in errors which could lead to misunderstanding,' as shown in Table *8* below.

Table 8

Mean and SD of self-assessment score of the structure component

Structure	Mean	SD
Q 2.1 Your weak command of basic grammatical structures will limit available range of expressions or result in errors which could lead to misunderstanding.	2.56	.77
Q 2.2 You can make a good command of basic grammatical structures.	2.95	.64
Q 2.3 You do not merely have a memorized set of words or phrases on which you rely but have sufficient command of basic grammar to create new meaning as appropriate.	2.78	.61
Q 2.4 You can demonstrate local errors and infrequent global errors and communication is effective overall.	3.10	.58
Q 2.5 You do not usually attempt complex structures, and when you do, quite a lot of errors would be expected, resulting in less effective communication.	2.84	.68
Q 2.6 You demonstrate greater control of complex grammatical structures and may commit global errors from time to time when using complex structures.	2.81	.53
Q 2.7 You could consistently control basic structure, with errors possibly occurring when complex structures and language are used.	2.81	.56
Q 2.8 You have a more sophisticated use of English overall, but will exhibit some errors in the use of complex language structures, but not in your basic structural patterns.	2.88	.48

During the interview sessions, most of the participants explained that if they were able to convey the intended message, the structure may not be of their great concern, as exemplified by one of the participants below:

As a flight attendant, as long as your communication goes so well and clear, there is nothing to be worried about. I do not care much about grammar since I can communicate clearly. [Participant #2]

4.3.3 Vocabulary

In terms of vocabulary, the participants felt that they had the ability to manage their communication by using a paraphrasing technique even when they faced the failure in their communication, as evidenced by the items Q3.6 'You think your ability to paraphrase includes appropriate choices of simple vocabulary and considerate use of speech rate and pronunciation,' and Q3.5 'When faced with a communication breakdown, you can paraphrase and negotiate meaning so that the message is understood,'' which received the highest mean scores of 3.17 and 3.14, respectively.

Table 9

Mean and SD of self-assessment score of the vocabulary component

Vocabulary	Mean	SD
Q 3.1 Your gaps in vocabulary knowledge and/or choice of wrong or non-existent words are apparent which has a negative impact on fluency or results in errors which could lead to misunderstanding.	2.68	.86
Q 3.2 Your frequent inability to paraphrase unknown words or in the process of clarification makes accurate communication impossible.	2.64	.73
Q 3.3 You do not likely to have a well-developed sensitivity to register.	3.01	.75
Q 3.4 You are usually able to manage communication on work-related topics, but may sometimes need clarification.	2.95	.63

Vocabulary	Mean	SD
Q 3.5 When faced with a communication breakdown, you can paraphrase and negotiate meaning so that the message is understood.	3.14	.53
Q 3.6 You think your ability to paraphrase includes appropriate choices of simple vocabulary and considerate use of speech rate and pronunciation.	3.17	.51
Q 3.7 You may display some sensitivity to register, with a lexical range which may not be sufficient to communicate effectively in a broad a range of topics, but with your proficiency will have no trouble paraphrasing whenever necessary.	2.88	.54

The findings from the interview sessions showed that there were essential concerns about the usage of vocabulary in the aviation industry, and the participants felt that they needed to develop their vocabulary further to facilitate their work, as shown in the excerpts below:

Vocabulary is needed to be taught more as in the aviation field there are a lot of technical terms which newcomers will not understand. [Participant #4]

I feel certain that there is a lot more necessary vocabulary that needs to be taught and learned because most of the time we, cabin crew, cannot communicate that well because of a lack of some technical terms. It will be better if we perform professionally with specific vocabulary. It is not so important that we learn the vocabulary in class, but if there are some documents that are provided for cabin crew to access for free, that will be great. I know now we can access these things easily on the Internet, but it

will be better that company gathers all these little details for us. It will be

good. It is more encouraging for us, cabin crew, to learn more of technical

vocabulary. [Participant #2]

As there are many specific words concerning aviation, crew should be

familiar with those terms and definitions for correct and concise

communication. [Participant #9]

4.3.4 Fluency

Most participants seemed to have problems with their fluency, as the item Q4.3 '*You fail to obtain the professional confidence of your interlocutors*' got the highest mean score of 3.16, while the item Q4.7 '*Under appropriate circumstances, your rates significantly higher than the ICAO recommended rate of 100 words per minute can be achieved without negatively affecting intelligibility*' received the lowest mean score of 2.68, as shown below.

Table 10

Mean and SD of self-assessment score of the fluency component

Fluency	Mean	SD
Q 4.1 Your slowness of speech flow is such that communication lacks concision and efficiency.	2.76	.75
Q 4.2 Your long silent pauses frequently interrupt the speech flow.	2.56	.72
Q 4.3 You fail to obtain the professional confidence of your interlocutors.	3.16	.60
Q 4.4 Your speed rate may be slowed by the requirements of language processing but remains fairly constant and does not	3.06	.49

Fluency	Mean	SD
negatively affect the speaker's involvement in communication.		
Q 4.5 You can speak a little faster than the ICAO recommended rate of 100 words per minute if the situation requires.	3.01	.59
Q 4.6 Your rate of speech and organization of discourse approach natural fluency.	2.84	.49
Q 4.7 Under appropriate circumstances, your rates significantly higher than the ICAO recommended rate of 100 words per minute can be achieved without negatively affecting intelligibility.	2.68	.49

According to the findings from the interview sessions, the participants of this study had some awareness of the significance of fluency, as can be seen in the following examples:

Those six skills cover all. In my view, basic skills for communication are divided into listening, speaking, reading, and writing. My working routine mostly concerns listening and speaking. According to the ICAO LPRs, comprehension seems to result from listening. Pronunciation, structure, and vocabulary are components of speaking. The combination of these four skills definitely leads to interaction and fluency. This results in effective communication, which, in my view, is one of the main responsibilities of cabin crew. [Participant #9]

At least the category 4 (Fluency) has to be educated beforehand. Once you get into the job, you will have to communicate orally. [Participant #7]

4.3.5 Comprehension

As illustrated in Table 4.8, the item Q 5.4 'Unmarked or complex textual relations are occasionally misunderstood or missed' received the lowest mean score of 2.14, whereas the item Q 5.3 'You have strategies available which allow you to ultimately comprehend the unexpected or unusual communication' got the highest mean score of 2.95.

Table 11

Mean and SD of self-assessment score of the comprehension component

Comprehension	Mean	SD
Q 5.1 Your comprehension is limited to routine communications in optimum conditions.	2.75	.56
Q 5.2 You would not be proficient enough to understand the full range of radiotelephony communications, including unexpected events, substandard speech behaviors, or inferior radio reception.	2.44	.57
Q 5.3 You have strategies available which allow you to ultimately comprehend the unexpected or unusual communication.	2.95	.48
Q 5.4 Unmarked or complex textual relations are occasionally misunderstood or missed.	2.14	.55
Q 5.5 You achieve a high degree of detailed accuracy in their understanding of aeronautical radiotelephony communications.	2.37	.56
Q 5.6 Your understanding is not hindered by the most frequently encountered non-standard dialects or regional accents, nor by the less well-structured messages that are associated with unexpected or stressful events.	2.44	.61

Further investigation of the interview data revealed that the participants understood that comprehension was important for communication in their line of work, as they described:

Comprehension or understanding is the very first step for communication and problem-solving. [Participant #9]

In real life situations, I think comprehension is most important because the purpose of communication is to get the messages across. [Participant #5]

4.3.6 Interactions

According to the study findings, the participants understood that interaction was important for them in order to work as a flight attendant. They realized that they were able to have good interaction with their interlocutors while they were working. However, they admitted that they had problems with interactions, as evidenced by the fact that item Q 6.3 'You do not gain the confidence of your interlocutors' received the highest mean score among other items in this category. On the other hand, the participants still had problems caused by misunderstanding and lack of understanding while they were interacting with their customers as stated in item Q 6.2 'Your misunderstanding and non-understanding are frequently leading to possible breakdowns in communication' which got the lowest mean score of 2.63, as illustrated in Table 12 below.

Table 12

Mean and SD of self-assessment score of the interactions component

Interactions	Mean	SD
Q 6.1 Your interactions are such that communication lacks concision and efficiency.	2.83	.70
Q 6.2 Your misunderstanding and non-understanding are frequently leading to possible breakdowns in communication.	2.63	.71
Q 6.3 You do not gain the confidence of your interlocutors.	3.16	.58
Q 6.4 When you do not understand an unexpected communication, you must be able to communicate that fact.	3.09	.47
Q 6.5 You query a communication, clarify, or even simply acknowledge that one does not understand rather than to allow silence to mistakenly represent comprehension.	3.07	.56
Q 6.6 You can check, seek confirmation, or clarify a situation or communication.	3.09	.43
Q 6.7 Your interactions are based on high levels of comprehension and fluency.	2.88	.50
Q 6.8 Your skills in checking and seeking confirmation and clarification remain important, but they are less frequently deployed.	2.98	.40
Q 6.9 You are capable of exercising greater control over the conduct and direction of the conversation.	2.86	.47

The findings from the interviews of Thai Airways International flight attendants unveiled some concerns regarding interactions, as can be seen in the following excerpts:

Interaction should be adjusted. As we have learned English after the Thai language, our thinking process is conducted in Thai first and then our thought is translated into English. Responses might be a bit delayed. Especially in unexpected situations, it is quite hard to find correct and appropriate words to communicate as there are no guidance or model sentences. We cannot spontaneously deal with the unplanned events. That is why interaction should be reconsidered in a Thai situation. [Participant #9]

To me, I think interaction is important. Sometimes we could talk to foreigners without knowing or understanding their language, so interaction could play a vital role in that situation. [Participant #5]

Thailand is considered a high context culture and sometimes we don't speak up our mind, we don't give comments, and we don't share information with superiors for fear of reprisal. We need to understand that it's not stupid to be curious or to ask questions. [Participants #8]

Interaction should be taught more because we need to maintain an open communication to prevent a communication failure. [Participant #3]

In addition to findings regarding the individual ICAO Language Proficiency Requirements skills, the overall scores of the individual ICAO Language Proficiency Requirements skills were also tabulated. A comparison of the mean scores of each component of the self-assessment survey showed that the interactions component received the highest mean score, while the comprehension component received the lowest mean score, as shown in Table 13 below.

Table 13

The overall scores of the six components of the ICAO Language Proficiency Requirements

	Pronunciation	Structure	Vocabulary	Fluency	Comprehension	Interactions
Full Score	24	32	28	28	24	36
Min	11.00	16.00	14.00	14.00	10.00	19.00
Max	20.00	29.00	28.00	26.00	20.00	36.00
Mean	15.39	22.73	20.47	20.07	15.09	26.59
Median	15.00	23.00	21.00	20.00	15.00	27.00
Mode	15.00	24.00	21.00	21.00	14.00	27.00
SD	2.04	2.47	2.79	2.57	1.74	2.89

When considering the mean scores of the three levels (levels 3 to 5) of the ICAO Language Proficiency Requirements (ICAO LPRs) that were focused in this study, it could be seen that level 4 received the highest mean score of 2.86, followed by those of levels 5 and 3 at 2.76 and 2.75, respectively. This meant that on average the 100 participants rated themselves at the mean scores of 2.75, 2.86, and 2.76 out of the total scores of 4 points on average when it came to the ICAO operational levels 3, 4, and 5 respectively, meaning that the participants perceived that they were able to perform the requirements of the operational level 4 more than those of levels 3 and 5 even when it was assumed that the mean score of the pre-operational level 3 should have been higher than those of levels 4 (operational) and 5 (extended).

Table 14

The mean, and standard deviation of the ICAO LPRs scores divided into three

operational levels (n = 100)

	Level 3	Level 4	Level 5
Mean	2.75	2.86	2.76
S.D.	0.38	0.27	0.26

4.4 The attitudes of Thai Airways International flight attendants towards the TOEIC
test and the ICAO LPRs

4.4.1 The attitudes of Thai Airways International flight attendant toward the
TOEIC

1.) Job-relatedness

Since the TOEIC test was one of the requirements that all applicants
who would like to apply for the position of flight attendants of Thai Airways
International, the participants of this study were all very familiar with the
TOEIC test. They knew that the TOEIC test was an English proficiency test
that measured everyday English of people working in an international
environment and what the TOEIC was aimed for, as can be seen from the
following examples:

> *It is the test of English designed specifically to measure everyday*
> *English skills of people working in an international environment. I*
> *consider it essential for newly-graduated college students who must*
> *carry this exam result as a basic proof of proficiency for job application.*
> *Moreover, since the TOEIC test focuses on English uses in an*
> *international environment, we need to use this set of job-related*
> *vocabulary to communicate with non-Thai speakers.* [Participant #1]

> *I think the TOEIC is a suitable measurement tool to test people*
> *that work in an airline industry or tourism industry. TOEIC is very*

important because to meet an excellent level of English is quite necessary to become a professional cabin crew. [Participant #4]

For me, the TOEIC test is another English proficiency test for working people. I think people who often use the English language for communication will think the TOEIC exam is not hard for them. One of the basic skills for flight attendants is communication in the English language, so I think the airline must require new crew to have TOEIC scores to show how fluent they are in English communication. [Participant #5]

In my opinion, I think TOEIC is a test to evaluate English proficiency in terms of listening and reading for career. It is one of the major requirements for job application. Each organization requires different scores. For airline business, the applicants should get 600 or above. [Participant #9]

2.) Usefulness

The participants indicated that the TOEIC test was very useful and essential for them as a flight attendant not only for job application but also for their working routine, as mentioned in the excerpts below:

The TOEIC test is important to us as a tool that measures individual language proficiency. It helps us realize which skill should be improved in order to work as a flight attendant. [Participant #2]

The exam itself is good for assessing English skills before getting into the airline industry. [Participant #7]

I feel it is useful and essential. It is very important because the test has both listening and reading components that are useful for flight attendants while they are working." [Participant #8]

3.) Non-practicality

There were also some concerns about the required version of the TOEIC test regarding its lack of practicality. This was because it did not contain the speaking test which was a really important skill for flight attendants in order work in international routes, as exemplified in the example from the interview sessions:

Being a flight attendant, communication is of paramount importance. But since the TOEIC does not include the speaking skill in the test, we cannot know if flight attendants are fluent in the spoken language. I think the TOEIC should include the speaking test as well. This is because a good communication consists of a good listening skill and a good speaking skill. [Participant #3]

Apart from the concerns over a lack of the speaking test, some participants also mentioned that the cut-off score of the TOEIC was considered inadequate for applicants to work as flight attendants who flew international routes, as can be seen in the following examples:

In my view, the TOEIC cut-off score of 600 in order to apply for a flight attendant position is inadequate. Since Thai Airways operates international flights, cabin crews have to deal with English speakers from various backgrounds. They are responsible not only for service provision but also for handling of emergency situations. Therefore, comprehension and communication must be clear and correct. Admittedly, the cut-off score cannot precisely identify who is excellent. [Participant #9]

In my view, it is fair enough to request a 600 TOEIC score for the application, but I personally think the criterion could be slightly adjusted to 650-700 points instead. I could not think of any other options of English tests which may be suitable enough, compared to the TOEIC test. For me, the difficulty level of the TOEIC test is quite moderate. Plus, contents and topics used in the test are widely common and truly job-related. [Participant #1]

The participants of this study had both positive and negative attitudes toward the TOEIC test. In general, they felt that the TOEIC test is useful and directly related to their job.

The findings of the interview revealed that the participants of this study were all very familiar with the TOEIC test and they all agreed that the TOEIC test actually measured their everyday English professionally that helped them fulfill their job responsibilities. However, it is worth noting that there were some flight attendants who felt that the TOEIC test was probably more suitable for workers in the field of business, not airline crews like them. Furthermore, they felt that while they were working, the English language skill they had to use most was the speaking skill, which was not included in the TOEIC test, thus indicating the mismatch between the language assessed by the TOEIC and the language they needed to fulfill their work requirements. Also, some participants shared their opinion that the cut-off score of 600 required by Thai Airways International may be too low, making flight attendants who got the score around the cut-off point unable to work efficiently and effectively when flying on international routes.

4.4.2 The attitudes of Thai Airways International flight attendant toward the ICAO Language Proficiency Requirements

According to the findings, there were both sides of attitudes toward the ICAO LPRs. Both positive and negative attitudes toward the ICAO LPRs are presented below.

1. Occupational requirements

The findings showed that all the participants were quite familiar with the ICAO LPRs, for at least they were able to guess what it was.   Moreover, they understood that the ICAO LPRs were important to them in order to work as flight attendants who flew international routes, as can be seen from the following excerpts:

> *I think I know a little about the ICAO LPRs, but as far as I know, it is very important to make sure that everybody speaks the same language and uses the same lingua. Because the English language used in aviation is not the same as conversational English or plain English that we use in everyday life, it is quite important that we have a global standard to follow in order to make sure that everyone involved has mutual understanding and we are going toward the same direction. Besides, it is also a basic benchmark of communication in the aviation industry, especially air safety.* [Participant #3]

> *In my view, I think since they are the standardized English competency requirements designed by ICAO for those who work in airline-related operations, those requirements are surely important for us who are flight crew. We use English to communicate, especially with non-Thai speakers, on a regular basis on board. Therefore, the ability to use good English is crucial.* [Participant #1]

It is clearly seen that most of the participants were positive that the standards were important to them. However, for some of the participants who thought that the ICAO LPRs were crucial, they commented that the ICAO LPRs seemed to be more suitable for cockpit crews than flight attendants since there was also radio-telephone communication involved, as evidenced below:

> *I think it's very important because flight crews need to contact air traffic controllers in all destinations. If there is a lack of means to communicate in the same direction, it might create some problems or misunderstanding. In my opinion, I think it is very important to have the language proficiency for pilots, air traffic controllers, or other people who need to use radiotelephone to communicate so that they can reach mutual understanding.* [Participant #8]

> *It is very important. As ICAO is one of the main aviation organizations which control and conduct air transportation standards, a flight crew should comply with the requirements or conditions issued by ICAO for efficient air operation. We need to have the ICAO LPRs as they can identify crew's language ability at a specific level. Consequently, crew can be selected to suit a specific position.* [Participant #9]

2. Practicality

In addition to occupational requirements, the ICAO LPRs were perceived by the participants to be practical for their work as flight attendants, as mentioned in the following excerpts:

> *I think those six skills are comprehensive. To be able to communicate well, we have to have all these skills which are enough to have effective communication. Also, I think it is practical for flight crew to have Operational Level 4 of the ICAO LPRs as a prerequisite.*

This is because at this level, flight crew can effectively communicate with passengers with various English communication levels. Moreover, I think every part of the requirements is practical. [Participant #10]

In my opinion, I think those six skills cover the main keys that ensure professionals in the aviation industry are able to communicate proficiently while they are working. [Participant #4]

However, although the participants perceived that the ICAO LPRs were practical, some of them felt that achieving Level 4 was not that easy since they used English as a foreign language, as they explained:

It is a suitable standard. However, it is impractical that all flight crews have to be at Level 4. It might not be a problem for native English speakers such as the Americans and the British since they use English all the time. Meanwhile, other crews whose English is a second or foreign language might find it difficult to achieve that Operational Level 4. Even after having been practicing the English language, they still have to struggle to carry out their conversation with adequate proficiency. The results might not be so good as those of native English speakers. [Participant #9]

The positive attitudes toward ICAO LPRs could clearly be seen in the responses given by the participants even though they may have had some concerns over the difficulty and suitability of the requirements. After all, they agreed that it was good to have some rules or standards to follow because all airlines need to work in collaboration with one another and with others in the aviation industry so as to ensure the quality and safety of services provided to customers.

CHAPTER V

DISCUSSIONS AND CONCLUSION

This chapter concludes the present study by summarizing the findings, discussing the findings, addressing limitations of the study, providing implications of the findings, and presenting recommendations for further studies.

5.1 Summary of the Findings

In this study, out of 100 Thai Airways International flight attendants working in the economy class who participated in the study, 61 of them thought that their English language proficiency was at a good level, while 29 of them thought that their English language proficiency level was fair, and ten thought that their English was excellent.

As for the TOEIC listening and reading score of the participants, the minimum score was 680 and the maximum score was 990, with the mean score of 830.30 (SD = 81.17). This mean score fell into the B2 level of CEFR. According to ETS (2008a), a TOEIC examinee who has the TOEIC score fall into the B1 and B2 levels of CEFR is considered an independent user who can understand the main points of standard input, interact with most situations, and produce simple connected texts.

With regard to the correlation between the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (LPRs) of Thai Airways International flight attendants, Pearson's Product Moment Correlation showed that the correlation was equal to 0.384, which was a positive correlation with statistical significance at the 0.01 level (2-tailed), but it was a weak uphill (positive) linear relationship.

When exploring the attitudes of Thai Airways International flight attendants towards TOEIC, the findings elicited from the interviews revealed that the participants had both positive and negative attitudes toward the TOEIC test. They mainly felt that the TOEIC was useful and directly related to their job. However, some felt that the TOEIC lacked the speaking test and the speaking skill was important for them who

were working in an international environment. In addition, some of the participants further explained that even though the TOEIC test was suitable as a workplace assessment that met the business needs in general, it was not completely suitable for the aviation business which required the use of a different kind of English for specific purposes. Finally, a number of participants mentioned that the cut-off score of the TOEIC was considered inadequate to determine the levels of proficiency of flight attendant who flew international routes.

On the other hand, when it came to the participants' attitudes toward the ICAO Language Proficiency Requirements, during the interview sessions, the participants raised many concerns toward the ICAO LPRs. First of all, the findings showed that all the participants were quite familiar with the ICAO LPRs, as at least they were able to guess what it was. Furthermore, they understood that the standard was important for them in order to work as flight attendants who flew international routes. Also, most of the participants agreed that ICAO LPRs were quite practical for them in order to work in real life. Its practicality may have resulted from the six skills the ICAO LPRs covered. However, some of the participants thought that it was not easy for them to achieve the required level 4 of the ICAO LPRs because the requirements were originally designed for native speakers of the English language, not non-native speakers like them. On the other hand, the negative attitude toward ICAO LPRs is that the language used in the requirements was difficult to understand. Some further explained that some technical terms included in the requirements were too specific, so they were unable to understand them the first time they read. Finally, the participants agreed that the ICAO LPRs was a good requirement for professionals working in the airline industry, but it should not be used as an English proficiency test for them.

5.2 Discussion of the findings

In this section, the findings of this study are explained.

5.2.1 The relationship between the TOEIC test and the ICAO LPRs

The study findings revealed that there was a positive relationship between the ICAO Language Proficiency Requirements (LPRs) and the Test of English for International Communication (TOEIC), but this correlation was a relatively weak correlation that gears toward a moderate relatiosnship. One plausible explanation for such a weak correlation between the Test of English for International Communication (TOEIC) and the ICAO Language Proficiency Requirements (LPRs) of Thai Airways International flight attendants is probably the mismatch in contents of the TOEIC test and the ICAO LPRs. The TOEIC test is an English language proficiency test that focuses on assessing test-takers' everyday English skills of people working in an international environment, while the ICAO LPRs are the standardized English competency requirements that focus on English language used in the aviation profession. Thus, it can be seen that the foci of these two assessment instruments are not completely similar.

One interesting finding of the present study was the interactions component of the ICAO LPRs had higher mean scores than those of the remaining five components. Such a finding indicated that the flight attendants who participated in this study had better performance when it came to interactions using English. However, test-takers' interactive skills were not tested in the TOEIC test. Thus, the TOEIC test's lack of the component that flight attendants were able to perform better than the others may have helped explain the low correlation between the TOEIC test and the ICAO LPRs.

According to Ross (1998), the correlation between the test and the self-assessment survey is likely to be found low if the contents of the test and the self-assessment material do not match. In fact, the TOEIC test focuses on everyday English uses of people who work in an international environment, and not on English for specific purposes, namely aviation English that includes the ability to speak, write, and understand (listen and

read)—in English—aviation meteorology, physics, navigation, maps and charts, electronics and avionics, instrumentation, hydraulics, rules of the air, and air traffic control regulations, for example. Simply put, it focuses on the test-takers' English language proficiency in a specific area. The ICAO LPRs, on the other hand, mainly addresses six English language proficiency skills that mostly used only in the field of aviation.

One example to show that the ICAO LPRs is not suitable to be a language proficiency test is that in Canada, an informal test called the Aviation Language Proficiency Test was used to assess language proficiency in the aviation context of the existing license holders. The test was designed with the content of aviation knowledge for those whose native language was not English. When the test was used, it was found that test takers in Canada performed better in the test written in French since a large number of Canadians use French as their first language (Estival et al., 2016) In addition, according to Alderson (2009), there are some arguments over the quality of the ICAO language proficiency scales, but these scales are still used in the assessment of English proficiency of applicants for an aviation license. Therefore, the ICAO LPRs are considered suitable for being the standard to measure specific language use in the aviation industry. It should not be used as an assessment tool of general English language proficiency and flight crews and air traffic controllers should not be required to take the ICAO LPRs as a language proficiency test.

In addition, a low correlation between the ICAO LPRs and the TOEIC test may have resulted from the flight attendants' unfamiliarity with self-assessment. According to (Race, 2001), self-assessment is a form of self-reflection that is considered the most significant learning tool. In order to successfully administer a self-assessment tool, the assessment should be made intrinsically personal in nature. This means that students should know well whether the evidence meets the criteria or the purposes. In the present study, it is possible that the Thai Airways International flight attendants were

not familiar with self-assessment or had never done self-assessment before. This kind of situation can be easily found in Thailand where students are used to completing the type of assessments that are made by the teachers, not the self-administered assessment tools. According to Runnels (2014), stakeholders should be cautioned when using self-assessment. In addition to unfamiliarity with the nature of self-assessment, it is too easy to cheat when students self-assess because they may want to save face or avoid giving truthful responses. Also, self-assessment can lead to misinterpretation by students who do not have experience completing a self-assessment. Consequently, to ensure effectiveness of self-assessment, there should be training provided to students and students should be made aware of how self-assessment can benefit their language learning such as increasing their goal-oriented motivation (Oscarson, 1997). Students should also be made known that self-assessment can help them to develop their independence or autonomy in learning (Blue, 1994).For these reasons, a low correlation between the ICAO LPRs and the TOEIC test found in this study may have resulted from the participants' lack of previous training on how to complete a self-assessment survey. According to Little (2005), insufficient self-assessment training undertaken by students might be a possibility that could make the correlation weak, as the self-assessment relies on a complex of skills (Little, 2005). Likewise, Dickinson (1987) emphasizes that all language learners must acquire the skill of self-assessment since it is an important skill to acquire a language, and since its value is more beneficial for the learning process than the accuracy (Dieten, 1989), self-assessment should be used more widely in language classes.

The final explanation why a low correlation between the ICAO LPRs and the TOEIC test was found in this study is that the language used in the ICAO LPRs may have been beyond the participants' levels of proficiency. According to Runnels (2014), one of the reasons why the correlation between can-do statement scores and test scores is found weak or moderate is due to

the fact that the participants may not understand the language used in the can-do statements well enough. In the present study, the language used in the ICAO LPRs was directly extracted from the ICAO LPRs descriptors, which may be beyond the proficiency levels of the flight attendants whose English proficiency was at B2 level of CEFR, as determined by their TOEIC scores. In fact, language learners whose English proficiency is at the B2 level are supposed to be able to understand the main ideas of complex texts on both concrete and abstract topics, including technical discussions in their field of specialization (ETS, 2008). In this study, even though attempts had been made to ensure that the self-assessment survey was understandable to the study participants by translating it into the Thai language to help the participants overcome language barriers, it is possible that the language used in the ICAO LPRs remained too complex or unclear for the flight attendants. According to Negishi (2011), there are many studies which found that the lack of understanding or misunderstanding of the self-assessment could lead to a weak correlation. In Negishi's study, the statements in the self-assessment were developed specifically for Japanese university students, so it was discovered that misunderstanding of the statements rarely happened even though some still occurred. Moreover, not only the language but also the task difficulty can significantly affect the reliability of the self-assessment (Sundstroem, 2005). In this study, the level of difficulties of the self-assessment may not have matched language proficiency of the flight attendants, so it resulted in the weak correlation in the end. Last but not least, a lack of explanation of specific definitions on some technical terms may have also led to a lack of clear understanding of the task the participants were required to perform (North, 2007).

5.2.2 Flight attendants' attitudes toward ICAO LPRs and the TOEIC test

The findings from the interview sessions showed both positive and negative attitudes toward the ICAO LPRs and the TOEIC test. It is not uncommon that the attitudes of the participants toward the ICAO LPRs and

the TOEIC test varied. This is because individuals' beliefs, behaviors, and language proficiency can be different (McGuire, Lindzey, & Aronson, 1985). As regards positive attitudes of the participants toward the ICAO LPRs and the TOEIC test, they felt that the TOEIC test was directly related to their job as its focus was placed on everyday English use of people who work in an international environment (ETS, 2007). Moreover, the participants felt that the ICAO LPRs was useful because they mainly addressed six English language proficiency skills that were mostly used in the aviation industry (ICAO, 2010). In general, when language learners feel that something is beneficial for them, they are more likely to develop positive attitudes toward it. For example, Viriya and Wassanasomsithi (2017) investigated the effectiveness of genre awareness instruction and perceived writing self-efficacy and found that the students had positive attitudes toward the instruction because they believed that the content learned in class could be used in a real life context. On the other hand, there were a number of participants who felt that the TOEIC test was more suitable as a workplace assessment that met the business needs in general (ETS, 2007), so it was not completely suitable for the aviation business which required the use of a different kind of English for specific purposes (Permtanjit, 2003). They gave an example that in their actual line of work, there were specific situations which required specific aviation phraseology that was not tested in the TOEIC but the flight attendants should know. Furthermore, some participants felt that the cut-off score of the TOEIC used by the Thai Airways International was too low to enable flight attendants who flew an international route to perform their duties efficiently and effectively. According to Ellis (1997), learners tend to develop negative attitudes if they are not interested in certain things or when those things do not meet their purpose in language learning, or when they have encountered certain difficulties. As a result, it could be seen in the findings of the present study that whether the flight attendants would have positive or negative attitudes toward the TOEIC or the ICAO LPRs mostly depended on their perception of the usefulness, suitability, and difficulty of the instruments.

5.3 Limitations of the study

One of the limitations of this study was that data were gathered with a self-assessment survey considered a self-report instrument. In fact, a self-report instrument should be used with caution as it might not reflect the true responses of the participants as it is supposed to do (Gardner, 2000). In other words, a self-assessment can be fairly unreliable. According to Popper (1959) and Ackroyd and Hughes (1981), a self-report instrument can lack validity because sometimes it is hard to tell how much the participants have put in their thought and whether the answers given by the participants are accurate or true. Also, as different participants have different backgrounds and experiences, they might read and interpret the self-assessment items differently based solely on their own understanding, so the responses may not reflect what the researcher hope to elicit.

Moreover, the study participants consisted of only 100 Thai Airways International flight attendants, so the findings of this study may not be generalized to other flight attendants working for different airlines in Thailand or Thai flight attendants working for foreign airlines.

5.4 Implication of the findings

In this section, the implications of the findings are divided into four parts: implications for Thai Airways International flight attendants, implications for Thai Airways International Company, implications for the aviation industry in Thailand, and implications for test developers.

5.4.1 Implications for Thai Airways International flight attendants

The study findings showed that there were some concerns among the participants who felt that it was not easy for them to achieve the required level 4 of the ICAO LPRs because the requirements were originally designed for native speakers of the English language, not non-native speakers like them. Therefore, the awareness of the flight attendants working for the Thai Airways International should be raised to ensure that they understand the significance of achieving level 4 of the ICAO LPRs, which is, in fact, the safest minimum proficiency skill level (ICAO, 2014) as ICAO LPRs

level 4 also consists of operationally relevant, work-related language, in particular, the aviation English. According to Aiguo (2008), ESP learners such as aviation English or medical English should master the vocabulary in their specific discipline as well as general English language skills. Consequently, the good background of aviation English might be beneficial for flight attendants in order to achieve ICAO LPRs level 4.

5.4.2 Implications for Thai Airways International

According the findings of this study, there is a mismatch between the ICAO LPRs and the TOEIC test in terms of a lack of the speaking test. Since the job as a flight attendant requires the workers to use English speaking skill fluently, their English speaking proficiency should be assessed, preferably with a standardized assessment. It is mentioned in the ICAO LPRs that flight crews with the operation level 4 need to speak English at least appropriately in terms of English pronunciation and fluency. Therefore, the fact that there was no speaking test included in the TOEIC may have affected the relationship between the ICAO LPRs and the TOEIC test. In fact, the original version of the TOEIC test which consisted of only listening and reading parts has been used by Thai Airways International since 1988, while the TOEIC with the speaking and writing parts was designed and introduced in 2006. On the other hand, Operational Level 4 of the ICAO LPRs specifies that flight crews need to speak English at least appropriately in terms of English pronunciation and fluency. As Thailand is not an English-speaking country and it is clearly seen that English speaking is an essential skill in order to work efficiently as flight attendants who have to deal with multi-national customers, Thai Airways International should require the TOEIC speaking score from the applicants who apply for the position of flight attendants in addition to the listening and reading scores. If a standardized test such as the TOEIC is not used, the company should then design a standardized speaking test on their own to make sure that English speaking skills of Thai Airways International flight attendants meet the accepted standard.

5.4.3 Implications for the aviation industry in Thailand

The findings of this study shed light on how well the ICAO Language Proficiency Requirements functioning as international language requirements for those involved in the aviation industry in Thailand. According to Estival et al. (2016), ICAO LPRs is the policy for native speakers which means that it may not be clearly understandable by those whose English is not their native language. Therefore, as in the present study, the language use in the ICAO LPRs descriptors which were extracted to be the questionnaire was quite difficult to comprehend. To ensure more appropriate use of the ICAO LPRs, the descriptors should be revised to enhance clarity and comprehension. Clearer and simpler terms might be used, and the language use in the requirements may be revised or simplified. Likewise, Estival et al. (2016) emphasize that the ICAO LPRs are originally the policy for native speakers of English-native-speaking flight crews and air-traffic controllers of native English speaking countries such as British, Canadian, and Bahamas. Thus, language complexity of the ICAO LPRs needs to be reconsidered before they are used.

When considering the mean scores of the three levels of the ICAO Language Proficiency Requirements, it could be seen that the mean scores of the three levels were not consistent with the levels of difficulty and complexity of the requirements. In this study, the mean score of level 4 (operational) was not only higher than the mean score of level 3 (pre-operational) as it was supposed to but also higher than the mean score of level 5 (extended) when in fact it was supposed to be lower. This may have resulted from the problems with inappropriate use of the language in the descriptors or ambiguous categorization of levels. Such findings reflected the necessity to reconsider the levels of difficulty and complexity of the language used in the requirements. Another plausible explanation is that the original version of the ICAO LPRs was written for native speakers of English, making it difficult for users who are not native speakers of the English language to comprehend the statements contained in the requirements. As for Thailand, those in charge of implementation of the ICAO LPRs may probably need to review the language used in the requirements to make sure that it is not beyond Thai aviation personnel's reach.

Moreover, as mentioned earlier, when it comes to awareness of speaking skills of flight attendants, the application process does not include test of English speaking proficiency. However, these flight attendants need English speaking skills to fulfill their duties and responsibilities when serving the customers and ensuring their on-board safety. Therefore, Thailand's aviation industry should set up the national aviation standardized speaking test for those who want to apply for the job in this industry, not only for flight attendants but also pilots and air traffic controllers. Put another way, designing and developing an aviation national English test which cover all fundamental skills required by the ICAO should be in place to improve the standard of aviation English proficiency of those who work in this industry in Thailand to ensure credibility and trustworthiness of the Thai aviation industry on the global level.

5.4.4 Implications for test developers

Based on the findings of this study, it is clearly seen that there was a mismatch in content between the TOEIC test and the ICAO LPRs self-assessment survey. One plausible reason why such a mismatch has occurred is that the ICAO Language Proficiency Requirements do not reflect the actual English language proficiency level of the test-takers, whereas the TOEIC test only assesses general everyday English in the workplace and not the ESP required, hence making it inadequate for professionals working in the aviation industry. For this reason, a standardized aviation English test should be developed. According to Knoch (2016), one of the reasons why there is an increasing number of the use of the English language assessment for international workplace is that lacking many professions with sufficient English language proficiency can be considered a safety risk. English test developers, therefore, should pay more attention to the English language proficiency in specific professions including aviation to make sure that the English proficiency tests can validly and accurately reflect the English language skills required to meet the job requirements.

5.5 Recommendations for further studies

Based on the findings of the present study, there are two recommendations for further studies as follows:

First, further research should be conducted to investigate the relationship between the ICAO LPRs and the TOEIC test scores by using a larger sample size. To further explain, flight attendants working for other airlines in Thailand may be recruited. Since the participants of the present study consisted of flight attendants from Thai Airways International, they constituted only a small group of population in the aviation industry. As a result, the findings may not be generalized to flight attendants from other Thai airlines or overseas airlines operated in Thailand. Further studies may collect data from flight attendants with different native languages and other groups of aviation personnel who are also required to take the ICAO LPRs and the TOEIC test such as pilots and air traffic controllers. Secondly, further studies should be undertaken with more data collection techniques. In the present study, a survey was conducted to collect data quantitatively by using a self-assessment instrument. A self-assessment may not accurately or comprehensively elicit accurate responses from the participants due to various reasons such as face saving. Consequently, other data collection techniques such as in-depth interviews or observations may be employed to triangulate the findings of the studies. Data may also be gathered from other types of participants such as peer or supervisors of flight attendants to verify the findings obtained from the self-assessment survey.

Lastly, studies should be conducted to determine the relationship between the TOEIC test that flight attendants are required to take and other commonly used scales of English language proficiency such as the Common European Framework of Reference (CEFR) which is one of the most popular global descriptors providing a descriptive context that can be used to interpret what the test-takers should be able to do so as to better determine whether the flight attendants are able to use the English language to effectively perform the tasks they are supposed to.

APPENDIX

APPENDIX A

ICAO LANGUAGE PROFICIENCY REQUIREMENTS DESCRIPTOR (LEVEL 3-6)

Pronunciation

The six levels of pronunciation descriptors are applicable at all levels to native and non-native speakers. This implies that native English speakers may demonstrate Elementary Level 2 proficiency if their regional dialect is so localized that it is not readily understood by those outside of that particular region. On the other hand, speakers whose speech patterns clearly identify them as non-native speakers (having a so-called "accent") may demonstrate Expert Level 6 proficiency, as long as this meets the criterion of "almost never" interfering with ease of understanding.

Pre-operational 3: Pronunciation, stress, rhythm and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding.	Operational 4: Pronunciation, stress, rhythm and intonation are influenced by the first language or regional variation, but only sometimes interfere with ease of understanding.	Extended 5: Pronunciation, stress, rhythm and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding.	Expert 6: Pronunciation, stress, rhythm and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding
Accent at this Pre-operational Level 3 is so strong as to render comprehension by an international community of aeronautical radiotelephony users	Operational Level 4 speakers demonstrate a marked accent, or localized regional variety of English. Occasionally, a proficient listener may have to pay close	Extended Level 5 speakers demonstrate a marked accent, or localized regional variety of English, but one which rarely interferes with how easily understood	An Expert Level 6 speaker may be a speaker of English as a first language with a widely understood dialect or may be a very proficient second-

very difficult or impossible. It should be noted that native or second language speakers may be assessed at this level in cases where a regional variety of the language has not been sufficiently attenuated.	attention to understand or may have to clarify something from time to time. Operational Level 4 is certainly not a perfect level of proficiency; it is the minimum level of proficiency determined to be safe for air traffic control communications. While it is not an Expert level, it is important to keep in mind that pronunciation plays the critical role in aiding comprehension between two non-native speakers of English.	their speech is. They are always clear and understandable, although, only occasionally, a proficient listener may have to pay close attention.	language speaker, again with a widely used or understood accent and/or dialect. The speakers' accent or dialect may or may not identify them as second language users, but the pronunciation patterns or any difficulties or "mistakes" almost never interfere with the ease with which they are understood. Expert speakers are always clear and understandable.

Structure

Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task. Users may refer to the communicative aeronautical language functions, to the list of controller communicative tasks and to the classification of basic and complex structures in Appendix B for guidance. Language teaching specialists generally categorize grammatical errors into two classes: "global" and "local". Global errors are those which interfere with meaning; local errors are those which do not interfere with meaning.

Pre-operational 3: Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning.	Operational 4: Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Extended 5: Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interferes with meaning.	Expert 6: Both basic and complex grammatical structures and sentence patterns are consistently well controlled.
A weak command of basic grammatical structures at this level will limit available range of expression or result in errors which	Operational Level 4 speakers have good command of basic grammatical structures. They do not merely have a memorized set of words or phrases on which they rely but	Extended Level 5 speakers demonstrate greater control of complex grammatical structures than do Operational Level 4 speakers and may commit global errors from time to time when	Expert Level 6 speakers do not demonstrate consistent global structural or grammatical errors but may exhibit some local errors.

could lead to misunderstandings.	have sufficient command of basic grammar to create new meaning as appropriate. They demonstrate local errors and infrequent global errors and communication is effective overall. Level 4 speakers will not usually attempt complex structures, and when they do, quite a lot of errors would be expected resulting in less effective communication.	using complex structures. The critical difference between the Level 4 and Level 5 requirements concerns the use of basic grammatical structures and sentence patterns compared to the use of complex structures (see the glossary of basic and complex structures in Appendix B, Part IV). At Level 5, the structure descriptors refer to consistent control of basic structure, with errors possibly occurring when complex structures and language are used. There is actually a big jump between Level 4 and Level 5. Level 5 speakers will have a more sophisticated use of English overall, but will exhibit some errors in their use of complex language structures, but not in their basic structure patterns.	

Vocabulary

Vocabulary includes individual words and fixed expression. Vocabulary can be classified by the domains of meaning to which it refers. A partial list of vocabulary domains related to aviation communications is found in Appendix B of this manual. While memorizing phraseologies is neither an acceptable means of demonstrating language proficiency nor an effective or recommended language learning strategy, it is undeniable that context is a relevant factor in language proficiency. Therefore, learning or testing that focuses on, or is designed to elicit vocabulary related to, aeronautical radiotelephony communications is preferable.

Pre-operational 3: Vocabulary range and accuracy are often sufficient to communicate on common, concrete or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary.	Operational 4: Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete and work related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.	Extended 5: Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic.	Expert 6: Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced and sensitive to register.

Gaps in vocabulary knowledge and/or choice of wrong or non-existent words are apparent at this level. This has a negative impact on fluency or results in errors which could lead to misunderstandings. The frequent inability to paraphrase unknown words or in the process of clarification makes accurate communication impossible.	An Operational Level 4 speaker will likely not have a well-developed sensitivity to register (see glossary on page (ix)). A speaker at this level will usually be able to manage communication on work-related topics, but may sometimes need clarification. When faced with a communication breakdown, an Operational Level 4 speaker can paraphrase and negotiate meaning so that the message is understood. The ability to paraphrase includes appropriate choices of simple vocabulary and considerate use of speech rate and pronunciation.	Extended Level 5 speakers may display some sensitivity to register, with a lexical range which may not be sufficient to communicate effectively in as broad a range of topics as an Expert Level 6 speaker, but a speaker with Extended proficiency will have no trouble paraphrasing whenever necessary.	Level 6 speakers demonstrate a strong sensitivity to register. Another marker of strong proficiency seems to be the acquisition of, and facility with, idiomatic expressions and the ability to communicate nuanced ideas. As such, use of idioms may be taken into account in assessment procedures designed to identify Level 6 users in a non-radiotelephony context. This is not however intended to imply that idiomatic usages are a desirable feature of aeronautical radiotelephony communications. On the contrary, use of idioms is an obstacle to intelligibility and mutual understanding between non-expert users and should therefore be avoided by all users in this environment.

Fluency

For our purposes, fluency is intended to refer to the naturalness of the flow of speech production, the degree to which comprehension is hindered by any unnatural or unusual hesitancy, distracting starts and stops, distracting fillers (em … huh … er …) or inappropriate silence. Levels of fluency will be most apparent during longer utterances in an interaction. They will also be affected by the degree of expectedness of the preceding input which is dependent on familiarity with scripts or schemata described in Chapter 3.

Pre-operational 3: Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting.	Operational 4: Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting.	Extended 5: Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors.	Expert 6: Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously
The slowness of speech flow at this level is such that communication lacks concision and	Speech rate at this level may be slowed by the requirements of language processing, but	Rate of speech and organization of discourse at this level approach natural fluency.	Fluency at this level is native like or near native-like. It is notably characterized by a high degree of

| efficiency. Long silent pauses frequently interrupt the speech flow. Speakers at this level will fail to obtain the professional confidence of their interlocutors. | remains fairly constant and does not negatively affect the speaker's involvement in communication. The speaker has the possibility of speaking a little faster than the ICAO recommended rate of 100 words per minute if the situation requires (Annex 10, Volume II, 5.2.1.5.3 b)). | Under appropriate circumstances, rates significantly higher than the ICAO recommended rate of 100 words per minute can be achieved without negatively affecting intelligibility. | flexibility in producing language and in adapting the speech rate to the context of communication and the purposes of the speaker. |

Comprehension

This skill refers to the ability to listen and understand. In air traffic control communications, pilots rely on the clear and accurate information provided to them by controllers for safety. It is not sufficient for air traffic controllers to be able to handle most pilot communications; they must be ready for the unexpected. Similarly, pilots must be able to understand air traffic controller instructions, especially when these differ from what a pilot expects to hear. It is during complications in aviation that communications become most crucial, with a greater reliance upon plain language. While comprehension is only one out of six skills in the Rating Scale, it represents half of the linguistic workload in spoken communications.

Pre-operational 3:	Operational 4:	Extended 5:	Expert 6:
Comprehension is often accurate on common, concrete and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.	Comprehension is mostly accurate on common, concrete and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies	Comprehension is accurate on common, concrete and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.

Level 3 comprehension is limited to routine communications in optimum conditions. A pilot or controller at this level would not be proficient enough to understand the full range of radiotelephony communications, including unexpected events, substandard speech behaviours or inferior radio reception.	As with all Operational Level 4 descriptors, comprehension is not expected to be perfectly accurate in all instances. However, pilots or air traffic controllers will need to have strategies available which allow them to ultimately comprehend the unexpected or unusual communication. Unmarked or complex textual relations are occasionally misunderstood or missed. The descriptor of Operational Level 4 under "Interactions" clarifies the need for clarification strategies. Failure to understand a clearly communicated unexpected communication, even after seeking clarification, should result in the assignment of a lower proficiency level assessment.	Level 5 users achieve a high degree of detailed accuracy in their understanding of aeronautical radiotelephony communications. Their understanding is not hindered by the most frequently encountered non-standard dialects or regional accents, nor by the less well-structured messages that are associated with unexpected or stressful events.	Level 6 users achieve a high degree of detailed accuracy and flexibility in their understanding of aeronautical radiotelephony communications regardless of the situation or dialect used. They further have the ability to discern a meaning which is not made obvious or explicit ("read between the lines"), using tones of voice, choice of register, etc., as clues to unexpressed meanings.

Interactions

Because radiotelephony communications take place in a busy environment, the communications of air traffic controllers and pilots must not only be clear, concise and unambiguous, but appropriate responses must be delivered efficiently and a rapid response time is expected. The interactions skill refers to this ability, as well as to the ability to initiate exchanges and to identify and clear up misunderstandings.

Pre-operational 3: Responses are sometimes immediate, appropriate and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.	Operational 4: Responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.	Extended 5: Responses are immediate, appropriate and informative. Manages the speaker/listener relationship effectively	Expert 6: Interacts with ease in nearly all situations. Is sensitive to verbal and nonverbal cues and responds to them appropriately
The interaction features at this level are such that communication lacks concision and efficiency. Misunderstandings and nonunderstandings	A pilot or air traffic controller who does not understand an unexpected communication must be able to communicate that fact. It is much safer to query a	Interactions at this level are based on high levels of comprehension and fluency. While skills in checking, seeking confirmation and clarification remain important, they are	Expert speakers display no difficulties in reacting or initiating interaction. They are additionally able to recognize and to use non-verbal signs of mental and

are frequent leading to possible breakdowns in communication. Speakers at this level will not gain the confidence of their interlocutors.	communication, to clarify, or even to simply acknowledge that one does not understand rather than to allow silence to mistakenly represent comprehension. At Operational Level 4, it is acceptable that comprehension is not perfect 100 per cent of the time when dealing with unexpected situations, but Level 4 speakers need to be skilled at checking, seeking confirmation, or clarifying a situation or communication.	less frequently deployed. On the other hand speakers at this level are capable of exercising greater control over the conduct and direction of the conversation.	emotional states (for example, intonations or unusual stress patterns). They display authority in the conduct of the conversation.

APPENDIX B

ICAO LANGUAGE PROFICIENCY REQUIREMENTS SELF-ASSESSMENT SURVEY

This questionnaire aims to investigate the needs and the problems of English language use in aviation industry. Please complete this questionnaire and send it to the interviewer when you finish. (There are some terms that need to be clarify depending on the context of use).

_____

Part I: Personal information

Directions: Please answer the following questions.

Sex: ☐ Male ☐ Female

Age: _____

Years of working experiences in aviation industry: _____

Position: _____

English proficiency:

☐ Excellent ☐ Good ☐ Fair ☐ Poor

TOEIC scores: _____

_____

Part II: English language skills

Directions: Please mark ✓ in the table each number means.

4 = strongly agree   3 = agree   2 = disagree   1 = strongly disagree

1.) Pronunciation

Level 3

In this Level 3, "accent" refers to mother-tongue accent or first-language accent.

Pronunciation	4	3	2	1
1.1 Your accent is so strong as to render comprehension by an international community of aeronautical radiotelephony users very difficult or impossible. คุณมีสำเนียงชัดเจนมากจนทำให้ความเข้าใจของผู้ใช้โทรศัพท์ทางไกลระบบไร้สายในประชาคมระหว่างประเทศเป็นเรื่องยากหรือเป็นไปไม่ได้				

Level 4

In this Level 4, "accent" refers to standardized English language accent.

Pronunciation	4	3	2	1
1.2 You can demonstrate a marked accent. คุณสามารถใช้สำเนียงเสียงหนักเบาได้ชัดเจน				
1.3 You can demonstrate a localized regional variety of English. คุณสามารถใช้สำเนียงภาษาอังกฤษของท้องถิ่นได้				
1.4 You may have to pay close attention to understand or may have to clarify something from time to time. คุณอาจจะต้องตั้งใจอย่างมากที่จะทำความเข้าใจ หรืออาจจะต้องอธิบายบางอย่างเพิ่มเติมเพื่อความชัดเจนในบางครั้ง				

Level 5

In this Level 5, "accent" refers to standardized English language accent.

Pronunciation	4	3	2	1
1.5 You demonstrate a marked accent, or localized regional variety of English, but one which rarely interferes with how easily understood your speech is. คุณสามารถใช้สำเนียงเสียงหนักเบาได้ชัดเจน หรือ สามารถใช้สำเนียงภาษาอังกฤษของท้องถิ่นได้ โดยไม่ค่อยมีผลต่อการเข้าใจคำพูดของคุณ				
1.6 Your accents are always clear and understandable, although, only occasionally, a proficient listener may have to pay close attention. สำเนียงของคุณมีความชัดเจนและเข้าใจได้ง่ายเสมอแม้ว่าบางครั้งผู้ฟังที่มีความเชี่ยวชาญอาจต้องตั้งใจฟังเป็นพิเศษ				

2.) Structure

Level 3

Structure	4	3	2	1
2.1 Your weak command of basic grammatical structures will limit available range of expression or result in errors which could lead to misunderstandings. โครงสร้างทางไวยากรณ์ขั้นพื้นฐานที่อ่อนของคุณ จะจำกัดขอบเขตของการแสดงความคิดหรือทำให้เกิดข้อผิดพลาดซึ่งอาจนำไปสู่ความเข้าใจผิดได้				

<u>Level 4</u>

In this Level 4, 1.) Global error refers to an error in sentence structure, 2.) Local error refers to an error in words level.

Structure	4	3	2	1
2.2 You can make a good command of basic grammatical structure. คุณสามารถใช้โครงสร้างไวยากรณ์พื้นฐานได้เป็นอย่างดี				
2.3 You do not merely have a memorized set of words or phrases on which you rely but have sufficient command of basic grammar to create new meaning as appropriate. คุณไม่เพียงแต่มีชุดคำศัพท์หรือวลีที่นำมาใช้ได้เท่านั้น แต่คุณยังมีไวยากรณ์พื้นฐานมากพอที่จะนำมาสร้างความหมายใหม่ได้ตามความเหมาะสม				
2.4 You can demonstrate local errors and infrequent global errors and communication is effective overall. คุณมีการใช้คำผิดๆอยู่บ้าง และนานๆครั้งจะพูดประโยคผิดๆ แต่โดยรวมแล้วคุณยังสามารถสื่อสารได้อย่างมีประสิทธิภาพ				
2.5 You do not usually attempt complex structures, and when you do, quite a lot of errors would be expected resulting in less effective communication. คุณมักจะไม่พยายามใช้โครงสร้างประโยคที่ซับซ้อน และในเวลาที่คุณพยายามก็จะมีข้อผิดพลาดมาก ซึ่งส่งผลให้การสื่อสารมีประสิทธิภาพน้อยลง				

Level 5

In this Level 5, global error refers to an error in sentence structure.

Structure	4	3	2	1
2.6 You demonstrate greater control of complex grammatical structures and may commit global errors from time to time when using complex structures. คุณมีการใช้การควบคุมโครงสร้างไวยากรณ์ที่ซับซ้อนที่ดีขึ้นและมีข้อผิดพลาดในประโยคได้บางครั้งเมื่อใช้โครงสร้างที่ซับซ้อน				
2.7 You could consistently control basic structure, with errors possibly occurring when complex structures and language are used. คุณสามารถควบคุมโครงสร้างพื้นฐานได้เสมอโดยมีข้อผิดพลาดเกิดขึ้นได้บ้างเมื่อใช้โครงสร้างและภาษาที่ซับซ้อน				
2.8 You have a more sophisticated use of English overall, but will exhibit some errors in their use of complex language structures, but not in your basic structure patterns. โดยรวมๆ คุณมีการใช้ภาษาอังกฤษที่ซับซ้อนมากขึ้น แต่ยังมีข้อผิดพลาดบางอย่างในการใช้โครงสร้างภาษาที่ซับซ้อน แต่ไม่ได้อยู่ในรูปแบบโครงสร้างพื้นฐานของคุณ				

3.) Vocabulary

Level 3

Vocabulary	4	3	2	1
3.1 Your Gaps in vocabulary knowledge and/or choice of wrong or non-existent words are apparent which has a negative impact on fluency or results in errors which could lead to misunderstandings. การขาดความรู้ด้านคำศัพท์และ/หรือการเลือกใช้คำที่ผิดหรือไม่มีอยู่จริงของคุณนั้นชัดเจนมาก ทำให้มีผลกระทบเชิงลบต่อความคล่องแคล่วหรือทำให้เกิดข้อผิดพลาดซึ่งอาจนำไปสู่ความเข้าใจผิดได้				
3.2 Your frequent inability to paraphrase unknown words or in the process of clarification makes accurate communication impossible บ่อยครั้ง การขาดความสามารถในการถอดความคำที่คุณไม่รู้จักหรือในขั้นตอนการอธิบายของคุณทำให้การสื่อสารที่ถูกต้องเป็นไปไม่ได้				

Level 4

Vocabulary	4	3	2	1
3.3 You do not likely to have a well-developed sensitivity to register. คุณมีแนวโน้มที่จะไม่สามารถรับรู้ระดับของภาษาได้ดีนัก				
3.4 You are usually able to manage communication on work-related topics, but may sometimes need clarification. คุณมักจะสามารถจัดการการสื่อสารในหัวข้อที่เกี่ยวข้องกับการทำงานได้ แต่บางครั้งอาจต้องการการอธิบายเพิ่มเติมบ้าง				

Vocabulary	4	3	2	1
3.5 When faced with a communication breakdown, you can paraphrase and negotiate meaning so that the message is understood. เมื่อต้องเผชิญกับความล้มเหลวในการสื่อสาร คุณสามารถถอดความและปรับความหมายใหม่เพื่อให้สารของคุณเป็นที่เข้าใจได้				
3.6 You think your ability to paraphrase includes appropriate choices of simple vocabulary and considerate use of speech rate and pronunciation. คุณคิดว่าความสามารถในการถอดความของคุณนั้นรวมไปถึงการเลือกใช้คำศัพท์ง่ายๆ และการสื่อสารที่มีความเร็วเหมาะสมและมีการออกเสียงอย่างถูกต้อง				

Level 5

Vocabulary	4	3	2	1
3.7 You may display some sensitivity to register, with a lexical range which may not be sufficient to communicate effectively in as broad a range of topics, but with your proficiency will have no trouble paraphrasing whenever necessary. คุณมีความไวต่อระดับของภาษา แต่ขอบเขตคำศัพท์ที่ใช้อาจไม่เพียงพอที่จะทำให้สื่อสารหัวข้อที่หลากหลายได้อย่างมีประสิทธิภาพ อย่างไรก็ตามด้วยความสามารถของคุณ มักจะทำให้ไม่มีปัญหาในการถอดความเมื่อจำเป็น				

4.) Fluency

<u>Level 3</u>

Fluency	4	3	2	1
4.1 Your slowness of speech flow is such that communication lacks concision and efficiency. ความช้าของการพูดของคุณนั้นมักจะทำให้การสื่อสารขาดความกระชับและความมีประสิทธิภาพ				
4.2 Your long silent pauses frequently interrupt the speech flow. การหยุดเงียบนานๆของคุณขัดจังหวะการพูดที่ต่อเนื่อง				
4.3 You fail to obtain the professional confidence of your interlocutors. คุณไม่ได้รับความเชื่อมั่นในฐานะที่เป็นมืออาชีพจากคู่สนทนาของคุณ				

<u>Level 4</u>

Fluency	4	3	2	1
4.4 Your speed rate may be slowed by the requirements of language processing, but remains fairly constant and does not negatively affect the speaker's involvement in communication. อัตราความเร็วในการพูดของคุณอาจช้าลงตามความจำเป็นในการประมวลภาษาแต่ยังคงค่อนข้างต่อเนื่องและไม่ส่งผลเสียต่อการมีส่วนร่วมของผู้พูดในการสื่อสาร				
4.5 You can speak a little faster than the ICAO recommended rate of 100 words per minute if the situation requires. คุณสามารถพูดได้เร็วกว่า 100 คำต่อนาทีตามที่ ICAO แนะนำ หากตกอยู่ในสถานการณ์จำเป็น				

Level 5

Fluency	4	3	2	1
4.6 Your rate of speech and organization of discourse approach natural fluency. อัตราความเร็วในการพูดและการเรียบเรียงวาทกรรมของคุณ มีความคล่องแคล่วอย่างเป็นธรรมชาติ				
4.7 Under appropriate circumstances, your rates significantly higher than the ICAO recommended rate of 100 words per minute can be achieved without negatively affecting intelligibility. ในโอกาสที่เหมาะสม อัตราความเร็วในการพูดของคุณจะสูงกว่าอัตราที่แนะนำโดย ICAO ที่ 100 คำต่อนาที และไม่มีผลทางลบต่อการทำความเข้าใจ				

5.) Comprehension

Level 3

Comprehension	4	3	2	1
5.1 Your comprehension is limited to routine communications in optimum conditions. ความเข้าใจของคุณจะถูกจำกัดอยู่ที่การสื่อสารตามปกติในสภาวะที่เหมาะสม				
5.2 You would not be proficient enough to understand the full range of radiotelephony communications, including unexpected events, substandard speech behaviors or inferior radio reception.				

Comprehension	4	3	2	1
คุณไม่เชี่ยวชาญพอที่จะทำความเข้าใจกับการสื่อสารทางวิทยุโทรศัพท์ได้อย่างครบถ้วนรวมถึงเหตุการณ์ที่ไม่คาดคิด พฤติกรรมการพูดที่ไม่เป็นไปตามมาตรฐานหรือการรับสัญญาณวิทยุที่ต่ำ				

Level 4

Comprehension	4	3	2	1
5.3 You have strategies available which allow you to ultimately comprehend the unexpected or unusual communication. คุณมีกลยุทธ์ที่จะช่วยให้คุณเข้าใจการสื่อสารที่ไม่คาดคิดหรือที่ไม่คุ้นเคย				
5.4 Unmarked or complex textual relations are occasionally misunderstood or missed. ความสัมพันธ์ของเนื้อความที่คลุมเครือหรือซับซ้อนจะถูกเข้าใจผิด หรือพลาดไปบ้างเป็นครั้งคราว				

Level 5

Comprehension	4	3	2	1
5.5 You achieve a high degree of detailed accuracy in their understanding of aeronautical radiotelephony communications. คุณมีความแม่นยำในรายละเอียดสูงในเรื่องความเข้าใจเกี่ยวกับการสื่อสารทางวิทยุสื่อสารทางอากาศ				
5.6 Your understanding is not hindered by the most frequently encountered non-standard dialects or regional				

accents, nor by the less well-structured messages that are associated with unexpected or stressful events. ความเข้าใจของคุณจะไม่มีอุปสรรคจากภาษาถิ่นที่ไม่ได้มาตรฐานหรือ สำเนียงตามภูมิภาคที่ไม่ได้มาตรฐานที่พบได้บ่อย และด้วยสารที่ไม่ได้ เรียบเรียงโครงสร้างอย่างดีที่เกี่ยวข้องกับเหตุการณ์ที่ไม่คาดคิดหรือที่ตึง เครียด				

6.) Interactions

<u>Level 3</u>

Interactions	4	3	2	1
6.1 Your interactions are such that communication lacks concision and efficiency. ปฏิสัมพันธ์ของคุณทำให้การสื่อสารขาดความกระชับและประสิทธิภาพ				
6.2 Your misunderstandings and non- understandings are frequent leading to possible breakdowns in communication. ความเข้าใจผิดและการขาดความเข้าใจของคุณมักทำให้การสื่อสาร หยุดชะงักหรือล้มเหลว				
6.3 You do not gain the confidence of your interlocutors. คุณไม่ได้รับความมั่นใจจากคู่สนทนาของคุณ				

Level 4

Interactions	4	3	2	1
6.4 When you do not understand an unexpected communication, you must be able to communicate that fact. เมื่อคุณไม่เข้าใจการสื่อสารที่ไม่คาดคิดคุณยังต้องสามารถสื่อสาร ความจริงดังกล่าวให้ได้				
6.5 You query a communication, clarify, or even simply acknowledge that one does not understand rather than to allow silence to mistakenly represent comprehension. คุณมักจะตั้งคำถาม อธิบายเพิ่มเติมหรือยอมรับว่าไม่เข้าใจแทนที่จะ ปล่อยให้ความเงียบทำให้คนอื่นเข้าใจผิดว่าคุณเข้าใจแล้ว				
6.6 You can check, seek confirmation, or clarify a situation or communication. คุณสามารถตรวจสอบ ยืนยันหรือชี้แจงสถานการณ์หรือการสื่อสารได้				

Level 5

Interactions	4	3	2	1
6.7 Your interactions are based on high levels of comprehension and fluency. ปฏิสัมพันธ์ของคุณขึ้นอยู่กับระดับความเข้าใจและความคล่องแคล่วใน ระดับสูง				
6.8 Your skills in checking, seeking confirmation and clarification remain important, they are less frequently deployed.				

Interactions	4	3	2	1
ทักษะในการตรวจสอบ การหาการยืนยันและการอธิบายความยังคงมีความสำคัญ ถึงแม้ว่าทักษะนี้เหล่านี้ไม่ได้ถูกนำมาใช้มากนัก				
6.9 You are capable of exercising greater control over the conduct and direction of the conversation. คุณสามารถควบคุมและกำหนดทิศทางของการสนทนาได้				

Comment _____

_____

_____

_____

_____

_____

APPENDIX C

DESCRIPTIVE STATISTICS FOR EACH SKILL

		aveQ1	aveQ2	aveQ3	aveQ4	aveQ5	aveQ6
N	Valid	100	100	100	100	100	100
Mean		2.5650	2.8413	2.9243	2.8671	2.5150	2.9544
Median		2.5000	2.8750	3.0000	2.8571	2.5000	3.0000
Mode		2.50	3.00	3.00	3.00	2.33	3.00
Std. Deviation		.34074	.30919	.39968	.36732	.29022	.32059
Minimum		1.83	2.00	2.00	2.00	1.67	2.11
Maximum		3.33	3.63	4.00	3.71	3.33	4.00
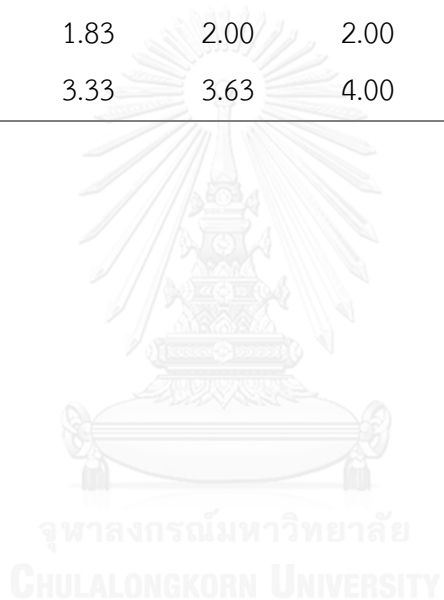
APPENDIX D

DESCRIPTIVE STATISTIC FOR EACH ITEM

	N	Minimum	Maximum	Mean	Std. Deviation
TOEIC score	100	680.00	990.00	830.3000	81.17141
Q1.1	100	1.00	4.00	2.8000	.66667
Q1.2	100	1.00	4.00	2.7500	.59246
Q1.3	100	1.00	4.00	2.1800	.62571
Q1.4	100	1.00	4.00	2.2600	.59662
Q1.5	100	1.00	4.00	2.5000	.62765
Q1.6	100	1.00	4.00	2.9000	.62765
Q2.1	100	1.00	4.00	2.5600	.76963
Q2.2	100	1.00	4.00	2.9500	.64157
Q2.3	100	1.00	4.00	2.7800	.61266
Q2.4	100	1.00	4.00	3.1000	.57735
Q2.5	100	1.00	4.00	2.8400	.67749
Q2.6	100	1.00	4.00	2.8100	.52599
Q2.7	100	1.00	4.00	2.8100	.52599
Q2.8	100	2.00	4.00	2.8800	.47737
Q3.1	100	1.00	4.00	2.6800	.86316
Q3.2	100	1.00	4.00	2.6400	.73195
Q3.3	100	1.00	4.00	3.0100	.74529
Q3.4	100	1.00	4.00	2.9500	.62563
Q3.5	100	2.00	4.00	3.1400	.53220
Q3.6	100	2.00	4.00	3.1700	.51355
Q3.7	100	1.00	4.00	2.8800	.53711
Q4.1	100	1.00	4.00	2.7600	.75371
Q4.2	100	1.00	4.00	2.5600	.71520
Q4.3	100	1.00	4.00	3.1600	.59831
Q4.4	100	1.00	4.00	3.0600	.48866

	N	Minimum	Maximum	Mean	Std. Deviation
Q4.5	100	1.00	4.00	3.0100	.59450
Q4.6	100	1.00	4.00	2.8400	.48659
Q4.7	100	2.00	4.00	2.6800	.48990
Q5.1	100	1.00	4.00	2.7500	.55732
Q5.2	100	1.00	4.00	2.4400	.57419
Q5.3	100	2.00	4.00	2.9500	.47937
Q5.4	100	1.00	4.00	2.1400	.55085
Q5.5	100	1.00	3.00	2.3700	.56237
Q5.6	100	1.00	4.00	2.4400	.60836
Q6.1	100	1.00	4.00	2.8300	.69711
Q6.2	100	1.00	4.00	2.6300	.70575
Q6.3	100	2.00	4.00	3.1600	.58119
Q6.4	100	2.00	4.00	3.0900	.47344
Q6.5	100	2.00	4.00	3.0700	.55514
Q6.6	100	2.00	4.00	3.0900	.42865
Q6.7	100	1.00	4.00	2.8800	.49808
Q6.8	100	2.00	4.00	2.9800	.40151
Q6.9	100	2.00	4.00	2.8600	.47183
sumsurvey	100	91.00	153.00	120.3400	10.94451

APPENDIX E

FREQUENCY OF EACH SKILL

Question 1: Pronunciation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11.00	2	2.0	2.0	2.0
	12.00	9	8.9	9.0	11.0
	13.00	6	5.9	6.0	17.0
	14.00	14	13.9	14.0	31.0
	15.00		22.8	23.0	54.0
	16.00	18	17.8	18.0	72.0
	17.00	10	9.9	10.0	82.0
	18.00	11	10.9	11.0	93.0
	19.00	6	5.9	6.0	99.0
	20.00	1	1.0	1.0	100.0
	Total	100	99.0	100.0	

Question 2: Structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16.00	1	1.0	1.0	1.0
	18.00	3	3.0	3.0	4.0
	19.00	8	7.9	8.0	12.0
	20.00	8	7.9	8.0	20.0
	21.00	10	9.9	10.0	30.0
	22.00	14	13.9	14.0	44.0
	23.00	14	13.9	14.0	58.0
	24.00	20	19.8	20.0	78.0
	25.00	8	7.9	8.0	86.0
	26.00	10	9.9	10.0	96.0

	Frequency	Percent	Valid Percent	Cumulative Percent
27.00	2	2.0	2.0	98.0
28.00	1	1.0	1.0	99.0
29.00	1	1.0	1.0	100.0
Total	100	99.0	100.0	

Question 3: Vocabulary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14.00	1	1.0	1.0	1.0
	15.00	3	3.0	3.0	4.0
	17.00	7	6.9	7.0	11.0
	18.00	14	13.9	14.0	25.0
	19.00	16	15.8	16.0	41.0
	20.00	8	7.9	8.0	49.0
	21.00	22	21.8	22.0	71.0
	22.00	10	9.9	10.0	81.0
	23.00	7	6.9	7.0	88.0
	24.00	2	2.0	2.0	90.0
	25.00	3	3.0	3.0	93.0
	26.00	3	3.0	3.0	96.0
	27.00	3	3.0	3.0	99.0
	28.00	1	1.0	1.0	100.0
	Total	100	99.0	100.0	

Question 4: Fluency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	14.00	2	2.0	2.0	2.0
	15.00	2	2.0	2.0	4.0
	16.00	6	5.9	6.0	10.0
	17.00	4	4.0	4.0	14.0
	18.00	14	13.9	14.0	28.0
	19.00	13	12.9	13.0	41.0
	20.00	14	13.9	14.0	55.0
	21.00	16	15.8	16.0	71.0
	22.00	11	10.9	11.0	82.0
	23.00	9	8.9	9.0	91.0
	24.00	5	5.0	5.0	96.0
	25.00	3	3.0	3.0	99.0
	26.00	1	1.0	1.0	100.0
	Total	100	99.0	100.0	

Question 5: Comprehension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.00	1	1.0	1.0	1.0
	11.00	1	1.0	1.0	2.0
	12.00	2	2.0	2.0	4.0
	13.00	10	9.9	10.0	14.0
	14.00	30	29.7	30.0	44.0
	15.00	16	15.8	16.0	60.0
	16.00	17	16.8	17.0	77.0
	17.00	15	14.9	15.0	92.0
	18.00	6	5.9	6.0	98.0

	Frequency	Percent	Valid Percent	Cumulative Percent
19.00	1	1.0	1.0	99.0
20.00	1	1.0	1.0	100.0
Total	100	99.0	100.0	

Question 6: Interactions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19.00	1	1.0	1.0	1.0
	20.00	2	2.0	2.0	3.0
	21.00	2	2.0	2.0	5.0
	22.00	1	1.0	1.0	6.0
	24.00	13	12.9	13.0	19.0
	25.00	16	15.8	16.0	35.0
	26.00	12	11.9	12.0	47.0
	27.00	24	23.8	24.0	71.0
	28.00	12	11.9	12.0	83.0
	29.00	6	5.9	6.0	89.0
	30.00	3	3.0	3.0	92.0
	31.00	4	4.0	4.0	96.0
	33.00	1	1.0	1.0	97.0
	35.00	1	1.0	1.0	98.0
	36.00	2	2.0	2.0	100.0
	Total	100	99.0	100.0	

REFERENCES

Abawi, K. (2013). *Data Collection Instruments (Questionnaire & Interview)*. Paper presented at the Training in Sexual and Reproductive Health Research Geneva 2013 Geneva.

Ackroyd, S., & Hughes, J. A. (1981). *Data Collection in Context*: Longman.

Aiguo, W. (2008). Reassessing the position of AviationEnglish: from a special language to English for Specific Purposes *IBÉRICA, 15*, 151-164.

Alderson, C. J. (2009). Air safety, language assessment policy, and policy implementation : The case of aviation English. *Annual Review of Applied Linguistics, 29*, 168–187.

Alizieri, S. (2010). *Aviation English: Analysis of corpus data and tentative proposal for a learner corpus.* (Doctoral), Università Degli Studi di Pavia, Pavia, Italy.

Bachman, L. F., & Palmer, A. S. (1996). *Language testing in practice*. Oxford: Oxford University Press.

Bertram, D. (2012). Likert Scales Retrieved from http://poincare.matf.bg.ac.rs/~kristina/topic-dane-likert.pdf

Blue, G. M. (1994). Self-Assessment of Foreign Language Skills: Does It Work? *CLE Working Papers, 3*, 18-35.

Boonkit, K. (2010). Enhancing the development of speaking skills for non-native speakers of English. *Procedia - Social and Behavioral Sciences., 2*(2), 1305-1309.

Bussinessdictioanry.com. International Civil Aviation Organization(ICAO)

Retrieved from http://www.businessdictionary.com/definition/International-Civil-Aviation-Organization-ICAO.html

Chen, X., Chang, L., Liu, H., & He, Y. (2008). Effects of the Peer Group on the Development of Social Functioning and Academic Achievement: A Longitudinal Study in Chinese Children. *Child Development, 79*, 235–251.

Coombe, C., & Canning, C. (2002). Using self-assessment in the classroom: Rationale and suggested techniques. Retrieved from http://www3.telus.net/linguisticsissues/selfassess2.html

Cummins, R. A., & Gullone, E. (2000). *Why we should not use 5-point Likert scales: The case for subjective quality of life measurement.* National University of Singapore, Proceedings, Second International Conference on Quality of Life in Cities

Daller, H., & Phelan, D. (2006). The C-test and TOEIC® as measures of students' progress in intensive short courses in EFL Retrieved from https://www.swansea.ac.uk/images/artsandhumanities/4)%202006%20Daller%20and%20Phelan%20The%20C-test%20and%20TOEIC.pdf

Dickinson, L. (1987). *Self-instruction in language learning*. London: Cambridge University Press.

Dieten, A. J.-v. (1989). The development of a test of Dutch as a second language: the validity of self-assessments by inexperienced subjects. *Language Testing, 6*, 30-46.

Dörnyei, Z., & Taguchi, T. (2010). Questionnaires in second language research : Construction, administration, and processing. *Routledge, 2*.

Douglas, D. (2000). *Assessing language for specific purposes*. Cambridge: Cambridge University Press

Dudley-Evans, T., & John, M. J. S. (1998). Developments in English for Specific Purposes. A Multi-Disciplinary Approach. *Cambridge University Press*, 301.

Ellis, R. (1997). *Second Language Acquisition*. Oxford.

Estival, D., Farris, C., & Molesworth, B. (2016). *Aviation English: A lingua franca for pilots and air traffic controllers*: Routledge.

ETS. (2007). Recruiting Made More Efficient with TOEIC: The Case of Thai International. Retrieved from https://www.ets.org/Media/Tests/Test_of_English_for_International_Communication/ThaiInternational.pdf

ETS. (2008a). Correlation table TOEIC® listening and reading scores descriptors and European CEFR levels. Retrieved from http://www.toeic.ca/fileadmin/free_resources/ETS_Global_master/TOEIC_L_R_can-do_table.pdf

ETS. (2008b). TOEIC Test Success Story China Southern Airlines. Retrieved from https://www.ets.org/Media/Tests/TOEIC/pdf/9958_TOEIC_China%20Air_Testimonial.pdf

ETS. (2011). TOEIC®Listening and Reading Test Helps Air France Connect with the World. Retrieved from https://www.ets.org/s/toeic/pdf/toeic_air_france_testimonial.pdf

ETS. (2013). Report on test takers worldwide: The TOEIC® listening and reading test. Retrieved from https://www.ets.org/s/toeic/pdf/ww_data_report_unlweb.pdf

ETS. (2015a). The TOEIC. Retrieved from https://www.ets.org/toeic

ETS. (2015b). TOEIC® SCORE VS CEFR.   Retrieved from http://yourenglishtest.com/article/index/art/54

ETS. (2016). *Examinee Handbook Speaking & Writing* Retrieved from https://www.ets.org/Media/Tests/TOEIC/pdf/TOEIC_Speaking_and_Writing_Examinee_Handbook.pdf

Fetterman, D. M., Kaftarian, S. J., & Wandersman, A. (1996). *Empowerment Evaluation: Knowledge and Tools for Self-Assessment and accountability*. USA: Sage.

Gardner, D. (2000). Self-assessment for autonomous language learners. *Links & Letters, 7*, 49-60.

Gardner, D., & Miller, L. (1999). Establishing self-access : From theory to practice. *Cambridge University Press*.

Graddol, D. (2007). English Next *ELT Journal, 61*(1), 81-83.

Holec, H. (1981). Autonomy and foreign language learning.

Hughes, A. (2003). *Testing for Language Teachers* (second ed.). Cambridge Cambridge University Press.

ICAO. (2004a). *Manual on the Implementation of ICAO Language Proficiency Requirements,Doc 9835* (First Edition ed.). Canada.

ICAO. (2004b). *Manual on the Regulation of International Air Transport Doc 9626 Second Edition* (second ed.). Canada.

ICAO. (2008). FLIGHT ATTENDANT TRAINING STANDARD Retrieved from https://www.icao.int/safety/airnavigation/OPS/CabinSafety/Cabin%20Safety%20Library/TCCA%20TP%2012296E%20-%20Flight%20Attendant%20Training%20Standard.pdf

ICAO. (2010). *Manual on the Implementation of ICAO Language Proficiency Requirements, Doc 9835* (Second Edition ed.). Canada.

ICAO. (2014). MANUAL on the English Language Proficiency Assessment (ICAO language proficiency requirements). Retrieved from http://www.caa.md/files/2014_03/616.pdf

IHS Markit. (2017). International Civil Aviation Organization (ICAO). Retrieved from https://www.ihs.com/products/icao-standards.html

Knoch, U. (2016). Language Assessment in the workplace. *Handbook of Second Language Assessment*.

Li, C.-L., & Haggard, S. (2011). *A Study of Fostering Technical College Students' English Proficiency through a TOEIC Training Course*. Paper presented at the 2011 International Conference on ELT Technological Industry.

Little, D. (2005). The Common European Framework and the European Language Portfolio: Involving learners and their judgments in the assessment process. *Language Testing, 22*, 321-336.

Mackay, R., & Mountford, A. (1978). *English for Specific Purposes: A case study approach*. London: Longman.

Martin, E. (2016). AVIATION ENGLISH — WHY IT'S IMPORTANT. Retrieved from https://www.pea.com/blog/posts/aviation-english-why-it-s-important/

Mathews, E. (2004). The Value of Content-based Language Training for the Aviation Industry Retrieved from http://www.aeservices.net/English/CBAELT-Value.pdf

McGuire, W., Lindzey, G., & Aronson, E. (1985). Attitudes and attitude change. *Handbook of social psychology: Special fields and applications, 2*, 233–346.

McNamara, T. (2000). *Language Testing*. Oxford: Oxford University Press.

Moere, A. V., Suzuki, M., Downey, R., & Cheng, J. (2009). Implementing ICAO Language Proficiency Requirements in the Versant Aviation English Test *Australian Review of Applied Linguistics, 32*(3).

Murphy, A. (2010). The flight attendant dilemma: an analysis of communication and sensemaking during in-flight emergencies. *Journal of Applied Communication Research, 29*(1).

Negishi, M. (2011). CEFR-J Kaihatsu no Keii [The Development Process of the CEFR-J]. *ARCLE Review, 5*, 37-52.

New Zealand Qualifications Authority. (2016). self-assessment.   Retrieved from http://www.nzqa.govt.nz/providers-partners/self-assessment/

North, B. (2007). The CEFR Common Reference Levels: Validated reference points and local strategies. Retrieved from http://www.coe.int/T /DG4/.../North-Forum-paper_EN.doc

Oscarson, M. (1997). Self-assessment of foreign and second language proficiency. *Language Testing and Assessment, 7*, 175-187.

Parohinog, D., & Meesri, C. (2015). ICAO-Based Needs Assessment in Thailand's Aviation Industry : A Basis for Designing a Blended Learning Program. *Procedia - Social and Behavioral Sciences., 208*, 263-268.

Pawapatcharaudom, R. (2007). *An Investigation of Thai Students' English Language Problems and their Learning Strategies in the International Program at Mahidol University.* King Mongkut's Intitute of Technolody North Bangkok. Retrieved from http://www.gits.kmutnb.ac.th/ethesis/data/4880181542.pdf.

Permtanjit, G. (2003). *Analysis of Thai Airways International Flight Attendants' Language Difficulties to Provide Practical Suggestions for Language Training* (Master), Mahidol University, Bangkok.

Popper, K. (1959). The Logic of Scientific Discovery. *Taylor &   Francis*.

Powers, D. E., Kim, H. J., & Weng, V. Z. (2008). The redesigned TOEIC (listening and reading) test: Relations to test-taker perceptions of proficiency in English *NJ: ETS*.

Prapphal, K. (2012). English Proficiency of Thai Learners and Directions of English Teaching and Learning in Thailand. Retrieved from http://www.dlf.ac.th/uploads/train/134441498311292.pdf

Přivorová, M. (2016). *ESP – Developing a Course for Aviation English.* (Diploma), CHARLES UNIVERSITY, Faculty of Education.

Race, P. (2001). A Briefing on Self, Peer and Group Assessment. *Kogan Page*, 11.

Ragan, P. H. (1997). Aviation English: An Introduction. *Journal of Aviation/Aerospace Education & Research,, 7*(2). Retrieved from uction. Journal of Aviation/Aerospace Education & Research, 7(2). Retrieved from http://commons.erau.edu/jaaer/vol7/iss2/1

Ross, S. (1998). Self-assessment in second language testing: A meta-analysis and analysis of experiential factors. *Language Testing, 15*, 1-20.

Runnels, J. (2014). An exploratory reliability and content analysis of the CEFR-Japan's A-level can-do statements. *JALT Journal, 36*, 69-89.

Runnels, J. (2016). SELF-ASSESSMENT ACCURACY: CORRELATIONS BETWEEN JAPANESE ENGLISH LEARNERS' SELF-ASSESSMENT ON THE CEFR-JAPAN'S CAN DO STATEMENTS AND SCORES ON THE TOEIC. *Taiwan Journal of TESOL, 13*(1), 105-137.

Saito, Y. (2003). The Use of Self-assessment in Second Language Assessment. Retrieved from https://journals.cdrs.columbia.edu/wp-content/uploads/sites/12/2015/05/3.3-Saito-2003.pdf

Suksiripakonchai, W. (2012). ICAO Language Proficiency Requirements and Training Guidance for Thailand. Retrieved from http://research.dusit.ac.th/new/upload/file/8f91f6d4f760386d0481a6af618905a4.pdf

Sundstroem, A. (2005). Self-assessment of knowledge and abilities: A literature study. *EM, 54*, 1-36. Retrieved from http://www.edusci.umu.se/digitalAssets/60/60577_em541.pdf

Tangniam, T. (2006). *AN ANALYSIS OF ENGLISH LANGUAGE NEEDS FOR THAI AIRWAYS GROUND STAFF* (Master), Kasetsart University, Bangkok Thailand.

Thomson, S. (2012). *THE EFFECTS OF TOEIC EDUCATION IN SOUTH KOREAN UNIVERSITIES.* (Master of Arts), University of Birmingham United Kingdom.

Viriya, C., & Wassanasomsithi, P. (2017). *Developing EFL students' writing ability and perceived writing self-efficacy throgh genre awareness* (Doctoral Degree), Chulalongkorn University, Bangkok, Thailand.

Wallis, R. (1998). The role of the international aviation organisations in enhancing security. *Terrorism and Political Violence, 10*(3).

Wiriyachitra, A. (2001). English Language Teaching and Learning in Thailand in this Decade. Retrieved from http://www.apecknowledgebank.org/resources/downloads/english%20language%20teaching%20and%20learning%20in%20thailand.pdf.

APPENDIX

VITA

Narasak Sirikanjanawong is an M.A. candidate in English as an International Language (EIL) program at Chulalongkorn University, Bangkok, Thailand. He holds his B.Ed. in Secondary Education, majoring in English from the Faculty of Education, Chulalongkorn University. Currently, he is a flight attendant at Thai Airways International. His current research interests include English for Specific Purposes, particularly Aviation English and Language Assessment and Evaluation.