ENGLISH FOR SPECIFIC PURPOSES FOR AVIATION MANAGEMENT TRAINEES: COURSE EVALUATION AND DEVELOPMENT

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ENGLISH FOR SPECIFIC PURPOSES FOR AVIATION MANAGEMENT TRAINEES: COURSE EVALUATION AND DEVELOPMENT

ABSTRACT

A strong aviation management system depends on the efficient communications and coordination skills of aviation management (AVM) personnel. To illustrate this point, the management of air traffic, airport, airline, and cargo requires AVM personnel to demonstrate the ability for professional use of English when communicating to manage the operations of local and international air transport system. Notably, AVM personnel proficiency in English does not only determine the personnel's competency in this language, but it also allows skilled communication in this specialised field. This condition is vital due to the role of English as the lingua franca, which connects the aviation stakeholders from different regions and parts of the globe with diverse languages, slangs, and accents. Although English courses are compulsory courses that are included in most AVM training programmes in Malaysia, whether the courses equip trainees with the proficiency and required language skills remains questionable. Hence, AVM personnel's views and opinions should be investigated to determine the needs for English among the AVM trainees, including the importance of specialised training and English proficiency assessment as a measurement to gauge and enhance trainees' ability to communicate professionally before joining the aviation industry in the future. Comprehensive TSA and PSA were initiated to investigate the gaps between the current English courses and the actual needs of AVM trainees to explore the suitable approach in teaching, materials to be adopted, and assessment criteria to measure the graduates' proficiency before graduating. The research employed an exploratory design due to the importance of qualitative methods. Besides, the study was the first study that involved aviation management personnel. The findings obtained from the analysis were triangulated to develop materials and syllabus for the proposed curriculum, which was validated by stakeholders of the programme. The final stage involved determining the types of oral and written assessments, including the minimum acceptable criteria for AVM trainees based on the findings gathered and aligned with the ICAO English language requirement set for aviation personnel. It was indicated from the findings that the ELT for AVM trainees should adopt the ESP approach, with a specific focus on task-based training and assessment. Similarly, the inclusion of authentic materials is crucial to expose AVM trainees to the language skills required besides developing the trainees' ability to use appropriate aviation language functions and vocabulary. The results of the evaluation and

validation of the proposed ESP curriculum suggested that the curriculum designed for the aviation management trainees should meet the programme learning requirement and be implemented to replace the current GE course.

BAHASA INGGERIS KHUSUS UNTUK PELAJAR PENGURUSAN

PENERBANGAN : PENILAIAN DAN PEMBANGUNAN KURSUS

ABSTRAK

Kecekapan seseorang pekerja dalam bidang pengurusan penerbangan adalah bergantung kepada kefasihan berkomunikasi di dalam bidang pengurusan penerbangan. Bagi pengurusan menara kawalan penerbangan, lapangan terbang, syarikat penerbangan dan kargo memerlukan seseorang itu mempunyai kefasihan tahap yang tinggi dalam bahasa Inggeris dan mempunyai kemampuan untuk berkomunikasi, kordinasi untuk melopori bidang industri penerbangan. Ini adalah penting kerana kepelbagaian bahasa yang ditutur oleh seseorang itu dari pelbagai pelusok dunia dan bahasa inggeris adalah bahasa penghataraan yang rasmi dan di terima di dunia antarabangsa untuk berinteraksi. Justeru itu kefasihan bahasa inggeris tidak dapat dinafikan untuk menjadi bahasa yang penting untuk mengendalikan pengurusan penerbangan. Untuk memahami pengurusan penerbangan pelatih komunikasi bahasa inggeris perlu menghasilkan silibus yang mengkhususkan kemahiran supaya graduan dapat berfungsi secara effisien di tempat kerja dengan ini satu TSA dan PSA komprehensif telah diwujudkan. Analisis(TSA & PSA)in berfokuskan kepada untuk mendapat hasil penyiasatan keperluan berkomunikasi untuk pelatih pengurusan penerbangan supaya mereka mempunyai kemampuan dan daya saing yang tinggi di pelantar tempatan dan antarabangsa dan juga di jabatan tertentu. Kajian ini adalah untuk mewujudkan satu kursus ESP untuk pelatih program pengurusan penerbangan. Hasil gabungan kajian ini juga telah dihalusi untuk mewujudkan bahan rujukan dan syillibus untuk kurikulum bersepadu dan disemak oleh pengelola program pengurusan penerbangan. Tahap akhir melibatkan penyiasatan penilaian ujian komunikasi lisan dan ujian bertulis berdasarkan kepada hasil kajian dan berpandukan kepada syarat ICAO English Language Proficiency (ICAO ELP) yang telah ditetapkan kepada untuk pekerja pengurusan penerbangan. Hasil kajian telah menunjukkan penuntut program pengurusan penerbangan memerlukan latihan komunikasi yang agak kritikal dan berbeza daripada kriteria bahasa yang diperlukan oleh juruterbang, pegawai kawalan udara dan jurutera pesawat. Maka, perlunya penuntut menghalusi kefasihan bebahasa Ingeris dalam pengurusan akitiviti penerbangan dan aktiviti lain yang terlibat secara tidak langsung.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

AC/ac : Aircraft

AE : Aviation English

ATC : Air Traffic Control

AVM : Aviation Management

BE : Business English

CAAM : Civil Aviation Authority Malaysia

CEFR : Common European Framework of References

EAM : English for Aviation Management

ELT : English Language Teaching

ELPT : English Language Proficiency Test

ESP : English for Specific Purposes

GE : General English

IATA : International Air Transport Association

ICAO : International Civil Aviation Organization

MRO : Maintenance, Repair and Overhaul

MQA : Malaysian Qualifications Agency

NA : Needs Analysis

PSA : Present Situation Analysis

PBL : Problem Based Learning

PLO : Programme Learning Outcome

RTF : Radio Telephony Frequency

SME : Subject Matter Expert

TBLT : Task Based Language Teaching

TSA : Target Situation Analysis

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

The idea of flying was originally illustrated by the famous artist Leonardo da Vinci and realised by the Wright Brothers in 1903 when they first tested the aeroplane. Following this situation, air transport has become an important means of transportation, while the aviation industry is evolving rapidly. The pace at which the global air transport industry has developed and invented technology has resulted in the increased demand for air flights, stimulating highly rapid growth across all aviation services and persistent demand. When the world is facing a pandemic, air transportation has been the only transportation that is actively operating to transfer vaccines and goods. Besides, the innovation in aviation, which centres on the development of larger aircraft with higher speeds, has increased the hourly productivity of aircraft. This situation allows more sophisticated aircraft designs and improvised cabins, and assists in the evolution of air freight services, which creates the need for strategic management of air traffic control and an increased number of airports around the globe. This situation has led to an upsurge of low-cost and high-cost operators.

In the first flight, gliders and hot air balloons were used as means of transporting a small group of passengers. However, with the evolvement in technology, air transport is currently able to carry hundreds of passengers depending on its size and capacity. From a wooden structure to a monocoque aircraft body structure, the evolution of the aircraft has resulted in the rapid growth of the global aviation industry. According to Jean-Paul Rodrigue (2013), air transport is an important means of business transportation, particularly when demand is present for the operation of more aircraft manufacturers and airlines. Today, the aviation industry is segregated into several divisions, including airline, airport, air traffic, aerospace, and maintenance repair and overhaul (MRO). The

functions and business of each division are governed by the International Civil Aviation Organisation (ICAO), which is based in Montreal since 1947. In this case, ICAO is in charge of managing the entire aviation industry by issuing regulations, policies, and procedures, and by promoting a safe and efficient development of civil aviation. In Malaysia, the Civil Aviation Authority Malaysia (CAAM) governs the aviation industry and is in charge of managing overall aviation activities.

The previously described developments have resulted in the evolution of other aviation sectors, which are also contributed by the efficient management of the aviation industry. Besides the aviation regulatory bodies, the aviation industry has been managed by individuals known as Aviation Management (AVM) personnel, who are the employees hired under an aviation organisation to manage all divisions, including operations. Working at airlines, airports, or other businesses in the aviation or aerospace industry, the AVM personnel are commonly individuals with qualifications and experience in management and business administration, including knowledge of air transportation principles. Furthermore, the AVM personnel ensure that the operations, planning, and management of the respective organisations within local and international contexts are according to the local and international rules and regulations. Notably, effective coordination requires AVM personnel to communicate effectively in English, given that it is the lingua franca of the aviation industry. Despite the crucial contribution of Russia and France to the aviation and aerospace industry, the use of English is more significant as it is the global language and could be understood by manufacturers, aviators, Air Traffic Controllers (ATC), and passengers of all nationalities. In addition, provided that Aircraft (ac) manuals, standards operating procedures, and regulations are the issues in English, most Aviation management personnel use this language to communicate with the aviation community, such as pilots, ATCs, engineers, manufacturers, and regulators,

including clients and people they serve. Therefore, English plays a highly important role in the aviation industry.

1.2 Aviation Management in Malaysia

The aviation industry in Malaysia started when Imperial Airways collaborated with the Straits Steamship of Singapore to operate air services between Penang and Singapore. Malayan Airways Limited (MAL) is the first airline company in Malaysia and its first commercial flight following the operation of Malaya's national airline, which started in April 1947. The airline was renamed Malaysia Airlines Limited (MAL) in 1963 after the formation of Malaysia, followed by another rebranding to Malaysia–Singapore Airlines (MSA) in 1965 due to the separation of Singapore from Malaysia. Officially formed in 1973, Malaysia Airlines (MAS) has been serving as Malaysia's national carrier until today. Although MAS was initially a regional carrier, it is rapidly expanding to include services worldwide. Meanwhile, MASKARGO is a subsidiary of MAS and the first logistics transportation company in Malaysia.

Today, MAS is known as Malaysia Airlines Berhad (MAB) after a major restructuring of the airline in 2015. To date, approximately five airlines are actively operating in Malaysia for local and foreign destinations. The operations of these airlines are monitored by CAAM, which will ensure that the airliners adhere to the regulations issued by ICAO and CAAM and the International Air Transport Association (IATA).

Besides the establishment of new airlines, airports are constructed in the country to support the aviation industry in Malaysia. The number of airports, several international airports, domestic airports, and low-cost carrier (LCC) airports have been increasing over the years in Malaysia. To date, approximately 21 airports are present around Malaysia, with most of them managed by Malaysia Airport Holdings Berhad (MAHB). This situation could be achieved due to the efficient aviation management system in Malaysia.

Besides airlines and airports, Malaysia has become an aviation hub in the region as the manufacturers of aircraft and its components, namely Boeing, AIRBUS, Pratt & Whitney, and Honeywell are attracted to the country economic stability and stable currency exchange. Table 1.1 below presents the types of aviation organisations in Malaysia.

Table 1.1: List of Aviation Organisations in Malaysia

Airport	Airline	Logistics	Aerospace
• Malaysia Airports Berhad (MAHB) • Senai International Airport – owned by MMC Corporation Berhad	• Malaysia Airlines Berhad • AirAsia • Firefly • Malindo Air • Raya Air • Singapore Airlines • Tiger Airways	• Pos Aviation • MAS KARGO • DHL • FEDEX	• Sepang Aircraft Engineering (SAE) • ADTEC SDN BHD • AERO SYSTEM Aviation • SPIRIT AeroSystem • DAviation • Aerotechnic • WestStar

Table 1.1 illustrates the types of aviation companies and their examples in Malaysia. Besides the types listed, an airline catering company, several aircraft cabin cleaning, aircraft pest control companies, flying schools, and aviation engineering schools are present in Malaysia. The list above comprises several companies that remain active and operating despite the current pandemic season. The aviation companies include Malaysian-owned and foreign-owned companies.

The demand for more aviation companies is expected to increase during the end of the pandemic, given that Malaysia is known for producing skilled aircraft manpower at an affordable salary demand scale. This situation draws the attention of foreign investors. According to IATA (2018), "*Asia Pacific is the largest market for passenger flows to and from Malaysia and stimulated by good air transport connections, this indirectly brings in more foreign direct investments*". Most investors choose Malaysia as a hub for trade due to the infrastructure and competitive pricing. This condition reflects the precedent of an

excellent aviation management system in this country as it opens more doors of opportunities to aviation investors and creates manpower demand from the locals.

As previously stated, the development of the aviation landscape in Malaysia indicates the result of effective aviation management skills. The AVM personnel are expected to have the credibility to effectively manage the aviation organisations and their resources to attract travellers and investors. This condition is in line with the aerospace industry's vision of promoting Malaysia as an aviation hub amongst the ASEAN countries and enticing more stakeholders to expand the Malaysian aviation landscape(Malaysian Aerospace Industry Blueprint,2030). To ensure sustainability and continuous growth in the Malaysian aviation industry, the future AVM personnel should be competent and capable besides possessing proficiency in English to communicate with the local and international stakeholders.

1.3 Aviation Management Personnel

Even though the aviation profession or programme appears as new and recently developed, aviation management has been initiated since the emergence of the air transportation business. A wide range of literature, which was published regarding aviation management, covered education and skills related studies. The literature also highlighted the importance of effective team, interpersonal, communication, decision-making skills, and other operational knowledge and capabilities required for management and operations of aviation companies (Quilty, 2004). Furthermore, AVM personnel are required to possess these skills to effectively manage the aviation organisation and ensure continuous productivity.

A study conducted on safety behaviour among pilots has proven that the aviation managers set the requirement in the flight operation manual, which includes the regulations and procedures in handling the aircraft (Chen & Chen, 2014; Mott et al.,

2019). The aviation management department personnel such as the CEO and managers are the parties who set the safety culture of the organisation. Meanwhile, the AVM personnel are often concerned with the on-time performance (OTP) trend of the organisations, which involves the pilot and the rest of the ac turnover crew. This aspect is crucial as it affects the profit growth of the organisation. To achieve the organisation performance target, the AVM personnel should coordinate and connect all departments of the organisation, its operation, and business units to ensure continuous productivity and improvement in services and products.

Various statements have been made about the role of AVM personnel. However, it is vital to identify the specific roles of the AVM personnel to avoid any misunderstanding. The AVM personnel are not usually designated to work in a specific department, such as ticketing staff or airline check-in staff. As the term suggests, aviation management solely focuses on managing aviation entities. The following figure describes the five main entities in the aviation industry.
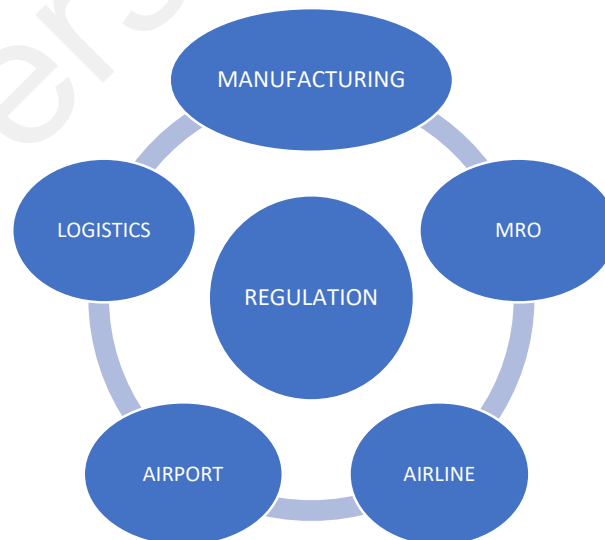
Figure 1.1: Aviation Entities

The entities shown in the figure above are the backbone of the aviation industry, which is controlled by the international and local aviation regulatory body. The knowledge and

skills on managing these entities are taught in the core courses of most AVM training programmes. The AVM programme offered in a local private university, specifically Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT), is tailored to enable trainees to join any of the entities upon the study completion. This condition suggests that AVM personnel work in organisations under these entities. Following are the roles of AVM personnel based on the departments under the entities.

Human Resource – manage manpower in the organisation, recruit new employees, conduct training, and manage employees' welfare such as health, salary, and other benefits.

Planner – plan operations including flight planning, audit preparation, major and minor overhaul services of ac or airport facilities, employees shift, and other resources based on requisition.

Engineering – advise engineers on the planning of maintenance tasks based on the scheduled A, B, C, and D checks, keeping track of engineers' license expiry and renewal, scheduling engineers for flight duty travel, or rescuing flight mission, managing work, overtime claims of technicians and engineers, and ordering parts that are required for engineers to perform maintenance or repair on the ac.

Food and Beverages – coordinate with airlines on food and beverages order for flights, order supply of food and drinks, adhere to Halal compliance on food preparation, and survey to investigate passenger's satisfaction on catering services.

Quality Assurance – conduct an audit and prepare audit reports, prepare Standard Operating Procedures (S.O.P) for operations and safety procedures, prepare company operation manual, and liaise with authorities on rules and regulations compliance matters.

Legal and Ethics – prepare agreements, advise departments on agreements, and negotiate with clients on the agreement and contract terms.

Finance and Accounting – manage the finances of the company, salary and wages of employees, process payment on purchasing of aircraft parts and other materials, and prepare the reports of the income and losses.

Customer Service – manage customers' complaints and enquiries, provide information, and assist in booking, cancellation of flights, baggage claims, and other services.

Dispatcher – generate flight plans, load sheets, weather reports, fuel requests, and others.

Logistics – coordinate movement of goods between air transport company and clients, prepare the necessary documentation to comply with regulation and coordinate with road and sea transportations for movement of goods that are delivered through aircraft.

Media and Marketing – promote the company services through various means, prepare a strategy to attract clients and customers, release announcements concerning the organisation, and plan for a press conference and agreement signing.

Traditionally, AVM personnel are appointed based on their skills and experience in the aviation departments or organisations (Earnhardt et al., 2014; Sadasivan &

Gramopadhye, 2009). Aviation management is regarded as an administrative task that does not involve any qualifications. The personnel performing the task are appointed based on their knowledge of aviation and business management, including the number of years of serving the company. The AVM personnel may have had other working backgrounds, such as engineers, pilots, cabin crew, hotel managers or accountants, before achieving the position of AVM personnel. Some of this personnel are recruited as AVM personnel due to their vast experience and seniority in their field and partly their interest. A similar case applies to fresh graduates of an AVM programme or equivalent programme. Hence, all AVM personnel are graduates of the AVM training programme.

1.4 Background of the Study

The institution where the study was performed was formerly known as the Malaysian Institute of Aviation Technology (MIAT), an institution that was established based on the collaboration between Northrop Rice institute from the USA with Majlis Amanah Rakyat (MARA), a Malaysian government agency. In the year 2003, MIAT was absorbed to be part of UniKL Institution. The university offers nine different specialisation programmes, with aviation being one of the specialisation programmes.

UniKL MIAT is the pioneer aircraft maintenance training institution in Malaysia and the first Maintenance Training Organisation (MTO) to be recognised by CAAM. It was then recognised by Frost and Sullivan as the award winner for the category of Aviation Human Resource Development for Asia Pacific in 2008. The institution is equipped with excellent aviation training infrastructures and facilities, including live workshops and hangars. Besides, the institution teaching personnel mostly originate from the aviation industry and are highly trained and multi-skilled. This institution consists of two branches: the main campus in Sepang and the new campus in Subang, which is a district in Selangor. Both the institutions are strategically located in areas where major aviation operations are performed.

The institution offers several programmes (refer to Appendix 1), with the AVM programme being recognised as Bachelor of Aviation Management (BAVM). Offered since 2010, the programme was initiated by former AVM personnel who gained vast experience in the aviation industry and joined the university upon retirement. Besides supporting the demand for a forecasted workforce to manage the aviation departments, the programme was developed to polish young talent that will employ innovation and creativity to manage the aviation industry. The programme learning outcomes (PLO) are devised according to the domains suggested by the Malaysian Quality Framework (MQF).

Table 1.2 : Programme Learning Outcome

PLO1	Acquire fundamental knowledge of aviation management.
PLO 2	Use a spreadsheet or statistical software to collect, manage and analyse data
PLO 3	Conduct business ethically while being responsible to the well-being of society and environment
PLO 4	Function effectively and responsibly as an individual, and as a member or a leader in diverse teams.
PLO 5	Demonstrate moral values and professionalism among peers, industry and community
PLO 6	Identify, describe and analyse and solve problem in aviation industry.
PLO 7	Select and process various information from sources and capable of learning independently
PLO 8	Manage aviation activities at local and international levels.

As shown in table 1.2, there are eight outcomes expected of trainees upon completion of the BAVM programme. These outcomes are periodically revised to align with the industries needs and expectations. Several batches of students have graduated from the programme and joined the aviation industry. Moreover, these students are registered as alumni members of the institution and are often contacted to present talks or reviews on the management programmes.

1.5 Research Background

Upon the initiation of aviation operations, the aviation management position was regarded as an administrative task that does not require any specific qualification or training. The AVM personnel were appointed based on their skills and experience of working in aviation departments or organisations (Earnhardt et al., 2014; Sadasivan & Gramopadhye, 2009). The parties who performed the job were appointed based on their knowledge of aviation and business management, including the number of years serving the company.

The first study on education and leaders in the aviation industry was performed by Carkeet in 1980 to investigate the minimum education and skills required for the programme to equip trainees for an aviation leadership career, which marked the beginning of the development of the aviation management career (Watkins et al., 2016; Newcomer et al., 2014; Radigan, 2011). Given that the study made a significant impact with the outsourcing of functions, more people embarked on aviation research while the AVM programme was offered in training schools and private colleges. Newcomer et al.'s study (2014) found that despite the opinion among the employers of aviation organisation that education level is not crucial in securing aviation management position, they preferred fresh recruits or job applicants to have academic qualifications. This situation led to the demand for AVM programmes to be offered in higher learning institutions.

Today, several institutions and training organisations are offering AVM programmes as academic programmes or short training courses. The course content for most of the institutions or training organisations offering the aviation management programme is similar, with minimal differences in the duration, entry requirements, and awarded qualifications. The survey of the AVM programmes offered around the world demonstrated that most of the training institutions and organisations providing this programme conduct the training in English, given that it is the lingua franca in aviation.

Therefore, English proficiency is essential for enrolling on the course. In Malaysia, the programme is also conducted in English to ensure that the training could be offered to local and foreign trainees. Besides, the Malaysian Quality Agency (MQA) has set the requirements for English course to be offered as a compulsory course for all education programmes, while the AVM programme is inclusive. However, the outcomes of the English are subjected to the institution programme learning outcomes (PLO) and visions determined by the programme administrators.

In this study, reference was made to the aviation management programme offered by the UniKL MIAT, given that it is the most recognised aviation management academic programme, which is also a full-fledged degree programme. Besides, the selection of this institution was made as this programme is one of few aviation academic programmes in Malaysia that are accredited by the Chartered Institute of Logistics and Transportation (CILT) Malaysia, a professional society representing logistics and transportation industries in the nation. The CILT Malaysia's accredited academic programme is a stamp quality provided to the academic programmes in the field of logistics, transport, and supply chain. The academic programmes that receive the accreditation should pass a stringent recognition assessment to ensure that the programmes produce industry-relevant, future-proof graduates who are competent in the field and the workplace.

The aviation management programme offered in UniKL MIAT comprises 36 core subjects, a research project, and six-month practical training in any relevant departments of the aviation industry. The complete list of subjects offered is presented in the Appendix. The following figure illustrates some of the main components of the aviation management programme.
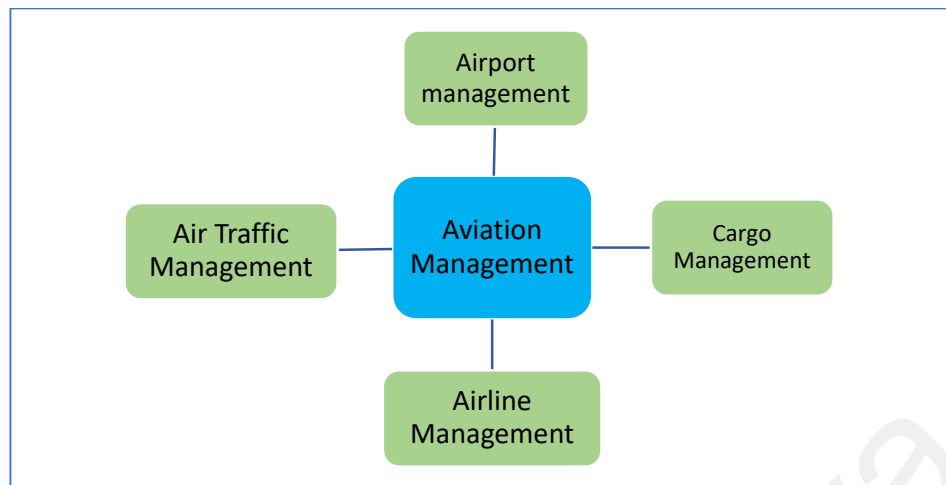
Figure 1.2 Aviation Management Divisions

In the aviation industry, several managerial departments and positions are created to keep air travel safe, efficient, and reliable. According to Loffi et al. (2013), this situation is attributed to the complex management of the aviation industry as it comprises various entities. The AVM programme is unique as the trainees are offered knowledge about managing different organisations. Hence, as shown in Figure 1.2, the AVM programme includes crucial subjects that involve airline, airport, air traffic, cargo logistics, and aerospace business management.

To ensure that trainees are equipped with the required knowledge and skills, Jong and Perdomo (2016) argued that the trainees should realise the importance of English proficiency in their job scope. Despite Bahasa Melayu as the official language in Malaysia, the aviation industry is a global industry that employs English as the common language, which is necessary to ensure safe and successful communication. Similarly, AVM trainees should be equipped with the proficiency and competency required to enable them to use their language skills for the management of the aviation entities.

1.6 Problem Statement

The AVM trainees are required to fulfil all learning and assessment requirements of the programme. As previously mentioned, English courses are compulsory, with the

General English (GE) courses offered to the AVM trainees. Besides employing a centralised syllabus, the GE courses are compulsory for all degree programme trainees studying in the university. For the aviation maintenance degree programme, however, the English curriculum is English for Specific Purpose (ESP) oriented with Aviation English (AE) as a focus of the syllabus. In the early stage of proposing the programme and for the approval process, the AVM programme administrators attempt to include the GE courses in the AVM programme. However, no revamp or revision has been made for the English requirement since 2009. Nevertheless, all AVM courses offered in the programme have undergone several phases of revisions on the syllabus and content based on the needs analysis and input from external stakeholders.

C. G. Drury, J. M. and C. V. M. (2005) stated that the ability of aviation managers to manage spoken and written communication is vital. These skills could be developed through proper coaching. The training and controlled practice is proposed based on the analysis regarding the expectation of the prospective employers and industry stakeholders. No trace of analysis is performed to obtain the input on the English language needs among AVM trainees or to revise the syllabus or content to date. Although the discussion with subject matter experts (SME) and other lecturers suggested that trainees could follow their aviation management lessons, their low proficiency in English may interfere with the understanding due to the complexity of aviation management. In addition, some trainees may understand the learned knowledge and theories; however, upon assessment, they are unable to explain the information learned in English. This situation has been expected as the trainees are mostly high school leavers or foundation programme students who have no prior knowledge of aviation management.

Many institutions worldwide offer the aviation management programme on a short course basis as a course for four to six weeks or three years of the educational programme. An analysis of the AVM programme structure by other institutions shows that these

institutions do not offer a specific English course to prepare the trainees for gaining the language skills needed to manage the divisions shown in Figure 1.2. Nevertheless, these institutions have set the IELTS or TOEFL requirements for entry into the university. However, no additional English subjects are offered upon the assumption that trainees are proficient in English and they can carry the aviation management subjects. For enrolment into the UniKL MIAT AVM programme, foreign applicants should enrol in the Test of English as a foreign language (TOEFL), Test of English for International Communication (TOEIC), and International English Language Testing System (IELTS), while the local applicants who wish to enrol into the programme should sit for MUET and achieve a minimum of Band 2. The graduates from the diploma in ac maintenance programme trainees do not need to fulfil any English entry requirement prior to enrolling into the AVM programme.

The aircraft maintenance engineering programmes offered in UniKL MIAT include Aviation English (AE) courses. The AE course content is divided into three levels, namely foundation, intermediate and advanced. These levels educate trainees about aviation jargon, terminologies, reading, listening to information on aviation operations related topics, and introduce ac engineering and avionics trainees to the basics of writing aviation documents. These AE courses are designed based on the input received from stakeholders including aircraft engineers, alumni, and technical courses lecturers.

Aside from the fact that the content of the AE may not seem appropriate for the AVM trainees, a large gap is also present between the curriculum and content design of the GE and the AE courses offered in UniKL MIAT. The GE courses content does not complement the content of the AVM courses nor expose the trainees to the basic language skills required to support the learning process. Besides, it does not enhance their ability to be professional while performing workplace communication. Therefore, this study is

essential to gather the opinion of AVM personnel and alumni on the current GE course and the suitability of the course for trainees' future job scope.

The English language plays an important role in international communication. Most non-native speakers rely on it as the key language to communicate with other non-native speakers, including airline staff who manage travellers of various nationalities every day (Lee, 2015). During the rise of the aviation industry in Malaysia, many foreign expatriates were hired to work with the local airlines, manufacturing, and composite companies. Following that, these aviation organisations gradually sent employees to countries including the United Kingdom, United States, Germany, and Russia to obtain training and license in aircraft maintenance or take up courses on aviation management. The personnel who were sent abroad were appointed to conduct in-house training for the other employees. This process also involved the training institution (MIAT). Notably, many members of the aviation organisation obtained benefits throughout the process of this practice.

Lecturers were stationed in the United Kingdom and Germany for technical training. Upon their return, they conducted training for other teaching staff and external parties. Although the course content was delivered in English, the use of Bahasa Melayu (BM) among the industry players and the training institution could not be eliminated, given that it is the mother tongue of the Malay community that makes up the majority of the workforce in the aviation industry. The tendency to code-switch or translate between English and Bahasa Melayu is present as Malaysians are non-native speakers of English. Subsequently, English proficiency is not emphasised in the Malaysian aviation context. Cultural differences create barriers to communication, which may result in losses and unwanted incidents (Hazrati, 2015; Campbell-Laird, 2004) . Therefore, English remains the preferred language for official communication in the industry as the aviation business involves local and foreign stakeholders.

Provided that the institution is preparing trainees to join the aviation workforce as AVM personnel, the AVM programme administrators should also explore the importance of equipping trainees with good proficiency and communication skills. Similarly, the use of proper English must be emphasised to trainees as they need to use it for official communication purposes, such as meetings, discussions, writing, and other occasions in the aviation industry. Ashiquin et al. (2018) stated that industries are faced with insufficiency of the English language tests, which could be used as a standard to gauge graduates' oral competencies and their readiness to compete with the target language usage (TLU) in the workplace. However, code-switching may not be appropriate when trainees need to deal with foreigners and foreign personnel. A course prepared based on the communication needs of the aviation management personnel is essential to prepare trainees to communicate efficiently in the real workplace.

According to the literature review conducted in this study, no similar studies have been conducted on this project. The previous studies on aviation management focused on the importance of education for aviation managers, the development of an aviation management programme, and case meetings for teaching English for academic purposes in tertiary aeronautical engineering programmes (Tatzl, 2015). Hence, it is crucial to determine the proficiency criteria required by prospective employers. Generally, the selection of candidates begins with the screening of candidate resumes, application letters, and references. This document allows the hiring personnel or employer to gauge the candidates or fresh recruits' writing skills, while the oral interview is used to assess candidates ability to express themselves (Pulakos, 2005).

In the aviation industry, most organisations assess fresh recruits on a probationary basis. At this point, fresh recruits are required to produce written work and conduct verbal activities that are later assessed by their superiors. However, if the teaching materials and assessments are general and not related to real tasks expected for trainees to perform,

uncertainty is present on whether trainees are prepared for the recruitment process. Although the ICAO English Language Proficiency (ELP) test is a known English proficiency measure, whether the ELP test rubrics and criteria are used for gauging the English language skill of AVM trainees is yet to be discovered. Additionally, Mott et al.'s (2019) study on competency-based education framework for aviation management programme emphasised that many of the competencies related to aviation management disciplines such as airline operations, revenue management, and airport management are not regulated by the government. This condition enables a broader curriculum design based on the dynamic framework in industry and practice. As a result, identifying the language competencies required of AVM trainees is crucial.

Based on the highlighted issues, the current study aims to investigate trainees' communication needs and gaps in the current English subjects offered in the programme. The central thesis of this dissertation is to design an ESP course for aviation management trainees.

1.7 Research Objectives

Industry professionals or stakeholders hold high regard for AVM programmes and their role in career progression in the aviation field (Earnhardt et al., 2014; Fullingim, 2011). The programme aims to develop AVM professionals that possess the knowledge and skills that are significant to the industry. Chan (2014) highlighted that a needs analysis is performed to determine the factors leading to the target participants' specific manner of communicating, the types of English used in the workplace, and the importance of English for communication at the workplace. This analysis will often suggest the need to design an ESP course as the focus is to enhance the trainee's proficiency, particularly for the job or based on the task that needs to be performed. However, it is vital to investigate if English proficiency is indeed important and the purposes of it, which include basic

communication and task performance among others. Accordingly, the first objective of this study is to investigate the communicative needs of learners in an AVM training programme by examining the job scope of actual AVM personnel, the importance of English to the AVM personnel, and the requirements for oral and written communication skills of the AVM personnel.

Building a syllabus according to the main goals of the career and addressing the specific goals of teaching English lead to an issue among language teachers (Jong & Perdomo, 2016). In designing an English course, the focus should be on how the language would be used by trainees for communication at the workplace. However, English language (EL) teachers are often faced with the issue of inadequate understanding among the trainees' field of specialisation. Therefore, the GE curriculum is frequently used as it covers the typical English syllabus and does not need to be customised for trainees with different learning needs. With the revolving education system and Malaysia's higher education system gearing towards Industry 4.0 and Education 4.0, the impact of 4.0 on workforce recruitment is expected to be relatively significant. The requirements of the talent will be based on the current needs of the industry and technology (Maria, Shahbodin, & Pee, 2018; Baygin, Mehmet; Karakose Mehmet; Akin, 2016). Hence, the EL teachers have to adjust the way of training the AVM trainees to prepare the right talent for the industry in the future. Apart from that, EL teachers and course designers should accept that in the world of corporate education, talent does not solely refer to the capability to demonstrate perfect English proficiency, but it also refers to knowledge, skills, and abilities (KSA).

Knowledge refers to understanding the information that is acquired of the subject and its concept and theories. Trainees must understand what is studied, which is not limited to knowledge for examination purposes. On the other hand, skills denote the capabilities of the trainees or graduates, who should be able to demonstrate their technical or hands-

on and soft skills. Following that, abilities are the behaviours demonstrated by the trainees or graduates, who should be able to prove to the prospective employer that he or she is capable to perform the job-related tasks. The AVM trainees need to be equipped with the knowledge, skills, and abilities (KSAs), and to function efficiently in their jobs. In the 21st century, KSAs must be balanced with the language proficiency required in the profession.
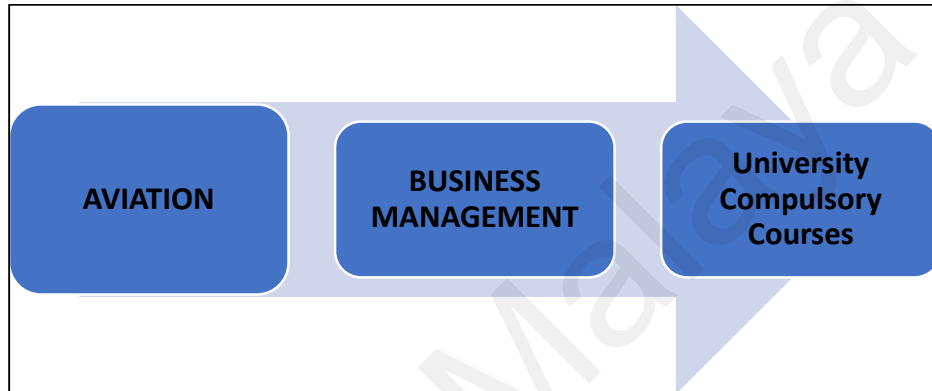
Figure 1.3: Components of AVM Programme

The components of the AVM programme shown in the figure above are presented as a continuum with three elements, aviation, management, and university compulsory courses. The aviation and management courses are taught by subject matter experts (SME) or lecturers who have gained experience of working in the aviation industry. The aviation component covers the knowledge of airline, airport, ac operations, and logistics, while the management component covers business management, human resources, finance, supply chain, and contract law among others. Although the law courses are not taught in isolation, it is related to aviation management.

The university compulsory courses include the GE course, Mandarin, entrepreneurship, and several other courses. The inclusion of the Mandarin course is to enhance the marketability of trainees, given that Mandarin is widely used for business purpose. However, the programme administrators and language teachers are responsible for deciding the content of the course. Most importantly, the English course objectives

should be aligned with the programme objectives to develop and enhance trainees' English language skills to communicate professionally when discussing aviation and management topics in the aviation industry.

Adapting a textbook that contains topics related to the course content may seem convenient, although it is often not the right choice. As stated by Ahmed (2017), the content of a good textbook must facilitate the scaffolding process to ensure that certain desirable outcomes are achieved. The selection of a textbook depends on the course outcome. However, given that there is no empirical research conducted on the English language skills required by aviation management trainees in Malaysia or revision performed on the AVM English courses, the use of an in-house developed textbook for teaching the AVM trainees is questionable. This condition suggests that the content of the current textbook should be evaluated by the AVM personnel and former trainees to determine if the content of the textbook is aligned with the English language needs that have been investigated in the first objective.

The second objective of this study is to make a critical comparison between the present course offered to AVM trainees in the programme and the actual communicative needs of AVM personnel. In determining these gaps, this study examined the course syllabus and assessments, the authentic materials frequently used by AVM personnel to analyse the language functions, jargon, and the standard terminologies in the oral and written communication of AVM personnel.

The term AE existed long before the establishment of the ELP testing requirement. However, AE is a wide-angled ESP, and the content is rather generic for all aviation personnel regardless of their job scope. However, realising the importance of communication and proficiency, most training providers developed narrow-angled ESP such as English for Pilots, English for ATC and English for cabin crew. The reason for selecting narrow-angled ESP over wide-angled ESP is to ensure that the course objectives

and expected outcomes are specific to the learners' needs. Nevertheless, the study will explore the concept of AE in detail and discuss the relevance of the narrow-angled ESP courses for the respective group.

In aviation, communication is among the main reasons for an organisation to suffer from losses besides the factor of sub-optimisation in management and decision-making, lack of teamwork, and poor employee motivation (Appelbaum and Fewster, 2002). In aviation, communication is one of the 12 elements of the Dirty Dozen concept, which was developed by Gordon Dupont in 1993. The list of the 12 dirty dozen concepts is as shown below.

Table 1.2: The Dirty Dozen

1. Lack of communication	2. Distraction	3. Lack of resources	4. Stress
5. Complacency	6. Lack of teamwork	7. Pressure	8. Lack of awareness
9. Lack of knowledge	10. Fatigue	11. Lack of assertiveness	12. Norms

Source: Gordon Dupont (1993), The Dirty Dozen, https://skybrary.aero

The 12 factors listed in Table 1.2 were reported to influence aviation personnel into committing mistakes when performing their job. Provided that the aviation industry is a fast-growing industry, its long working hours often result in mistakes or miscommunication and unwanted catastrophe or loss of assets. Even though the dirty dozen list was initially developed for aircraft maintenance personnel, it was later used to create awareness for other aviation personnel. Several aspects of assessing trainees' communication ability are present, while English is regarded as the lingua franca in aviation management.

The inability to comprehend basic interview questions by the prospective employer and to explain the concepts and theories learned in English reflects the trainees' poor

proficiency in English as a tool of communication. Besides that, investigation of the best data obtained through the needs analysis and document analysis does present some leads for the design of a proficiency course to allow trainees to meet the workplace requirement. The third objective of this study is to design an ESP course for AVM trainees. In designing the ESP course, the third objective should also seek to determine the minimal language ability expected by employers for the acceptance of potential AVM trainees into the workplace, the criteria employers adopt when evaluating the quality of oral and written output and the minimum level expected for acceptance of completed oral and written tasks in the workplace. In order for the study to determine the above criteria, the current study must first investigate the criteria used to gauge the quality of trainees' oral and written output. If no findings were recorded on the criteria used to assess the trainees or job applicants, the minimum level expected for acceptance of completed oral and written tasks in the workplace would be determined.

1.8 Research Questions

This study aims to investigate the communicative needs of the AVM trainees and gaps in the current English subjects offered by the aviation programme at UniKL MIAT. Given that the central focus of this dissertation is the design of an ESP course for aviation management trainees, the research questions are as follows:

1. What are the English communicative needs of learners in an Aviation
   Management (AVM) programme?

2. What are the gaps present between the existing English curriculum and their future
   workplace requirement?

3. How should a revised AVM English curriculum be designed to meet workplace
   requirements?

1.9 Scope of the Study

The scope of this study is to investigate the English language needs of AVM personnel working in Malaysia. It focuses on English proficiency requirements for the AVM trainees to work in aviation management positions. The collected findings determined the need to propose an ESP-based curriculum, which will comprise the recommended content and desired assessment criteria from the AVM respondents. The ESP-driven syllabus content and assessment will be used for teaching AVM trainees in the institution. Although several other institutions offer the aviation management programme in Malaysia at the diploma and degree level, as shown in Section 1.5, the programme is one of the most recognised AVM programmes. Furthermore, the curriculum of English for AVM has yet to be fully developed or implemented by even a single institute offering the AVM programme. Therefore the scope of the study focuses on UniKL MIAT AVM English courses for gap analysis of the present syllabus in the textbook content with the desired syllabus and sample course materials and suggestions for improvement

1.10 Limitations of the Study

As stated in 1.3, Malaysia is the regional hub for aviation operations. Aviation-related activities are performed in several areas in Malaysia, with the Sepang district being the most important and busiest area. Therefore, the study is limited to aviation organisations in the vicinity of Sepang. This area comprises various types of aviation entities, such as the main international airport (KLIA), the low-cost carrier terminal (KLIA2), local and international airlines offices, airport management office, MRO companies, logistics and cargo companies, and a few other aviation organisations.

The second limitation of the study is the limited access to data. This limitation is due to the reason that the aviation industry is highly regulated as safety is concerned. The AVM personnel and gatekeeper agreed to assist in the study because the interview will

not discuss companies policies and practices. Besides that, any form of observation recording was also not permitted. Respondents allowed audio recordings of their interview to be done after reading the interview schedule and the terms on the consent form. However, when the pandemic crisis began at the end of December 2019, stricter restrictions were imposed by the companies on visiting policies. Some of the study respondents were retrenched or demoted, resulting in even a smaller number of AVM personnel willing to share their views. Therefore, in the evaluation stage of the survey, many personnel but those involved have experience in supervising and recruiting fresh graduates.

1.11 Significance of Study

This study seeks to provide some useful input on the importance of needs analysis. The NA is frequently overlooked by language practitioners due to the assumption that the language needs among trainees or learners are generally the same. However, this presumption does not help in overcoming the language barrier amongst graduates or high school leavers, especially those with poor proficiency in English, to work in the aviation industry. Although the ICAO has issued the regulation for aviation personnel to undergo the ELPT test, it is unreasonable to condition that the AVM trainees undergo the assessment before conducting the NA process. The NA study is useful as it addresses the current global concern regarding AVM graduates and trainees who have the required proficiency to be on par with other aviation personnel, such as pilots, ATCs, engineers, cabin crew, and other aviation personnel.

The study contributes to the literature on the teaching and learning of oral and written proficiency, which will benefit the AVM trainees regardless of the department or position they assume upon graduation. The findings are also substantial as they explore how several subjects can be combined to develop an ESP based curriculum. Besides designing a curriculum that will benefit AVM trainees, the study also aims to enhance the profile of

UniKL MIAT as the pioneer aviation management university to improve overall and specific language competence and to introduce UniKL MIAT trainees to a wider cultural context.

Over the years, a substantial number of studies were performed on the development of an English proficiency curriculum for pilots, ATCs, aircraft engineers, and other aviation personnel. However, no study was recorded for the development of an English course for aviation management personnel or trainees. This study also aims to fill in the gap in the current English course offered to the aviation management trainees by proposing an ESP course, specifically for the Aviation Management Trainees. This study has contributed to another branch of the AE study. In addition, this research is the first research to investigate the oral and written proficiency needs of a mixed group of AVMs personnel from the airline, airport, catering, cargo, and ATC department personnel. Most of the course design process requires course designers or language practitioners to focus on a particular profession. Accordingly, the findings of this study would be to design a course that will benefit regardless of the department or position they enrol in upon graduation.

1.12 Conclusion

This chapter discusses the development of the aviation management industry in Malaysia that resulted in the introduction of the aviation management programme. The programme courses were delivered in English, while trainees were required to have proficiency in English and the ability to manage the airline, airport, ATC, or logistics operations. The research questions and objectives were proposed to address the research background and develop an ESP course for aviation management trainees with specific teaching materials and assessments. The following chapter presents the literature of previous studies and theories related to ESP.

1.13 Thesis Overview

This thesis is divided into seven chapters. Chapter One describes the AVM personnel, their role in the aviation industry, and the factors leading to the importance of English proficiency and communication skills for the next generation of AVM personnel, which comprise AVM trainees. This is followed by a brief description of the job scope of the AVM personnel, the lack of literature on the needs for AVM English, and the importance of addressing the trainees' needs by developing a specific English course.

Chapter Two presents a survey of existing literature regarding the topic of AE. Important background information about the role of ESP in the development of English language proficiency (ELP) test, AE courses for Pilot, ATCs, and several other aviation personnel is presented. The field of Needs Analysis (NA) was investigated to understand the needs, lacks, and demands of AVM personnel in the use of English for work purposes and to analyse the influence of NA on the development of ESP education for the target group. Similarly, Task-Based Language Learning is explored besides observing the role of authentic materials as teaching materials. The literature review would analyse the minimum criteria, which are expected of AVM trainees by examining their English proficiency assessment criteria.

Chapter Three explores the methodology utilised for this research. The subtopics highlight the methodological choices in light of the research goals, which include the investigation of the AVM personnel communication needs to determine the type of English proficiency needed by AVM trainees for workplace communication, the gaps between the present GE course, expected learning outcomes, and the considerations in designing an ESP curriculum to prepare the AVM trainees for workplace communication. A participatory approach was applied to examine the AVM personnel and AVM lecturers' perceptions. The rationale and design of using the methodology are described, including the process of data collection and ethical clearance.

In Chapter Four, the data collected from the respondents are examined to develop a taxonomy of English language skills and functions for the aviation management contexts. This taxonomy was surveyed along with the feedback from the respondents to evaluate the degree to which the research participants considered the need to incorporate aviation management topics and specific language skills in the English curriculum.

Chapter Five analyses the gaps in the current curriculum, in which a comparison between the actual English language uses in managing aviation management tasks and the content of the current English curriculum was performed. In addition, the current materials used for teaching and sample materials designed were examined to determine their appropriateness for learners and investigate whether ESP education adequately reflected the authentic use of language in the target domains. Importantly, the taxonomy of language use in aviation management was compared with current ESP curricula and methodology and former students/alumni feedback regarding their learning experiences. Following the application of the findings of this study, Chapter Five proposes a framework of the ESP curriculum to cater for the communicative needs of the AVM trainees.

Chapter Six illustrates the perceptions of respondents on the minimum oral and written level of language ability expected by employers for the acceptance of potential AVMT learners into the workplace and the specific criteria to be adopted by employers when the quality of oral and written output was evaluated. Respondents evaluated the oral and written output produced by trainees based on the selected rubrics. With the evaluation process, the suitability of the rubrics used was investigated.

Chapter Seven summarises the findings gathered from the study. Besides the summary, several implications for improving trainee's communicative ability are considered with some suggestions for rectifying these issues and maximising learner outcomes. Following

that, future research directions for enhancing ESP studies especially involving two disciplines, are presented.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section discusses the importance of communication in aviation management and reviews the literature related to Aviation English (AE). It also presents the implication of conducting a needs analysis and curriculum development in designing a course for a specific purpose. This section's final segment discusses the analyses of the assessment methods for the proposed course and the case studies on English for Specific Purposes (ESP) course development.

2.2 Communication in Aviation Management

Communication is a highly crucial task in aviation management. Given that the industry is highly regulated, communication is regarded as the main driver in coordinating activities in the AVM industry, be it internally, inter-department, domestic, or international. According to Wensveen (2013), communication in aviation management refers to managing matters concerning routine operations, steady orders, enquiries, the solution to problems, and suggestions to various parties within and outside the organisation. The AVM personnel acts as the liaison of the department or organisation to handle the coordination of the major and minor activities, which often require AVM personnel to communicate. Therefore, trainees should be aware of the importance of effective communication skills for their future workplace.

The common modes of communication, namely oral and written, are used by the AVM personnel. Provided that the communication process in aviation has improved significantly, new communication technologies have become easily available, while the use of email and WhatsApp facilitate communication (Jendrych, 2013). The fierce competition in the aviation industry and safety requirements are among the factors leading

to the development and maintenance of an efficient communication system in organisations. Today, passengers can perform web check-in, receive information on flight cancellations or delays, and monitor flight movement via their mobile phones. For this reason, communication will continue to be important in aviation.

Highlighting the importance of developing the communication skills of AVM trainees, the study by Kutz and Kutz (2000) on creating future aviation leaders highlighted that good communication skills are essential in developing AVM talents, which are efficient in performing their jobs and capable of presenting themselves in a professional manner (Kutz & Kutz, 2000). Similar to other industries, two-way communication between employers and employees is vital in AVM. The management needs to communicate with the employees to advise about new regulations and policy amendments, to explain decisions concerning route expansion or closure, and other essential information related to the company.

Employees on the other hand have opinions, ideas, or dissatisfactions to address to the management team. Thus, the development of AVM trainees' communication skills should be emphasised to equip future aviation players to be aviation leaders. The survey on skills and values for aviation graduates by the Aviation Accreditation Board International (AABI), listed "communicating well with others" as one of the top eight skills and traits for aviation managers (Phillips et al., 2006; Quilty, 2005). Following the findings on communication skills, Kutz and Kutz elaborated that employers in aviation organisations list poor ability to communicate as an issue among AVM personnel. This issue includes poor spelling ability, lack of knowledge of grammar rules, and inability to communicate. Therefore, the employers expect that the AVM course administrators incorporate these aspects into the curriculum.

Philips et al. (2005) investigated the literature for studies performed between 2002 and 2005 on the strengths and weaknesses of aviation management graduates. The studies

indicated that AVM graduates must be able to articulate ideas clearly and concisely through verbal and written means, present information in formal and informal situations, produce emails, memos, and reports without grammatical errors, and be aware of when and where to use standardised aviation forms. According to Ting et al. (2017), higher learning institution students in Malaysia agreed that language proficiency could affect their communication ability. However, the students disagreed with the view that good English proficiency could help the student communicate in a professional manner. This condition possibly occurred as the students had no exposure to the industry expectations.

According to Tatzl's (2015) survey among interns who completed their training in Austria, English was the medium of instruction used for workplace communication, particularly for documentation and written communication. This situation emphasised the importance of English proficiency among trainees before joining the industry although they are non-native speakers of English. In general, the importance of English proficiency for aviation personnel has been highlighted in all states regardless of the status of English as a second language. In a recent study performed by Mott et al. (2019) of Purdue University, communication was listed as one of the core competencies in safety and the cornerstone for business and management.

*Sub-level competencies related to **written communication** are as follows:*

1. *Understanding the context and purpose of writing, including considerations of the audience and the circumstances surrounding the writing tasks.*

2. *Utilising appropriate genre and disciplinary conventions; and*

3. *Utilising appropriate sources and evidence.*

The sub-level competencies associated with oral and interpersonal communication are as follows:

1. Clear and consistently observable organisational pattern,

2. Thoughtful and effective choices of language, and

3. Presenting a clear and consistent central message.

Source: Mott et al. (2019)

In addition to the oral and written sub-level competencies required of aviation management trainees, professional communication skills within and beyond the workplace influence effective communication. As cited in the study, the proficiency desired of AVM trainees suggested that trainees must have the ability to express their opinion regardless of the situation, purpose, or people they deal with.

According to Bhatia (2004), the conception of professional expertise comprises a balance of three essential parts, namely disciplinary knowledge, professional practice, and discursive competence. Disciplinary knowledge is the substantiated understanding of the theories and concepts used in the field. Professional practice is the communication behaviour in the verbal and written form by trainees or personnel from different countries and cultures, whereas discursive competence is associated with the textual, generic, and social competence characteristics required in the field.

Ting et al. (2017) conducted a study on the significance of the employers' views on English proficiency and communication skill to secure employment in Malaysia. The findings demonstrated that good mastery of the language is essential to determine the professional expertise of a speaker, given that messages are commonly encoded in a language. Language proficiency is important to ensure that a speaker is able to interpret and construct messages correctly besides having more means of articulating their opinions. Ting et al. (2017) cited Byrnes' (1984) idea that it is not possible to teach interactional skill to students who are less proficient in English. This situation strongly suggests that good communication skill is determined by the speakers' good proficiency

in the language. However, the question of whether AVM trainees must be proficient speakers of English depends on the context and audience they are required to manage. Given that the scope of this study involved UniKL AVM programme trainees, it was necessary to seek stakeholders' opinions about whether proficiency was an important criterion in workplace communication.

Based on the above literature on the importance of oral and written communication in AVM, including professional expertise, determining the stakeholder's opinion on the importance of English proficiency in their current job scope is important. It is also necessary to investigate stakeholders' opinions on the current GE curriculum offered to the AVM trainees. To address the trainees' language needs, course designers or language instructors should explore the need to include disciplinary knowledge in the English curriculum in terms of aviation language and genre professional needs. Similarly, following is the statement by Mott et al. (2019) in their study on developing a framework for AVM programmes:

"…communication is considered a fundamental required competency impacting safety, airworthiness (ICAO, 2015), and other critical operational outcomes in aviation, as well as a cornerstone for business and management."

Source: Mott et al (2019). Competency-based education:
A framework for aviation management programs.
Collegiate Aviation Review, 37(1).

The above statements suggested that communication in aviation is crucial for safety reasons and for AVM personnel to perform business and management-related activities. This statement also implies that communication in AVM is specialised and contextualised. As discussed in Chapter One, the AE curriculum is focused on developing English proficiency with emphasis on aviation aspects and genre, while Business English (BE) curriculum aims towards developing English competency for business and management activities and contexts. Before delving deeper into the AE and BE concepts,

it is important to understand the difference between the terms "English proficiency" vs "English competence" and "English competencies".

2.3   English Proficiency vs. English Competence

English Proficiency refers to a leaners ability to use English to make and communicate meaning verbally and in writing during their program of study. English proficiency can be defined as the ability to use language accurately and appropriately in its oral and written forms in various settings (Cloud, Genesee, & Hamayan, 2000). English proficiency is defined as having expertise or being very skilled or knowledgeable in using English to speak about a certain subject such as aviation or medicine. To be proficient in English, trainees require knowledge and skills using the linguistic components. Finally, being proficient in English requires skill in correctly using the four language domains; listening, speaking, reading, and writing for various purposes, in a variety of situations, with a variety of audiences.

English competency refers to demonstrating reading, listening, speaking, and writing skills in English. Competence refers to a standard of performance. Competence defines the mastery or criterion levels of performance in using a language. Therefore, the English competency is measured based on standard criteria. The English competency required is decided based on the objective of the course and programme.

The use of both terms cannot be used interchangeably. Therefore, the study seeks to determine if the AVM trainees require English proficiency, English competence, or both for their future workplace requirements.

2.3.1 Communicative Competence

According to Hymes (1972), communicative competence can be divided into linguistic knowledge:

…."phonology and orthography, grammar, vocabulary and discourse" and pragmatic knowledge, i.e. "functions, variations, interactional skills and cultural frameworks" .

<div align="right">Source: Hymes (1972)</div>

In teaching a language, EL teachers must ensure that the learners are able to use a language not only correctly but also appropriately. Also, when learning a language, the trainees should acquire *"competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner"*. Especially in teaching English for workplace communication, the learners or trainees must understand the importance of communicative competence.

Canale and Swain (1980) proposed a theoretical framework for communicative competence that included grammatical, sociolinguistic, sociocultural and strategic competencies. In their view, sociolinguistic competence consisted of sociocultural rules, which are required for the correct production and understanding of utterances within specific communicative events, and rules of discourse, which refer to the appropriate attitude and register or style that must accompany grammatical forms within various sociocultural contexts. At that point, Canale and Swain also cautiously labelled the rules of discourse "*in terms of the cohesion (i.e. grammatical links) and coherence (i.e. appropriate combination of communicative functions) of groups of utterances*".

Communicative competence means having 'a competence to communicate'. This competence can be oral, written or even nonverbal. It is an inclusive term that refers to possessing the knowledge of the language as well as the skill to use the language in real-life situations for fulfilling communicative needs. Language, according to many researchers, is a means of communication, and it comprises four main skills; vis, listening, speaking, reading and writing. To acquire these language skills, one needs not only to learn grammatical rules but to practice such skills till he gets used to all of them.

Communicative and discourse competence do not solely refer to spoken language, but also to written language production. Just as in the case of spoken interaction, proficient language users must be able to arrange, organize and structure written sentences by using effective cohesive devices and discourse markers in an appropriate register and style with the help of suitable rhetorical devices for specific communicative purposes. The development of discourse competence is considered to be "a key element of an individual's overall communicative competence in a language", especially for language users who need to develop their academic writing skills (Bruce, 2008).

On the other hand, discourse competence is generally acknowledged as part of communicative competence in a language. Bhatia (2004)proposed that the concept of discursive competence should be introduced in general socio-cultural and professional contexts.

However, both the AE and BE curricula are ESP courses and specialized to its contexts. Therefore, it is necessary to delve into the details of ESP theory and its development. Hence, the next section will present an in-depth discussion about ESP.

2.4 English for Specific Purposes (ESP)

English for Specific Purposes or ESP approach is one of the most widely used theories in English Language Teaching (ELT) today. It is a branch in applied linguistics study, with its theory evolving since its introduction.

Although evidence has demonstrated the signs of the emergence of ESP since the 1960s, the literature on ESP theory during this period until 1987 was extremely scarce. The first serious discussions and analyses of ESP were developed in 1982, including Strevens' (1980) perspective on the need for language teaching professionals to balance between the 'practical' and the 'academic' aspects of language teaching. Strevens challenged the holistic approach to education by stating that success is not only measured through learners performance in the course and assessments, but it also measures the

ability of the learners to communicate effectively outside the classroom and with their future employers.

Hutchinson and Waters (1987) defined ESP as a specific English course, which has been designed for a particular group of learners through analysis of the linguistics characteristics of their specialist area of work or study. Hutchinson and Waters (1987) elaborated further that, in contrast to other ELT theories, ESP focuses on creating English teaching and learning situations that meet the learners' needs, particularly the work, academic, or other needs. The GE course is commonly designed based on the general perception of learning English and can be reused for any type of learner.

For the ESP course designer or teacher to create an ESP curriculum or teaching approach for target learners, Robinson (1991) or Dudley-Evans and St. John (1998) emphasised that analysis of needs, course content, materials, and assessment should be performed. Given that the course is designed for a specific group of participants/learners, determining why, what, and how the learners will be using English is important. Therefore, proper analysis is required, followed by evaluation of the design course before it is administered. In these processes, the teacher acts as the principal actor.

The concept of needs was introduced by West (1994) to determine the purpose of using English for work, academic, or others and to understand how learners can be prepared for the target context. Through the investigation of the practical need for using English in the target context, the importance of the language needs analysis increases. The learning needs to be determined especially when it involves a foreign language to ensure that the learners are able to use the language appropriately. To illustrate, customer service trainees from Malaysia, the Philippines, and India undergo specific English training based on their needs to communicate with clients. With ESP training, these trainees whose first language is not English are able to handle customers' enquiries and complaints and assist the customers in English, which increase job opportunities. Even though these trainees do not

need to undergo the GE training to learn about English grammar, syntax, and semantic rules, they need the training to use English when placed in various situations. For this reason, the English used in aviation is not English for General Purposes nor English for International Purposes; it is considered as a sub-division of ESP (Douglas, 2000). Aviation trainees should have a certain grasp of English proficiency and be able to improve and use their English language skills through the ESP training to perform their tasks.

Belcher (2006) further explained the main elements of ESP methodology, the disciplines related to it, the reasons for NA importance in ESP, and the necessity of needs-knowledgeable instructors. The term "needs-knowledgeable instructors" refers to the EL teachers with an awareness that English language training cannot be generalised to learners with different language learning needs. The problems in education are "unique to specific learners in specific contexts". Learners have different reasons for learning English, therefore, learning purposes should not be generalised. Belcher (2009) elaborated that ESP is a learner-centred type of language instruction. Provided that ESP teaching is related either to employment or education, the methodology applied by instructors must be distinguished from other approaches. In addition, Belcher introduced problem-based learning (PBL) as a methodology to develop an ESP-based syllabus for a nursing course where the learners are able to practise using their language to manage the problems in the real workplace.

Bhatia's area of ESP research on the genre has contributed significant information on ESP development. According to Bhatia (1997), the development of the academic and professional communication of participants, instructors, or course designers should not exclude the investigation about the genre and discourse of communities or members of individual professions. Given that ESP participants may be differentiated according to the

genre and discourse requirement, this aspect must be investigated before the commencement of course design.

Bhatia (2004) explained that the genre and discourse in the analysis of legal texts, for instance, could be seen through the intertextuality in documents, which are often used for la-related matters, such as the legal words, clauses, and sections. The importance of intertextuality was emphasised by Bhatia as the intertextuality signifies the command from the regulatory body, offers a specific reference, facilitates textual mapping, and explains the scope of the legal term. However, Bhatia highlighted one of the major criticisms of teaching ESP learners. It was also highlighted by Bhatia (2008) that when learners are placed in professional settings, despite their capability to understand and memorise the words and clauses used, they remain unaware of the ways to apply or interpret these discursive features when managing it in their profession.

Learners must undergo extra training or require a longer time to grasp the language culture at their workplace situations to understand the reasons for using this discourse. As such, the ESP teacher should always try to put themselves in the position of the learner or trainees. To illustrate, the technology advances when time evolves, leading to fierce competition to secure jobs and different needs among trainees. The trainees depend on the teacher's guidance in developing their ability to communicate efficiently. However, the ESP teachers have to play a role in keeping themselves abreast with the latest technology while the trainees aim to learn English. This condition would enhance the trainees' interest as they are able to take part in deciding the method of language learning activities, which are more engaging and interactive. This situation would encourage trainees to perceive the continuous need to develop their English language skills, given that the skills will be used in their activities instead of studying only for the examination (Larsson, 2001).

Trainees should know the methods of applying the knowledge to different genres and discourses. This condition could lead to Belcher's introduction of problem-based learning (PBL) in ESP teaching for nursing education. According to Belcher (2009), the use of PBL is aimed towards the learners' experience of using English to solve real problems related to their profession besides the opportunity to develop their critical skills, which could be used upon managing conversations with the target community. Similarly, when Belcher introduced problem-based learning (PBL) in ESP teaching for nursing education, the primary idea was to relate the language learning purpose to real-world problems. The learners would be able to communicate with patients with ease.

Basturkmen (2009) traces the development of AE using the ESP approach. Given the discussion in the previous section, communication in aviation involves discourse for a narrow-angled and highly contextualised content learner's specific need for operational proficiency. Therefore, ESP is appropriate to enhance aviation personnel English proficiency as the methodology emphasises the importance of deciding on the specific objectives for training or ab initio training to foster a safe and efficient operating environment. In reviewing the discourse used in the dentistry field, Basturkmen (2012) conducted an in-depth analysis of the schematic structure of discussion sections in dentistry reports. It was found that through the teaching of ESP, the discussion section of medical reports was the most heavily rhetorical division. Thus, the teaching of report writing could not be generalised due to the difference between genre and discourse. Besides genre and discourse analysis in ESP, Basturkmen has also contributed to a reasonable amount of literature on the importance of Needs Analysis (NA) in ESP.

In a study on the new development of ESP teaching and learning, Sarré and Whyte (2017) offered important insights for ESP teachers and course designers to study different ESP situations. As the course designers or ESP teachers created course and materials, the understanding of the underlying context of the language use in the profession and the

culture practised in the profession was important. Equally, determining the ways of allowing learners to cope with the language learning process was crucial. Teaching is not possible among the ESP teachers solely through the use of authentic materials or the tasks related to the work. However, they need to gain awareness of the influence of context and culture on English teaching. Similarly, the ESP approach is considered the most suitable approach to enhance AVM trainees' English proficiency. Given the context of the trainees' background and workplace requirement, it is crucial to ensure that the English courses offered to AVM trainees place further focus on the language in context and the skills required to perform in the target situation besides enhancing the trainees' grammar skills and language structure.

English for specific purposes (ESP) courses are often discussed in terms of a two-way distinction between 'wide-angled' and 'narrow-angled' designs. The term 'wide angled' refers to courses for learners targeting a professional or academic field or even for the purpose of working in a foreign country. The term 'narrow angled' refers to courses for learners targeting a particular profession or academic environment and workplace. Often wide-angled course designs are based on the premise that there is a set of 'generic' skills, and linguistic features are transferable across different disciplines and professional groups. However, narrow-angled designs were proposed as the users need may be context-specific (Hyland 2002). Table 2.2 illustrates several narrow and wide-angled course designs in ESP.

Table 2.1 Wide and Narrow- angled Course Designs

Type	Course Design Purpose	Examples
Wide-angled	➢ Courses for learners targeting a broad workplace, professional or academic field. ➢ Designed for a group of learners with similar needs	English for Academic Purpose (EAP), English for Banking, English for Medical Practitioners, English for Tourism, Legal English

		and interests targeting a broad field.	
Narrow-angled	➤ Courses for learners targeting one particular workplace, professional or academic environment.		English for Non-Native Pilot and ATCs, English for Aircraft Engineers, English for Legal, English for Law Practitioners
	➤ Designed for a group of learners with almost homogenous needs targeting one particular discipline or occupation.		

According to Basturkmen (2003), a large number of studies on ESP have shown that demand analysis has a "centripetal" nature. It mainly studies what learners need to learn. How learning relates to a particular major or occupation; How lexical, syntactic and discourse structures fit with the language application of a particular specialty. The roles in workplaces are simply too diverse for any one ESP course to deal with in depth. It seems that ESP can never be specific enough on the one hand and on the other hand can also be too specific at the same time.

The literature presented in this section suggested that a specific investigation into AE and BE is vital, although their purpose of learning English was not reported.

2.5 Aviation English vs Business English

Aviation English (AE) is a category of ESP. Similar to Business English, it involves the use of specific English to communicate about non-routine and work-related situations. The following section provides a brief overview of AE and BE before discussing the appropriateness of selecting either one of the approaches for teaching AVM trainees.

2.5.1 Aviation English

The history of communication has been an issue of debate since 1944, when the call for uniformity of language for communication was raised. The different languages used for aviation purposes, such as Russian, Arabic, and Mandarin, often lead to

miscommunication and a series of air crash incidents and accidents. Despite the signs of the existence of AE since 1900, the use of AE has yet to be formalised by the aviation authority. Furthermore, the irregularity of language was the main factor contributing to the mandatory requirement of English proficiency for pilots, ATCs, and other aviation personnel in 2004. The decision of ICAO concerning the proficiency of English was supported with the establishment of an ELP test holistic descriptor. Following the announcement of the requirement, airline companies and aviation training institutions worldwide have actively started working on developing the test and training for pilots in compliance with ICAO English requirements.

Baron (2011) draws attention towards the distinctive category of the flight crew, which is known as crew resource management (CRM). The CRM team is responsible for ensuring that all aspects of the flight operation are performed in accordance with the regulatory and standard operating procedures of the company. The CRM bears the responsibility for the safe execution of the flight. According to Baron, besides pilot and ATCs, the CRM includes the flight engineer, the ground engineer and maintenance personnel, flight attendants, ground handlers, airline, and airport facility management. Crew Resource Management skills commonly vary between different airlines, although a set of compulsory non-technical (NOTECHS) skills cover most of them on an aggregated level. Alavosius et al. (2017) identified the following six core skills:

1. Communication

2. Situational awareness

3. Decision-making

4. Teamwork

5. Management of limits of crew members' capacities

6. Leadership

Communication is the first skill listed in the non-technical skills. The ICAO imposes the English proficiency and communication skill regulation to reduce the hazard, which occurs due to miscommunication between speakers of different native languages. This implementation is performed due to easier management when one single language is used. The international airlines and MRO companies have been conducting communication training for the CRM groups to ensure that the communication ability of these groups meets the requirement set by the training department and safety department personnel of the organisation. At the same time, a consensus among course designers that the English language needs of the CRM groups are distinct is also present.

Given that the aviation personnel work in a highly specialised area, each category of aviation personnel consists of a set of technical vocabulary and grammatical structures that they are required to use besides communicating in plain English (Barbieri, 2014). Hence, various types of AE courses were designed. However, what exactly is AE and how did it emerge? To answer this question, Aviation English (AE) is defined with the umbrella term covering the language used by aviation management personnel, such as pilots, ATCs, aircraft maintenance engineers, and other aviation personnel. Aviation English is highly dependent on context and shared phraseology. In the aviation dictionary, masses of terminologies and jargon, which are used by aviation personnel, are present. Trippe and Baese-Berk (2019) mentioned that aviation English is not solely focused on teaching standard phraseology or vocabulary, but it involves the knowledge about language use in various contexts. Knowing a restricted language allows the speaker to communicate effectively in common routine situations instead of novel situations, or the context outside the vocational environment (Mountford and Mackey, 1978). Therefore, when phraseology is insufficient pilot, ATC uses plain English to enhance understanding and avoid any misunderstanding or miscommunication.

Before the establishment of any global aviation organisations, the use of English is prevalent in international travel for both maritime and aviation endeavours (Campbell-Laird, 2004). This condition could be due to the fact that ac manufacturers are native speakers of English. According to Campbell-Laird, the English use by pilot and ATC was first mandated by the Federal Aviation Authority (FAA) U.S., with the phrase "*be able to read, write, and converse fluently in English.*" After the requirement was imposed, all FAA examinations were administered in English. During the Chicago convention in 1944, the delegates comprised representatives from America, the United Kingdom, Canada, and Australia. The participants' first language was English, while the American and British delegations had the best negotiating position in terms of the aircraft operations in the world (Chovancová, 2014). The ICAO was then urged by the states to look into problems related to miscommunication. In this situation, the requirement of English usage in Pilot and ATC communications became necessary as the requirement for a standardised language was not issued, while foreign pilots were faced with communication issues when entering countries including China, Russia, and Middle East countries. This phenomenon was attributed to the absence of law stating the requirement to use English. In 1980, through educational efforts, ICAO released its AE publication, Aviation English for Air Traffic Controllers.

Although some terminologies and jargon are common amongst the majority of aviation industry personnel, variations are present in the interpretation of the terminologies and abbreviations that may lead to misinterpretation in some cases. All companies especially airline companies apply standard terminologies and phrases with usage that may differ between organisations. The pilots and ATCs could request 'readback' if they are not sure of what is being mentioned. Prescribed protocols for pilots and controllers are present. However, when speakers deviate from the standard phraseology and continue to express their interpretation of aviation terminology and plain language, problems in

understanding may occur. An example of this situation is the Phonetic Alphabet system. Several examples of the phonetic alphabet are as follows (a complete list is shown in Appendix):

Table 2.2: Aviation and Airline Phonetic Alphabet

Alphabet / Code	CRM Team	Airline Ticketing and Customer Service
A	ALPHA	AUSTRALIA
B	BRAVO	BELGIUM
C	CHARLIE	CANADA
D	DELTA	DENMARK
E	ECHO	ENGLAND

The table above demonstrates the variants on the use of the phonetic alphabet among aviation personnel. The difference between interpretations of the alphabet does not interfere with the communication, however, it indicates the variations in the vocabulary and abbreviation usage among the aviation personnel. Besides terminologies and abbreviations, the documents or materials used also vary, which indicates the need to propose an ESP-based AE course for a specific job scope and context.

The AE encompasses the general English proficiency requirement. Similar to other ESP courses, the pilots, ATCs, engineers, and ground handlers communicate frequently and use standardised phraseology for several phases including take-off, landing, towing, and asking for clearance. However, given that communication is required beyond these tasks, a specific AE course is made for each group. The language used between pilot and ATC, ATC, and Engineers or maintenance personnel, Engineers and ground handlers, varies in the linguistic level, differs from plain English, and falls under the ESP (English for Specific Purposes) category in linguistics (Breul, 2013). The AE can be applied to address the proficiency requirement of other aviation management personnel. The figure below illustrates the AE courses that have been designed as of date.
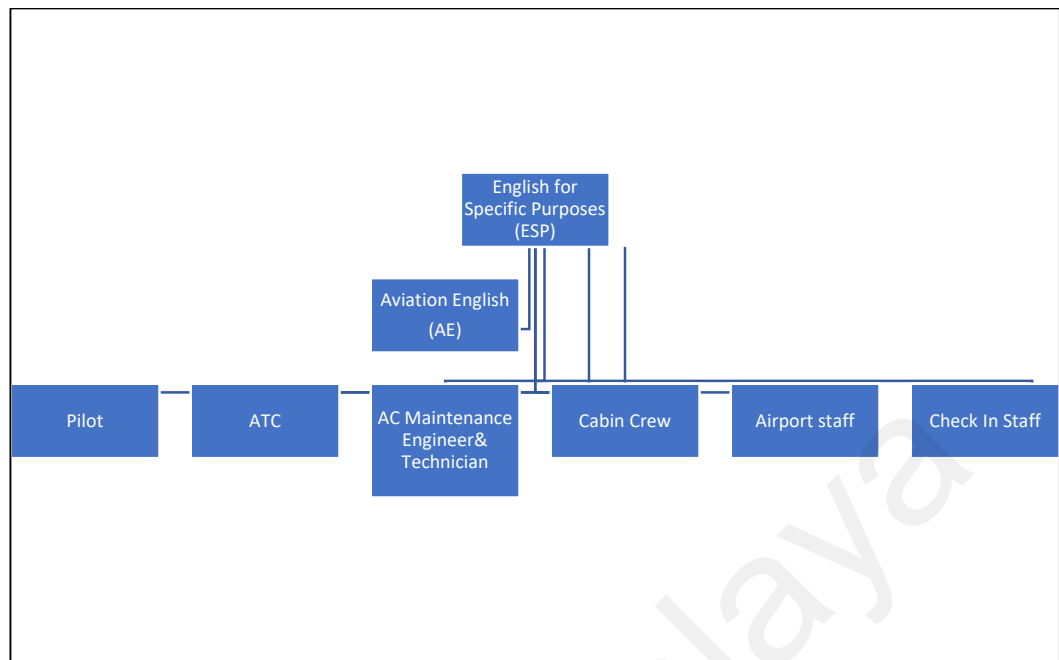
Figure 2.1: List of Developed AE Courses

Based on the review of the published research, Figure 2.1 illustrates the AE courses that have been developed until recently for several groups of aviation personnel based on ESP-based research. As previously discussed, the English proficiency requirement was initially a mandated requirement for pilots and ATCs. However, other CRM groups had to fulfil the requirement for safety and business reasons. Today, the pilot and ATCs who are flying in local airspace or international airspace are allowed to solely use English for aeronautical communication. Several differences are present between the AE courses for each group, pilot and ATCs, and the rest of the CRM groups, which will be discussed in the following sections.

AE for Pilots

Besides engaging with controllers through radiotelephony communication, pilots are required to communicate with the flight crew and engineers to ensure safe and efficient performance. Besides the airline manual, pilots are required to refer to the Pilot Manual, where they should understand and interpret the maximum landing weight, aircraft central gravity, basic empty weight, standard weight of fuel, and maximum take-off weight.

Merritt (2000, as cited in Hazrati, 2015) emphasised that pilots are commonly at the technological and modernised forefront of their country workforce, with the majority of them having to travel to other countries as a regular part of their jobs. As such, good proficiency in English enables the pilots to communicate with the other nationalities if the ac needs to layover or transit and if the pilots are stationed in another country. Pilots may also need to use plain English to discuss with foreign ac engineers or agents if they need to obtain clarification on technical aspects of flight upon the presence of any irregularities. Therefore, the AE course for pilots aims to develop the ability to communicate in non-routine situations besides preparing them for the proficiency test. Some of the research works on the development of AE for pilots were conducted by Bieswanger, Prado, and Roberts (2020), Karimi et al. (2019), Kim and Elder (2015), and Knoch (2014).

AE for ATCs

The ATCs or controllers' communication with pilots involves the use of coded scripts. However, there are cases when the use of plain English becomes necessary especially during unexpected situations or emergencies. Thus, the AE training helps enhance the controller's English proficiency to ease their communication using plain English in non-routine situations with local and foreign pilots. This action could avoid any misinterpretation, which may lead to catastrophic incidents. Besides, controllers are required to use English to prepare reports and maintain records as required by the local aviation authority and alert airport emergency services in cases of emergency e.g., fire at the ac engine, or detection of foreign object debris (FOD) on the runway or taxiway. This is followed by an analysis of factors including weather reports, fuel requirements, and maps to determine air routes. Some of the published literature works on AE training for

ATCs were produced by Mekkaoui and Mouhadjer (2019), Roberts, Drayton, and Estival (2019), (Breul, 2013), and Boschen and Jones (2004),

AE for Aircraft Engineers

Aircraft Engineers play a highly important role in maintaining safety in the aviation industry, making English language skills essential for this group. The ac engineers are responsible for ensuring the continuing airworthiness of an aircraft or the aircraft parts. In this case, the authority has set an extremely high standard in the engineers qualifying examination, which consists of written and oral examination. Furthermore, the AC engineers need to read ac manuals (e.g., maintenance manuals, troubleshooting manual), bulletins, illustrated part catalogue (IPC), memos, and emails. In addition, ac engineers are required to conduct briefings to technicians, report incidents, make phone calls, communicate with other CRM personnel, and attend meetings. They are also required to write reports (e.g., delay report and incident occurrence report), email, memos, and other documents according to the organisation. Listening to briefings, announcements, and presentations, and attending training and examination are parts of the ac engineers' job scope.

In contrast to pilots and ATCs, the nature of their job leads to the necessity of reading, speaking, writing, and listening skills among ac engineers. Hence, the AE course for ac engineers is specifically designed based on the tasks that need to be performed. Some of the literature works on studies revolving around ac engineers were produced by Embryany and Ratmanida, (2020), and Lin, Wang, and Zhang (2014).

AE for Cabin Crew

Upon boarding the flight, passengers are attended by the cabin crew or flight attendants. The flight attendants must communicate with the passengers to ensure that passengers feel safe and comfortable during the flight. Flight attendants of domestic or international flights are often required to serve foreign passengers, where they should communicate in English, given that it is the common language. Most cabin crew trainings include a lesson on making announcements and using standard phrases or statements when serving passengers. However, the AE course for cabin crew is designed to enhance the cabin crew's English language skills and enable communication with passengers in non-routine situations or during an emergency. The research work by Hilmi (2019), Xiaoqin and Wenzhong (2016), Alam (2015), and several other researchers contributed to the literature on AE for cabin crew and flight attendants.

AE for Airport Staff

Airports around the world are mostly owned by the state government and managed by government-linked companies. To illustrate, the airports in Malaysia are managed by Malaysian Airports Holdings Berhad (MAHB), while the international airport in Singapore has been commercialised due to private interests in airport operations. Generally, all airport management strives to maintain the airport to the highest standard to attract more travellers or tourists into their country. This approach ensures that the airport front liners are properly trained and the best service is provided. Furthermore, airport front liners comprise general enquiry staff, customer service staff, baggage services staff, ramp control staff, landside and airside management staff, and ground handlers (ramp control). These employees are responsible to manage passengers and visitors on daily basis. In this case, proficiency in English is essential to ensure that miscommunication is avoided especially when managing foreign passengers or clients.

Several works of literature about studies on the development of AE course for airport staff were produced by Barkhordari, Branch, and Azad (2017), and L. Ting (2010).

AE for Check-in Staff

Check-in staff are appointed by the airline management. The main task of this group is to ensure a smooth transition during the passengers' check-in process until they board the flight. Besides the good quality meal, good inflight entertainment service, and airline staff's service attitude, a high degree of politeness should be displayed through language and communication (Jones, 2004). To deliver efficient and quality service, airline check-in staff are required to possess good English language skills and awareness of English language usage in terms of politeness in every encounter. In the study conducted by Lee (2015) for the development of pragmatic competence in airline English learning, the need for an AE course for check-in staff was highlighted.

It was demonstrated through the literature on AE courses that the English language needs for almost all aviation personnel have been studied except for AVM personnel. Though this personnel made it a requirement for the other CRM groups to improve their English language skills, their language needs were not reported. Hence, it is important to conduct this study to determine the English language needs among the personnel if the AE could be considered for the AVM personnel. Additionally, it is noteworthy that the high percentage of the literature published on the listed AE courses mostly involved the non-native speakers of English. This condition was possibly attributed to the fact that English was not the lingua franca of the organisation. It was also caused by the rating standard set by ICAO in testing aviation personnel.

The English competency of the aviation community around the globe is not standardised (Ragan, 1997). The aviation community tends to use the type of English that is common in their country. Variations are present in the vocabulary choice,

pronunciation, accent, and slang among various English native and non-native speakers. Boschen and Jones (2004) also concluded that American aviation personnel appeared to have less consciousness about language problems compared to the members of other states. In fact, for all states where English is the native language, there is less emphasis on training to improve English proficiency. Thus, the AE courses aim to improve the aviation personnel English proficiency and communication with a specific focus on reducing the interference of the speakers' first language (L1). The aviation personnel should sound similar or almost similar to the native speakers of English. Although the AE course also prepares the personnel for the ICAO ELP test, its topics are decided by the course designers according to the participants' workplace requirements and based on the annexes.

In workplace communication, proficiency in the language does not solely focus on sounding similar to a native speaker. However, it refers to the ability to use the working language in oral and written communication. This feature is also the factor for English to become the dominator language in aviation. Furthermore, the aviation personnel are required to use English when performing skills related to their jobs, such as reading manuals, speaking for asking information, and listening to an announcement or writing reports. This notion was emphasised in Mott et al. (2019), where the students graduating from the aviation management programme were expected to be capable of communication in writing and through visual and graphical presentations, including oral communication using appropriate methods to their field of study and future careers.

Although it may seem that the readily available AE courses could be replicated for the development of AVM trainees' English proficiency, the "one size fits all" training is inappropriate. The AE courses that have been developed for the different types of aviation personnel are focused on enhancing the personnel's speaking and listening skills. However, AE for Maintenance Engineers and Technicians, includes writing and reading

skills. Nevertheless, the content of the AE course for ac engineers is specific to the job scope of the personnel and could comprise technical aspects, which may not be necessary for the AVM personnel.

In one of the early literature works reported on AE, Ragan (1997) clearly specified the differences between the language needs of different aviation personnel. Therefore, Ragan suggested the following content areas, which have also been identified under the umbrella of Aviation English:

1. Flight

- ➢ *Air Traffic Control*
- ➢ *Flight Services*

2. Technology

- ➢ *Airframe and Powerplant Mechanics*
- ➢ *Avionics*
- ➢ *Aircraft Manufacturer*
- ➢ *Flight Line Operations*

3. Engineering

- ➢ *Aeronautical Engineering*
- ➢ *Aerospace Engineering*

4. Business

- ➢ *Airline/Charter Services*
- ➢ *Fixed Based Operations*
- ➢ *Airport Management*
- ➢ *Marketing*

5. Education/Training

- ➢ *Flight*
- ➢ *Maintenance*

> ➤ *Engineering*

> ➤ *Business Administration*

Based on the list provided by Ragan, the difference between the content areas for each category of aviation personnel is clear. The AVM falls in the category of aviation education and business management. Hence, the English course content for AVM trainees should include airline and airport operation management, logistics, human resource management, and aviation law subjects. Apart from the content, Ragan highlighted what needs to be done to decide which type of AE is appropriate for the target participants. This question can only be answered by going beyond the content to the situation to consider who is using the language, what activities unfold in which language plays a key role, and what purpose the language use is serving. AVM trainees must be trained to use the core language skills required in the context of the learned subjects besides learning to apply genre-specific vocabulary.

Based on the literature review presented above, it can be concluded that AE is a wide-angled term of ESP that has been proposed for the entire aviation community such as pilot, ATC, Engineers, Cabin Crew and other aviation personnel. Although the AE term existed some time ago, the literature is very scarce as it was not emphasized for the aviation community with similar needs and interests. However, after ICAO imposed the ELP requirement for pilots and ATCs to be operational, the narrow-angled ESP courses for pilots and ATC were developed and got high demand. Some course developers gave it the name of AE for Pilots, and some named it ELP for Pilots. Both titles can be used, but the course is an ESP course for Pilot. The English proficiency requirement has also resulted in the demand for ESP courses for other groups of aviation personnel shown in figure 2.1. Hence, if there is a need to develop an English course for the AVM trainees,

present English course evaluation and NA of AVM personnel needs to be carried out to design a narrow-angled ESP course for the AVM trainees.

Therefore, it is essential to note that AE was not explicitly designed for pilots and ATCs but is a term used to refer to the branch of ESP for the general use of the aviation community. Aviation English can be seen as a subdivision of ESP, of the same kind as business English (Lin et al., 2014). The term BE has been widely used in designing ESP courses for business personnel, business management purposes and professional communication. As stressed in chapter one, the AVM programme includes subjects to train trainees to develop and manage businesses. However, ESP emphasized the necessity to determine the type of English that the target users require before proposing the course content. Therefore, the next section will discuss BE's development history and concepts and review the existing literature.

2.5.2 Business English

The concept of Business English (BE) or Business Communication was developed to train non-native speakers to communicate in English when performing business activities locally and internationally. Globalisation offers the advantage for traders to spread their products, technology, and information to users around the globe. As a result, the trading or business transactions are not limited to the local market, however, they are available to people all around the globe regardless of their language or socio-political boundaries (Bhatia & Bremner, 2012). This condition resulted in the emergence of English for Business Purposes a branch of ESP, which is BE. Although most businesses transactions are currently performed online via computer-mediated communication, business operators still require English for internal and external communications.

Given the circumstances that most businesses are seeking international growth by going global, while the employers of these organisations choose to use English for their

organisation-wide communication, business students, particularly the non-native speakers, should be trained to communicate within multinational, multicultural, and multilingual organisations. Although BE learners need to understand the methods of using precision and business jargon, the use of vague language is necessary for developing a relationship in situations where clarity is required. This action would ensure that their professional image is not undermined (C. S. C. Chan, 2019). In maintaining business alliances and ensuring a smooth transition in transactions, the speakers must phrase their messages clearly and use specific business jargon and language functions. This approach could prevent losses and ensure that they maintain a good reputation in the market. Thus, the usage of BE is often associated with the idea of improving professionalism among speakers and learners.

Similar to AE, Business English is an area of ESP, with its course being conducted for specific reasons. The development of BE has brought a new light to ESP in terms of the importance of NA, course syllabus development, and material analysis. Similar to the development of other ESP courses, course designers or language teachers should first perform the NA for learners' needs, lacks, and wants. Even though the type of English needed could be determined only through NA, the type of learners could be pre-determined for BE. According to Ellis and Johnson (2002):

…..*"Business English differs from other varieties of ESP in that it is often a mix of specific content (relating to a particular job area or industry), and general content (relating to general ability to communicate more effectively, especially in the business situations"*.

Source: Teaching Business English. Ellis & Johnson(1994),https://books.google.com.my/books

Business English is an ESP course that can be useful for students who are learning about business management-related subjects, such as Business Management, Finance, HR, and accounting programme students. To illustrate this point, the content of BE

focuses on studying the usage of business terminologies, language phrases and functions, and writing business documentation, including reports, minutes, and proposals. Nevertheless, conducting NA before proposing BE for the target learners is vital to investigate the norm practices in the learners' future workplace. The NA findings could also be incorporated into the training. Bhatia and Bremner (2012) emphasised that although English is the lingua franca for most business transactions, the type of English that should be used, whether it is British, American, or Australian remains a debate. Besides differences between the accents and slang terms of these native norms, culture and working etiquettes may influence the training in terms of speaking and writing. The majority of BE training adopt the multi-norm to provide students with exposure to communication in local and multinational contexts.

In teaching BE, the most important approach is to provide the learners with simulation-based practice to understand the language functions used by different people in communication. This approach is needed upon investigating a problem, exchanging information, or writing business documentation. In an analysis conducted by Millot (2017) on writing professional emails, it was found that the objectives of designing a BE course varied according to the needs of the communication scope for professional business experts. Moreover, the complexity of the BE course varied according to the learners' needs, their perception of the use of BE and its content, and the context for their use of BE. For instance, the BE for marketing personnel is different from the BE for a retailer who needs to send emails to his suppliers.

As previously mentioned, BE has emerged for a certain period, which leads to the abundance of BE textbooks that EL teachers could choose from to teach BE. This situation is attributed to the requirement for the usage of BE, while the users often refer to BE textbooks that are readily available in the market. However, given the evolution of business management, EL lecturers must use BE materials that are current in the field and

cater to the needs of the learners. To illustrate, business communication evolves over time and technology advancement. Additionally, emails have replaced letters and WhatsApp has enabled the transmission of messages or information to a mass group within minutes. The teaching of spoken or written discourse in BE should incorporate the latest communication tools.

The companies demand the employees to gain an advanced level for communication with supervisors, clients, subordinates, suppliers, and contractors, and link companies from other countries. It has been suggested that English language courses for engineering students should be taken into account in real-workplace situations. Wu (2013) highlighted the common drawbacks that should be considered in the use of BE for workplace communication, lack of comprehensibility, culture differences, and stereotyped associations with a particular accent in English.

Comprehensibility refers to the interpretation of the message by the decoder, whether it is based on the sender intention or his understanding. Studies demonstrated that the lack of comprehensibility often occurred when the participants involved in the BE communication exhibited poor grammar knowledge and a shortage of BE terminologies and vocabulary. The most severe accident in aviation history was caused by the lack of comprehensibility in a BELF situation, which resulted in the crash between two Boeing 747 Jumbo Jets in Tenerife in 1977. The flight captain, who was a Dutch, told the ATC "we are now at take-off" when the aircraft was already taken off. However, the ATC interpreted the condition as the pilot being at the take-off position. In this case, what the Dutch captain should have said was "we are now at take-off position" and waited for the clearance from the ATC. Not only the phrase used by the Dutch Captain was inappropriate and not in line with the standard, but it also caused a catastrophic accident. Following this accident, ICAO made it compulsory for pilots and ATCs in all states to use AE in routine situations and plain English in non-routine situations.

Business English for communication is often used especially by non-native speakers of English. To illustrate this point, non-native speakers do not frequently converse in English unless they are communicating with participants from other backgrounds or countries becomes a necessity. In this case, they learn BE to ease the process when communicating about business matters. However, the communication pattern may be different as the non-native speakers' communication skills will be influenced by their first language and culture. According to Lewis (1999):

..'*UK business people use humour, understatement, vagueness and a lot of small talk, whereas Americans speak clearly and directly, and they 'put their cards on the table immediately' with the sole purpose of doing business as soon as possible. While the people from Finland "say only that which is absolutely necessary" and when something is considered unclear by their counterparts, they "repeat it in summarised form", the Italians "deliver their proposals at length" (Lewis 1999, 14) and in case of miscomprehension "may launch into a half an hour clarification of the original proposal'.*

Source: Gajšt, N. (2014). Business English as a Lingua Franca – A Cross-Cultural Perspective of Teaching English for Business Purposes. ELOPE: English Language Overseas Perspectives and Enquiries, 11(2)

In the present time, business communication may involve people from other cultures compared to those quoted by Lewis. Therefore, the individuals who conduct business and employ BE should be aware of the cultural differences in the communication to avoid miscommunication. In a multilingual organisation where workers from different nationalities and cultural backgrounds are present, it is frequently observed that the employees often use English to communicate. However, it may not be the same case for the employees' conversation style (Rogerson-Revell, 2007). While BE involves the English language, the speakers tend to interact based on the adopted slang or accents, such as American, British, or Australian. This situation is the impact of stereotyping with a particular accent.

When people use BE with an accent, they become more empowered compared to other employees who are less proficient in English or not required to use BE (Lonsmann &

Mellish, 2017). Despite the scarcity of studies to prove this condition, it is common to observe that individuals with good English proficiency or slangs are more outspoken. Lonsmann's study listed several characteristics of people who were less self-assured in English, aged above 40, held senior positions, and were reserved in meetings and seminars. These attributes were possibly associated with the need to use workplace languages, such as technical English. Besides, the personnel perceived that they were not well-versed to communicate using technical or business terminologies. This condition could lead to a communication barrier between the company leadership and employees.

Apart from the issues discussed above, teaching BE is often a challenge for some EL educators. The BE aims to enable students to develop workplace communication skills among business executives. However, less exposure and no work experience may pose a challenge in serving in complicated business contexts and using creative language as these conditions may require more than standardised phrases and jargon (Chan, 2017). Although students may obtain some exposure during the practical placement, the level of BE that they may be exposed to is sufficient for entry-level positions. Hence, most graduates are faced with difficulties in communicating during the interview or their probationary period. Based on the literature presented on AE and BE, following are some of the conclusions that can be drawn.

Table 2.3: Aviation English versus Business English

Aviation English	*Business English*
Course context is standardised for a specific group of learners e.g., pilots, ATCs, engineers (Breul, 2013).	Course context may vary according to the level of professional communication needs; fresh recruit language needs may be different from senior executive and management of director's language needs (Chan, 2017)
Comprises discipline-specific jargon and terminology standardised phrases. Language use must be clear and precise (Breul,2013).	Solely emphasising the use of business terminologies and standardised business phrases, which may not be useful for the individuals working in other departments (Milliot,2017).
Jargon and terminologies pronunciation are standardised regardless of their use	The speakers tend to interact in accordance with the slangs or accents

for local, multinational, or multicultural organisation (ICAO,2008)	they adopt such as American, British, or Australian slang (Lewis 1999; Bhatia & Bremner,2012).
Course content, delivery, and assessment can be designed to mirror the actual workplace tasks. (Trippe & Baese-Berk, 2019)	The course objectives may vary according to workplace needs and students may face difficulty to develop the desired professional communication skills unless if they have worked and experienced the situations (Chan,2017)

The table above presents a brief overview of the AE and BE courses. The synopsis on the AE course is generalised for all existing AE and BE courses. While the BE course could be taught to the learners from the business, the level of learners should be identified beforehand. The AE courses are specific to the job scope of the aviation personnel and can be designed based on local contexts, however, the BE course is commonly meant for international communication. The analysis of the existing AE and BE courses suggested that both courses might be complex for AVM trainees as they should learn these courses in isolation and not relate to them for the job purpose. Through this analysis, the need to obtain the AVM personnel's view on whether one of these courses is suitable or vice versa was indicated. Overall, this case demonstrates that a specific English course must be designed to address the language needs of the AVM trainees.

The AVM programme comprises several business management courses, including aviation economics, aviation marketing, airline engineering management, human resource management in aviation, and several other management courses. These courses are specifically designed by integrating the business management knowledge in the aviation contexts by SMEs, which have gained experience working in the aviation entities. Similarly, all three aspects including English language rules, aviation discourse, jargon, business ethics, and genre can be combined to design an ESP course for the AVM trainees.

The description of the AVM personnel job scope, which has been discussed in Chapter One, does not seem to be relate to the job scope of other aviation personnel as discussed

in 2.5.1. Thus, its is important to determine the AVM trainees communication needs. The first objective of the research is to investigate AVM trainees' needs for English for oral and written communication. Provided that an ESP-based curriculum was proposed in this study for the AVM trainees, the participants expressed their opinions on the topics they would like to add to the proposed curriculum to achieve a promising performance and overcome the weaknesses among the AVM personnel through this survey. The findings were expected to provide several guides to design a specific English course for the AVM trainees. However, information gathering and analysis of the English oral and written needs should be performed based on the structured enquiry process or methodology. To gather information from stakeholders, the needs analysis (NA) approach was considered in this study. The following section discusses NA in detail.

2.6 Needs Analysis of AVM Trainees Language Needs

Following the suggestion in "needs analysis", ESP allows learners or employees to improve their proficiency and enhance their communication skills using detailed research of English language skill required by learners. The term NA was initially encapsulated by Hutchinson and Waters in 1987 with the statement "tell me what you *need* English for, and I will tell you the English that you *need*". As previously explained, the ESP course is designed based on a specific job or service requirement. Similar to any specialised job skills, the requirement for English proficiency among fresh recruits varies according to the field or discipline. Medical practitioners, for instance, could be differentiated based on the job scope including doctors, surgeons, aestheticians, nurse, or pharmacist. Given that the job scope associated with these professions requires different communication purpose, differences are present in their English language needs. The oral and written needs of the personnel may vary according to the contexts and other factors.

In ESP, the need to communicate in English could be defined based on the needs, functions, and pragmatics of the discipline (Belcher, 2010; Hutchinson and Waters,

1987). Furthermore, the ESP courses could not be designed unless the specific learners' needs and language aspects or discourse of the discipline are not known. However, these needs could only be identified through detailed investigation or analysis of the proficiency required for the workplace. Flowerdew (2012) stated that for an ESP course curriculum design, the important stages are needs analysis, curriculum design, materials selection, methodology, assessment, and evaluation. The needs identified through the NA stage are used to gather the information that would be useful for other stages of the ESP approach.

It is necessary to note that the needs of learners vary when learning a second or a foreign language. International or foreign trainees and those who require learning a language for occupational or vocational motivation have distinct purposes for learning English. Each group acquires English for different registers, skills, genres and lexicons. Albassri cited (2016) Long (2005) explanation, "*just as no medical intervention would be prescribed before a thorough diagnosis of what ails the patient, so too a language teaching program, which should not be designed without a thorough needs analysis*". NA, when employed correctly, is helpful to enable ESP researchers to determine target learners' needs and highlight the critical aspects of language skills to the teachers. Even though the approaches of conducting the NA may vary, the EL or ESP teachers should be aware of the purpose and expected results from the analysis.

The main objective of employing NA is to determine the AVM trainees' needs for learning English. In fact, even when the ICAO attempted to propose the proficiency requirement, several tests were performed. These tests involved the investigation of the distinctive interactional language features of radiotelephony and testing second language users' skills, especially in recurring air understanding pilot readbacks and checking, confirming, or clarifying information when necessary. The stakeholders in AVM include the airline, airport, logistics operators, ground handlers, catering company,

manufacturers, an aerospace company, M.R.O operators, government agency, trainees, and educators.

Kim (2013) explained that before designing an ESP course, teachers or course designers should understand what the stakeholders require of the trainees as prospective workers and the requirements by the professors for their students to meet the goal of each programme and increase the students' motivation to learn in the English class. This condition may comprise the types of topics, activities, and materials that should be used for teaching the trainees. When this information is obtained from the NA, the EL lecturer or teacher could initiate a discussion with SME or representatives from the industry on sourcing the actual materials that will be adapted as teaching materials (Roberts et al., 2019). This approach ensures that the curriculum is comprehensive and learners experience as much TLU as required.

Several ESP researchers have explained the models and methods of gathering information on learners' or participants' needs to learn English. However, as stated by (Gusti et al., 1999), the literature of these studies should be reviewed and selected on the basis of contexts and conditions of teaching and learning. This study focused on Robinson's (1991) suggestions, which stated that learners' needs could be identified through Target Situation Analysis (TSA) and Present Situation Analysis (PSA) simultaneously. Specifically, TSA refers to what learners are required to do with the foreign or second language in the target situation. On the other hand, PSA draws attention to the gap between what students could do with language at the beginning of the course and what are they required to do at the end of the course. Thus, needs analysis may be seen as a combination of TSA and PSA.

Hutchinson and Waters (1987) defined target needs as the necessities, wants, and lacks that need to be investigated. Necessities encompass what learners or students should know to manage the oral and written exchange of thoughts and suggestions efficiently in

a target situation. Meanwhile, lacks involve the gap between what the students or learners have known and the parts that they are lacking, which require more focus. Following that, wants refer to what the trainees want to learn. Needs analysis for the present study considered these two complementary approaches while placing more focus on TSA compared to PSA. The following subsections will discuss TSA and PSA and their applications in this study.

2.6.1 Target Situation Analysis

In designing an ESP course, it is important to be aware that the needs analysis process comprises several purposes. However, it mainly aims to determine learners' needs, which could be academic or professional. According to Dudley-Evans and St John (1998), TSA is concerned with professional information about the tasks and activities for which learners would use English. It is performed with a focus on the target situation, where learners are required to show better performance and analyse specific features of language use.

According to Munby (1978), TSA aims to inform the course designers and EL teachers regarding the desired or minimum level of proficiency and competency for acceptance into the industry. In some cases, the TSA results may be different from the EL teacher's expectation. Therefore, despite the strong reason for considering the language needs of AVM trainees in designing an English course, this outcome is possible only after the TSA results are known. In this study, TSA was opted due to the absence of studies performed in the early stage about AVM personnel language needs and the scarcity of literature works to support the need for a specific English course for the AVM trainees (Hutchinson & Waters, 1987). Notably, TSA allows this study to explore and address the specific needs of the trainees in learning English.

The term TSA explains that the analysis is necessary to determine the minimum level of English proficiency expected of the trainees through the assessment of their language skills (Long, 2005; Hiranburana, 2017). It is also the backbone of ESP research because it provides the core information that researchers need to know about the participant or learners before exploring further on the desires, wants, and other aspects. For example, before designing an ESP course for AVM trainees, it is important to investigate the trainees' future job scope beforehand, which may vary according to contexts or situations apart from learners' current connection with the aviation industry.

The literature presented above emphasised that the language needs for AVM personnel are yet to be investigated. Therefore, TSA is the best approach to investigate the English language needs among AVM trainees by consulting and engaging with the AVM personnel. In Lee's (2015) study on designing ESP course for airline service employees including check-in staff, it was highlighted that language needs, including what and how future employees or trainees were expected to know and perform in the target situations, were identified by the airline managers under the guidance of airline customer service principles. With TSA, researchers were able to gather first-hand information of tasks personnel from the members of the field or the organisations required to perform.

Besides understanding the tasks and activities, TSA aims to explore the types of situations, the context the participants are working in (local or international), the demographics of the workers including nationality, their background in English, and other aspects that might be used in the study (West, 1994; Hyland, 2006; Basturkmen, 2010; Fahad & Alfehaid, 2011). The uniqueness of ESP courses compared to other ELT approaches is due to the inclusion of learning to comprehend jargon, terminologies, and language structures exclusive to the field. Moreover, TSA enables researchers or teachers to explore the materials and examine the language and discourse of the community in communicative events.

According to Hyland (2006) and Hakim (2013), the results of the TSA could help course designers or ESP teachers to understand what trainees need to function in the target language by the end of the course. However, the 'needs' should be aligned with the expectations or goals set by the institution. Through this action, the course designer or ESP teacher can set the target outcome of the ESP course. Hakim proposed the following questions in his study on designing ESP course in the Bangladeshi context.

- *What tasks do the learners need to be able to function by the end of the course?*

- *Why is it important for them to perform these tasks in English?*

- *Why do learners want or need to learn these skills?*

Source: Hakim (2013), Designing an ESP Course in a Bangladeshi
Context: A Timely Need, http://www.esp-world

These questions are specific to the objective of conducting the TSA. As previously mentioned, TSA examines the language needs of the target field or job. It could also investigate the level of proficiency accepted for the job and the minimum level required for competency by the industry personnel.

Based on the literature review on TSA, it is undeniable that the analysis is the initial step, especially when designing a course for a target group. Thus, the TSA was employed to determine who, what, why and how English is communicated in the AVM workplace.

2.6.2 Present Situation Analysis

Present Situation Analysis or PSA is another method of conducting NA. Munby (1978) argued that PSA represents the constraints on the TSA, given that PSA is the consequent analysis that needs to be performed based on findings regarding TSA. PSA is set to determine students' ability at the start of their language course and investigate their strengths, weaknesses, and skills in the language. Robinson (1991) stated that PSA aims to identify the information about the learners, which is mainly related to their language

proficiency. Through this action, researchers will be able to know about the type of lessons, activities, and assessments being used in the present course, including the learners' opinions about the present course (Hakim, 2013).

This study employed the same method suggested by Liao (2016), who stated in his study that employing TSA alone is not sufficient to explore the learners' needs. Furthermore, provided that TSA could not be performed in isolation, PSA was conducted to gauge students' level of language use and the gap between the present and target needs. Liao further elaborated that by employing both methods, the researcher will be able to decide the direction of the study and whether there is a need for a new course design.

PSA is related to learners' current skills and learning approaches, such as the learning materials used and assessments. It could be used to analyse the inadequacy in the present curriculum content and assessment method. Therefore, this study applied the PSA method to determine the inadequacy in the current syllabus by comparing it with the TSA findings. The PSA method would determine the language use and language skills of AVM trainees, which require assessment.

This study adopted an integrated approach that combines target situation analysis and present situation analysis. For the TSA, AVM personnel and alumni (former students of the programme) were consulted to determine the receptive and productive skills that trainees should demonstrate and the language-related activities performed by AVM personnel in diverse workplace environments. The TSA aims to determine the minimum level of language ability expected by employers upon the completion of the ESP curriculum. Alternatively, the objective of the PSA is to investigate the gaps between what is known by the students and what they are expected to know about the job scope in the aviation management field. The PSA will also evaluate the course materials and authentic materials. These findings will be used to design an ESP syllabus and assessment

that employers will adopt when considering AVM trainees for acceptance into the workplace.

This section has thoroughly discussed the importance of conducting NA in determining the AVM trainees' English proficiency and communicative needs, specifically by combining the TSA and PSA approaches. Both the TSA and PSA approaches complement one another, providing the researcher with an idea of the syllabus and assessment design. As discussed in the earlier section, syllabus and assessment design are among the core elements leading to ESP uniqueness. The following section will discuss syllabus design further.

2.6.3 ADDIE Model

ADDIE model is an instructional design which employs process- based approach to develop instructional materials. The term ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation. These are the crucial stages in conducting NA of learners needs and lacks.

Some studies have investigated the implementation of needs analysis and the ADDIE model in developing specifically the language teaching material. Aldoobie (2015) has made a review of the ADDIE model in developing an instructional design. He states that the analysis stage in the ADDIE model is the most important phase in the process in which 'really save a huge amount of courses, effort, and time'.In their study, Wang and Hsu (2016) stated that as an instructional design, ADDIE model was adopted so that learners would improve their knowledge and skills. As language teaching contains of a set of instructional materials, materials developers should determine the phases of producing or developing the materials. Peterson (2003) proclaims that adopting ADDIE model in a course is beneficial as it is more learner-centred rather than teacher- centred. From the very beginning of its stages (analysis and design), learners who will take the course are

highly considered. Implementing the ADDIE model is easy and common in developing teaching material, and this model is recommended by researchers (Cahyadi, 2019, Misesani et al., 2020) because it helps the scholars to frame how they approached the course redesign process with goals of increased student engagement.

The ADDIE model was used in this study to gain insight on investigating the trainees' needs, designing the ESP syllabus, developing of the sample materials and assessments and evaluation of the proposed syllabus, materials and assessment rubrics or criteria.

2.7 ESP based Syllabus Design

Syllabus design is a highly important phase in the development of a course. Although the term syllabus design is generally concerned with addressing the objectives of proposing a course, it also has to ensure that learners could grasp and apply the knowledge that has been specified in the syllabus. Although syllabus and curriculum often become the focus in ESP based syllabus design, both aspects are important in the development of a course. According to Nunan (1988), developing a curriculum involves designing, executing, assessing, and administering the language programmes, whereas 'syllabus' design aims to manage the content and resources that will be used in the course. In ELT, stakeholders need to ensure that the syllabus design is performed carefully as it constitutes the course design process. Lin et al. (2014) highlighted that the EL teachers require support in the form of curriculum models, including support from the companies that trainees will be working for in the future. The following issues were highlighted by Nunan (1987) in the design of the ESP curriculum:

1) Improving the ability to communicate with the sector of work
2) Balancing the absorption of the content, language, and the general language
3) Designing appropriate material for groups of students of the same type and different type.
4) Developing materials

The following issues are the challenges faced in ESP syllabus design:

1. *Ineffective communication and discussion between ESP teachers and industry stakeholders*

2. *Prospective ESP students' low or mixed English proficiency levels*

3. *Inadequate teaching materials and facilities*

4. *Limited number of qualified teaching staff*

5. *Prospective ESP teachers' qualifications and competencies*

6. *Prospective ESP teachers' lack of motivation*

The involvement of the SME or stakeholders has a significant impact on ESP syllabus design. Serafini et al. (2015) advocated the importance of involving stakeholders from various sources inside and outside the institution (prospective employers) to offer richer insights into the learners' target needs and challenges and improve the data's accuracy and reliability. However, this may be a challenge if stakeholders are unwilling to participate or have limited knowledge of the communication needs. Besides the cooperation from the stakeholders and SME, the target learners poor proficiency level is a critical issue in ESP syllabus design. ESP syllabus is designed to train the learners or trainees to use the type of English required for the work purpose. However, the ESP teachers must consider the learners' language proficiency and competencies when designing the syllabus. Besides that, issues concerning limited teaching staff, ESP teachers' qualifications, and motivation are issues that cause unfavourable effects on the syllabus design. One of the

reasons this happens is because not all EL teachers are ESP teachers. Novice ESP teachers need to make an effort and learn the fundamentals of the subject matter relevant to the ESP variety they want to teach (Jendrych, 2013). However, the task gets more complicated if the stakeholders or SME are not willing to cooperate with the ESP teachers in giving ideas on the syllabus and course content. In some instances, the teachers may misunderstand their role and take over the SME task instead of teaching ESP.

Managing the issues in curriculum design and syllabus design is a highly important phase in ESP course development. The curriculum design will be useless if the issues of the syllabus design are not addressed. Therefore, it is essential to manage the curriculum and syllabus design to achieve the objective of ESP course design. In a study performed by Chovancová (2014) on developing the course of English for Legal Purposes (ELP), it was emphasised that despite the production of many textbooks, the content of these textbooks is highly general, with context being more intended for first language speakers and not localised. The challenge increases when the ESP teacher is required to know how to incorporate the textbook topics to explain the syllabus. Therefore, the syllabus designer should reflect the students' target situations. Language teachers frequently assume that learners' needs can be concluded based on their general proficiency level. However, course designers and ESP teachers must provide the learners or trainees with the experience of using the target language while teaching the important language aspect and functions (Hamed et al., 2014). The ESP syllabus design highlights how language teachers incorporate the learning needs and contexts of where learners will use English in the area of specialisation or future jobs.

In designing the syllabus and selecting the material, Chostelidou (2011) stated that "curriculum renewal or reform is most often introduced to realise expectations in terms of its potential to enhance the performance of students as a result of the shift in focus, the change of goals, content, and teaching materials and methods". Given that this study aims

to propose a new curriculum for AVM trainees, it is vital to ensure that the syllabus is well researched and designed. Brown (1995) classifies syllabus into structural, situational, topical, functional, skill-based and task-based. These syllabi can be linked to specific teaching approaches and methods.

1. *Structural Syllabus* – is based on a theory of language which assumes that the grammatical or structural aspects of language forms are the most basic or useful items in learning languages. The structural syllabus has some shortcomings. Firstly the vocabularies are taught separately from context. These words are terminologies or jargon used in the learners' field of specialization or work. These words are taught in a list of isolated lexicons. The subsequent weakness is that grammar is taught in rules. Learners are not taught how grammar is used in an utterance to express a social context. Also, this syllabus overemphasizes the teaching of grammar is through drilling exercises. The method is not suitable in ESP teaching and can make students feel bored or demotivated.

2. *Situational Syllabus* –In situational language teaching, structures are always taught within sentences, and vocabulary is chosen according to how well it enables sentences patterns to be taught. However, the shortcoming of the situational syllabus is that the different situations created in Situational Syllabi determine the language structures to be learnt. However, situations vary according to the context, workplace, country, and other factors. Therefore, the learners may or may not come across the conditions and may not find the syllabus helpful.

3. *Topical Syllabus* –this syllabus is built around specific topics and themes. The topic-based syllabi stimulate student interest in the theme and develop the student's ability to manipulate the language appropriate to the situation and use the theme's language. The themes may relate to the learners' discipline or profession or be general topics. Some examples of general themes are the internet, sports, travelling, culture, and others. However, the general themes may not be useful for the learners, and it does not address the objectives of ESP.

4. *Notional Functional Syllabus* - A notional-functional syllabus is based on the premise that communication is a meaningful behaviour in a social and cultural context that requires creative language use rather than synthetic sentence building. Grammatical structures are taught not as an end in themselves but as a means of carrying out communicative functions.

5. *Skill-based Syllabus* – this type of syllabus concerns how language is used as a specific skill. Learners will be taught only the specific skills related to the discipline such as writing specific topic sentences or writing memos, reports; speaking skills of giving instructions, making small talk; and listening skills such as getting particular information, listening to foreign radio for news, telephone conversation and so on. This type of syllabus is focused on training learners to develop specific skills, but teaching the language skills alone may not be sufficient for the learners.

6. *Task -Based Syllabus* - Nunan (1988) suggests that a syllabus might specify two types of tasks: real-world tasks or communication tasks Pedagogical tasks. Real tasks such as writing to suppliers or speaking in a virtual meeting could be considered a pedagogical task. In carrying out pedagogical tasks, learners will be given drilling exercises using authentic materials and situations. The advantage of this syllabus is learners will get more exposure and practice managing the real workplace communication tasks.

Based on the literature review on the history of ESP development for aviation personnel, it was stressed that ESP emerged as the result of addressing the needs of people to use English to perform specific 'tasks' in their jobs. Similarly, this study proposed ESP to enable proficient use of English among AVM trainees to perform their future workplace 'tasks' efficiently. As such, this study will focus on task based syllabus design. The next part of this study will discuss the steps in developing the ESP based curriculum.

2.7.1 Task-Based Syllabus Design

As discussed in the earlier section, communication skills are undoubtedly the important criteria that most aviation organisations or employers look for when hiring workers or AVM trainee recruits. Although most organisations do not specify their requirements for job applicants to possess English proficiency, it could be generalised that most tasks are required to be conducted in English, considering that it is the lingua franca of the industry.

. Syllabus design based on tasks is the approach in communicative language teaching. Most ELT teachers will focus on grammar rules and aspects, including typical reading, writing, speaking, and listening practice when teaching English. This condition may benefit the individuals who wish to learn English as a second language or for basic communication. Furthermore, ESP is concerned with teaching English to learners or trainees with specific needs, such as coping with academic studies or learning English to perform reading tasks at the workplace. In this case, task-based activities such as listening to documentaries and reading authentic or workplace documents will be more beneficial to the trainees. Nunan (2001) suggested that course designers should perform NA to investigate the TLU of targeted learners instead of teaching grammar rules, which are the least needed or not relevant to the learners to communicate at the workplace.

Task-based learning has proven a popular method for many ESP courses, such as oral and written workplace communication requirements for fresh graduates (Attan et al., 2018; 2012), teaching reading comprehension to ESP learners (Bygate, 2016), legal English programmes (Northcott, 2012), and ESP courses for airport information desk staff (Liang, 2010). Task-based learning could assist learners by placing him/her in a situation equivalent to the real world, developing language through its use, and obtaining the focus of the learners towards achieving a goal where language becomes a tool and is applied by the learners.

Simin and Tavakoli (2015) highlighted that in preparing the trainees for future employment, EL teachers must design activities that replicate the workplace tasks, while the activities should have variation in terms of difficulty levels. Some tasks should be easy, while some other tasks should be challenging for the learners. Teachers should not merely replicate the tasks that learners will encounter at their future workplace, however, they must ensure that the tasks-based syllabus is realistic and interesting to ensure their understanding of the learning objectives and free interaction.

According to Mohammadzadeh et al. (2013), although TBLT exists in the Iranian EFL teaching contexts, teachers refrain from using task-based activities as their main focus is to improve learners' speaking skills. Given that this situation may arise as teachers tend to recreate the tasks without performing research, the task representation does not seem realistic to the students. Thus, teachers or course designers should ensure the balance between the language aspects and tasks representation in the syllabus design. Instead of taking over the tasks of the SMEs or subject lecturers, English teachers or lecturers should assist in enhancing the trainees' proficiency skills based on the tasks.

In ensuring that the task-based syllabus meets its purpose of enhancing trainees' ability to use English for performing job-related tasks, it is also necessary for syllabus designers or teachers to consult SMEs to seek their opinion on the inclusion of types of tasks as part of the syllabus. However, certain tasks may not seem appropriate as trainees will join the industry at the junior level, and they may not be required to perform these tasks. In some instances, the tasks included are not suitable as trainees might not have learned about the subject matter. Hence, it is essential to first identify all the tasks that AVM personnel are required to perform in English, which would determine the appropriateness of including the target tasks in the proposed syllabus. The stakeholders play an important role to determine the tasks that trainees need to perform, how are the tasks performed, and the minimum level of receptive and productive output expected of trainees. Also, the

comparison between the present and proposed syllabus content and course content materials are necessary to determine if the current training is sufficient or lacking. Upon gathering all information throught the TSA and PSA, it is also cruicual to check with the SMEs to determine when the inclusion of the tasks should take place: on the first, intermediate, or advanced level. Hence the TSA and PSA that was proposed for this study will be useful in the task-based syllabus design.

2.7.2 Critical Skills

In ESP, syllabus designers and teachers need to ensure that learners' are not only proficient in their communication or have knowledge about the tasks, but they must be able to use English in a professional manner to demonstrate the critical skills required for the job. According to Bhattacharyya (2018), graduates need to exhibit confidence in technical knowledge as well as other critical skill traits, which is essential for workplace communication. In dealing with future workplace situations, trainees are bound to face situations that require the critical skills.

Wu and Liao (2014) stressed that aviation managers constantly strive to streamline processes and increase the efficiency of the aviation companies. The AVM personnel must make professional aviation-oriented decisions and assessments that are likely to have immediate and long-term effects in the aviation operations workflows and on fellow industry professionals. Communication is essential in performing the critical skills. Therefore, the trainees must be introduced to the critical skills relevant to their workplace communication, such as decision-making, meeting, or negotiation skills. There have been several studies that have discussed the importance of critical skills. However, an interesting point was raised by World Health Organization(WHO) that stressed why critical skills are vital not only for the workplace but also serves as life skills education.

…..*"Skills are abilities. Hence, it should be possible to practise life skills as abilities. Self-esteem, sociability, and tolerance are not taught as abilities: rather, learning such*

qualities is facilitated by learning and practising life skills, such as self-awareness, problem-solving, critical thinking, and interpersonal skills."

<div align="right">Source: WHO (1999). Partners in life skills education:
Conclusions from a United Nations inter-agency meeting.</div>

In most educational programmes, two types of skills are expected of trainees: hands-on and soft skills. Specifically, hands-on skills allow the trainees to perform the job, while soft skills enable them to handle communication and clerical tasks. Although the term soft skill is more commonly used instead if critical skills, both these terms actually refer to the critical skills needed by the AVM trainees for their jobs as they could be incorporated into the curriculum. Therefore, the critical skill needs to be investigated. Interestingly, Ketabi, Zabihi, and Ghadiri (2012) highlighted that EL communication teachers are responsible for shaping the learners by developing their interpersonal skills, enhancing their critical skills, and encouraging learners to be professionals in their profession or career. Notably, developing AVM trainees' critical skills is necessary as it is part of an individual's interpersonal skills. This action includes keeping on track with the 21st-century critical skills and learning requirement, which highlights the importance of incorporating critical skills such as critical thinking, negotiation, problem-solving, and other skills in ELT.

In a study conducted by Ketabi et al. (2012) in Iran, it was highlighted that despite the need to relate language learning with current real-life skills, it was found that English language teachers and learners remained behind on the importance of critical thinking. Besides critical thinking, several critical skills are vital for learners and should be considered in the syllabus designing stage, such as problem-solving, negotiation, and meeting skills. As proposed by the World Health Organisation (WHO), the EL teachers play an important role in developing learners' critical skills by including activities related to critical thinking, creative thinking, problem-solving, and decision making in the curriculum.

Vahdani Sanavi and Tarighat (2014) performed another study involving Iranian learners by investigating the impact of including critical thinking skills topics in teaching speaking proficiency. Vahdani Sanavi and Tarighat reported that instead of teaching students how to think critically, English language teachers should provide activities for students, such as workplace situations. While the teachers take the role of the facilitator, they should assist students in using their critical skills to manage the situations. By including critical skills as parts of the syllabus, the English teachers could ensure that the lessons are more interactive and expedite the process of learning. Students or trainees will be able to apply different jargon, terminologies, and language functions while demonstrating their critical skills.

The partnership for 21st-century skills (P21) (2009), which is a national organisation that spreads awareness about the importance of skills, proposed eleven critical needs for individuals to be successful (Menggo, Suastra, Budiarsa, & Padmadewi, 2019; Tan, Choo, Kang, & Liem, 2017; Trilling & Fadel, 2009). The skills identified are communication and collaboration, critical thinking and problem solving, creativity and innovation, information literacy, media literacy, ICT literacy, flexibility and adaptability, initiative and self-direction, social and cross-cultural, productivity and accountability, and leadership and responsibility. The list of skills was suggested to be included in educational programmes to ensure that students are more prepared to face the working world and for the learning process to be more meaningful.

Based on Andrade's (2016) research on the circular elements that are essential for learners' success, it was argued that in designing an ESP-based syllabus, course designers and language teachers have to determine the most effective learning experiences and learning contexts for the students. To conclude the investigation on the learning outcomes, which were required for the 21st-century global world, Andrade proposed critical thinking, problem-solving, written and oral communication, collaboration,

information literacy, and other global competencies. Similarly, Menggo, Suastra, Budiarsa, and Padmadewi (2019) emphasised on the 21st-century skill required by graduates. Menggo et al. (2019) stressed that the NA in developing academic-English speaking material is essential by incorporating critical approaches, such as the problem-solving and decision-making, including methods of working such as communication and collaboration, information literacy, and other global competencies.

Taking into account the previously discussed 21st-century skills and the research on the inclusion of critical thinking skills for enhancing academic skills, this study aims to investigate the important critical skills among AVM trainees. This present research investigated the trend skills required for AVM personnel to perform their specific job scope. The proficiency of these skills is a warranty for trainees to be able to access worldwide opportunities.

2.7.3 Communication Context

In recent years, due to increasing attention to the sociocultural contexts of learning, ESP researchers and practitioners have begun to advocate bringing into focus learners' identity, , to further ESP's needs-responsive practice (Belcher, 2012). The scope of using NA is ESP, as Belcher and Lukkarila (2011) is to determine "*not just what learners want to be able to do in a language but also who they want to become through language*". Therefore, prior to proposing the ESP curriculum design, it is essential to determine the different contexts that English is being used at the workplace. A primary function of using English as a medium for communication at the workplace is to convey work-related information or request services in various situations. In AVM, the examples of relating events can be more complex such as delivering press conference talks, marketing and negotiations with clients and passengers, and conducting interviews. Different contexts require different kinds of vocabulary and other expressions that are suitable to that

particular context (Armstrong & Ferguson, 2010). Communication occurs all the time, but how the speaker communicates may change based on who they are with, the types of events that are happening around the speakers, their opinions and beliefs, and where they are. This close relationship between language use and context is essential for EL teachers in guiding their course content decision-making. Course designers need to determine what types of language samples they need to obtain to assess trainees and what everyday situations will be most relevant and productive to focus on in teaching the ESP course.

As cited in Van Dijk, (2015), Dell Hymes (1972) was the first scholar who proposed a theory of context. Hymes pointed out that context can be described based on the SPEAKING grid shown below:

> *Setting/Scene: time, place, physical circumstances;*
>
> *Participants: speakers and hearers of different identities or categories;*
>
> *Ends: goals and purposes of a communicative event;*
>
> *Act sequence: format and order of parts of the communicative event;*
>
> *Key: tone, manner or spirit of a communicative act (e.g., as ironical);*
>
> *Instrumentalities: forms and styles of speech (e.g., more formal or colloquial);*
>
> *Norms: social rules or norms governing the event (e.g., who may speak to whom);*
>
> *Genre: the kind or type of communicative event (e.g., a conversation, a story, or a*
>
> > *political debate).*

Source: Van Dijk, T. A. (2015). Context in the language sciences.

According to Hymes, context are rather heterogeneous. They may be physical context (speech situation; such as at the cafeteria), social (speech events: such as meetings) and cognitive. Speech events occur within speech situations, so for example, the exchange of vows is a speech event occurring within a wedding (a speech situation)(Johnstone & Marcellino, 2010). The interpretation of speech acts is equally (at times more) dependent upon participants' social status and relationship.

Halliday and Hasan, (1985) too proposed the concept of "contextual configuration". Contextual configuration involves studying the interactions that take place in real situations. Halliday and Hasan pointed out that these interactions can describe the context in terms of the three notions of field, tenor, and mode roughly corresponding with the subject matter, participants (and their relations and purposes), and the Channel (spoken or written) of discourse. Field refers to the general nature of what is happening and the content, which can also refer to the physical context. On the other hand, Tenor refers to who is taking part in the interaction and the relationship between participants, the social context. Mode refers to the role the language is playing (e.g., oral, written, face-to-face, telephone) Halliday & Hasan, 1985).

Example of a Contextual Configuration

Field: Talking about stroke (familiar), in clinic (setting)
Tenor: Talking with clinician (less familiar), clinician-patient relationship
Mode: Formal register, interview, spoken with visual, language constitutes exchange

Source: Armstrong, E., & Ferguson, A. (2010). Language,meaning context, and functional communication. Aphasiology, 24(4), 480–496.

Both Hymes and Halliday and Hassan's concept of context has some similarities since both categorize communication mainly into physical and social contexts.

Physical context is about being in the actual setting like the physical location, the time of day, the noise level, the weather. In order for an individual to become an effective communicator, a person must learn what type of statements are acceptable in specific ecological conditions. The physical context helps the speaker to differentiate which messages are appropriate in different environments.

Social context is the balance between people's emotional states and personal relationships. A crucial facet of the social context is the status relationships between personnel working in an organization. The social context means that the speaker changes the way they communicate according to the proclaimed status of the person they are engaging with in the event, such as meeting or interview.

Course designers or EL teachers can target specific aspects of language use for assessment and treatment by studying the context of communication. In this study, it is necessary to determine the types of physical and social contexts in which the AVM personnel's communication frequently occurs and the functions of English in these contexts.

2.7.4 Development of Teaching Material

Basturkmen and Bocanegra-Valle (2018) argued that although many ESP teachers have written and published ESP books including ESP for pilots, human resources, or tourist guides, the content of these textbooks may not be completely suitable for the learners. Textbook or workbook writers often produce books based on the general needs of learners, including English for business purpose or English for medical purpose. However, these books are designed specifically for native speakers of English and rarely cater to non-native learners' specific needs, which are based on the context of the study.

In NA, material development is the phase that occurs after syllabus design. NA findings will determine the respondents' view of the content of the current teaching materials, the target learners' needs that should be addressed by English teachers, and issues that should be taken into account in relation to material development. In Pinard's (2016) study on developing learning strategies to help learners in the acquisition of English outside the classroom, he emphasised that the goal of the materials developed in his study was to scaffold a process of engagement with the target language in the out-of-school environment. Similarly, all material writers should have the same objective when developing course materials or textbooks to examine the target language.

On developing ESP teaching materials, Martinez (2002) argued that authentic materials are not suitable for teaching purpose as the language for these documents is catered for native speakers. However, exposure to authentic materials in teaching appears

as the most ideal way to connect the non-native speakers of English to the workplace task requirement. In fact, in 1997, Nunan highlighted that the use of authentic documents or teaching materials, which are adapted from actual workplace documents, provides language input that is vital for the learners. Much ESP-based research works exploited authentic materials and real language functions in designing the teaching materials for the target learners.

2.7.5 Authentic Material vs Textbook

Generally, authentic materials usage in teaching provides the learners with the model of the language used in the subject. Whether it is for language teaching or teaching of theories and subjects related to the course, the teachers should introduce trainees to authentic materials of their fields to allow the practice of using the materials and language of the discipline among the trainees. According to Thornbury (2002), the relative frequency of a word used in spoken or written discourse is a key factor to determine its inclusion in a syllabus. It was claimed that the most frequent words express the most frequent meanings in the language. These words or written discourses were found in authentic materials or real-life situations faced by the personnel.

In ESP, although the focus is not entirely on improving the trainees' mastery of words, the trainees should be offered exposure and practice of using the discipline-specific terminologies or jargon in oral and written communication. The teachers' or course designers' efforts in proposing ESP for a specific field are aimed at helping learners function in academic, professional, or workplace settings. Therefore, Basturkmen (2006) highlighted that teachers need to consult AVM personnel or SMEs before preparing the course syllabus or while preparing the teaching materials. To illustrate this point, AVM personnel are the key informants of the type of English used, the basic concepts and technical details, and the knowledge and topics of learners' interest that the ESP teachers

can include as topics in the course. In deciding the course curriculum, content, and materials, teachers should ensure that "careful selection is made, and that the materials selected closely reflect the needs of the learners and the aims, methods, and values of the teaching program" (Mohammadi & Abdi, 2014; Cunningsworth, 1995).

Hamed et al. (2014) conducted a detailed investigation of researchers' opinion on the effect of using authentic materials in teaching. Based on the study findings, it was demonstrated that most researchers agreed that the use of authentic materials is necessary to enable learners to have a better grasp of the TLU. Although several researchers including Widdowson (1984, 2000), Ellis (1999), and Day (2003) were against the use of authentic materials due to the possible contents of complex words and structures, it remains the most suitable approach for teaching ESP curriculum to non-native speakers of English. The learners will be familiarised with the materials and understand how jargon, terminologies, and language functions are used in authentic texts. This situation will increase their motivation to improve their proficiency and communication skills.

Genhard (1996) classified authentic materials into the following three categories:

1. Authentic listening material such as radio news, cartoons, songs, etc.

2. Authentic visual materials, such as street signs, magazines and newspapers pictures, postcards, etc.

3. Authentic printed materials, such as reports, newspapers, restaurant menus, train tickets, etc.

Source: Hamed et al. (2014)

Currently, more examples of authentic materials, such as workplace documents, video documentaries, and social media posts are present. The categories of authentic text or materials described by Genhard were further explored and explained by Geta and Asso (2019). Authentic materials refer to socially prepared materials for social purposes, which also help bridge the actual classroom language in the language outside the classroom in

the real world. In describing authenticity, Geta and Asso cited Breen's description of authenticity.

Breen further elaborated that four types of authenticity are present, which are as follows:

i. *Authentic Text* refers to documents that are used in the workplace and exhibit the language in contexts. The example of authentic text is similar to the list proposed by Hamid.

ii. *Authenticity of Students* refers to how non-native speakers infer the audio recordings or decode information after listening to conversations or communication by native speakers.

iii. *Authenticity of Task* refers to the real types of tasks that are used to enable students to understand the purpose of the tasks in their future workplace.

iv. *Authenticity of the Classroom* is about setting up a classroom that is not similar to any other general classroom. The authentic classroom is the setting that gives the students the motivation to be a part of the language learning process.

Source: Geta and Asso (2019)

The different categories of authenticity listed above could be used as references to collect authentic materials for learners. Nevertheless, course designers or ESP teachers have to select them based on the relevant objectives, quality, and suitability, given that not all authentic materials, tasks, and classrooms are appropriate for the trainees. For instance, the authenticity of the classroom may vary according to profession or discipline, therefore should not be generalised. For instance, while AVM trainees may be required to learn about reading manuals in an ac simulator, if the lesson and tasks are not well planned or lacking in engagement, trainees will not be able to understand the purpose of the lesson. In this case, when the authenticity in designing classroom lesson, activities,

and locations is considered, its purpose should be known by the course designer or ESP teacher. Similarly, the authentic spoken discourse of pilot and ATCs may not be appropriate for teaching AVM trainees, provided that the vocabulary and language functions may vary.

Palmero (2003, as cited in Zohoorian Vahid Baghban and Ambigapathy, 2011) introduced different challenges that an ESP instructor may face in preparing and choosing materials for ESP learners, such as the authenticity, simulation of real situations, flexibility on the part of topics used, and relevance to the discipline that they aim to achieve.

Table 2.4: Authentic Reading Materials

Advantages	Disadvantages
"Real" language exposure with language change/variation are reflected	*Often too culturally biased, difficult to understand outside the language community*
Students are informed about what is happening in the world	*Vocabulary might not be relevant to the student's immediate needs*
Textbooks tend to not include incidental/improper English and become outdated at a fast rate	*Too many structures are mixed. Therefore, lower levels have problems decoding the texts*
The same piece of material can be used for different tasks	*Special preparation is necessary and can be time-consuming*
Ideal for teaching/practising mini-skills-skimming/ scanning	*Can become outdated easily, e.g., news stories, articles*
Contain a wide variety of text types, although language styles are not easily found in conventional teaching materials	
Encourage reading for pleasure possibly to contain topics of interest	

Source: Adopted from Berardo (2006), The Use of
Authentic Materials in the Teaching of Reading

As shown in Table 2.3, the advantages and disadvantages of authentic reading materials may influence the ESP teachers' decision to use them in teaching. In preparing course materials, teachers or course designers should attempt to verify the suitability of the authentic materials and real-life simulations, which are selected to be included as the course content, given that the degree of difficulty or technicality may vary according to

the personnel's level. Some of the most common documents associated with the aviation personnel are aircraft manuals, Annex, and reports, while the oral discourse in aviation communication is performed through Radio Telephony Frequency (RTF) communication. However, NA will help determine the materials and real-life simulation needed by AVM trainees. Therefore, the verification process needs to be conducted by the AVM personnel.

Even though EL may not be the SMEs of the discipline, several methodologies in ESP allow authentic materials and real-life simulations to be incorporated in the syllabus design, such as the method of co-teaching by language teachers and SMEs and the use of aviation dictionary in teaching and learning (Reshminder, 2011). The authentic materials and real-life simulations, which are appropriate for teaching the AVM trainees, can be compiled in the form of course notes for trainees' reference. Moreover, NA provides the researcher or syllabus designer with the opportunity to consider the use of authentic materials and the need to include these authentic sources in the ESP course for AVM trainees.

This research aims to identify the appropriateness of embedding authentic listening audios and reading materials in the English course for aviation management trainees. However, it is also necessary to investigate the appropriateness of the textbooks that are currently used by the AVM trainees. Notably, training or short courses are never complete without supplement materials or course notes as learners' reference. Supplementary materials are commonly customised specifically for training or short courses. Following that, course developers will conduct NA and decide the content of the materials based on the results to cater to the trainees' or clients' needs. The materials are practical, convenient, and can be easily modified according to the trainees' or participants' current needs. However, most teachers still use the traditional method to determine the supplementary materials for the trainees or learners. Similar to other EL teachers, the

AVM teachers resort to using commercial textbooks for teaching and learning as they are readily available. Besides, they assume that the textbook covers all aspects to be learnt by trainees. This situation possibly contributes to the extensive use of commercial textbooks in ELT. According to Hutchinson and Torres (1994) as cited in Mohammadi & Abdi (2014)

"The textbook is an almost universal element of teaching. Millions of copies are sold every year, and numerous aid projects have been set up to produce them in countries... No teaching-learning situation, it seems, is complete until it has its relevant textbook" (p. 315).

Source: Mohammadi, M., & Abdi, H. (2014). Textbook
Evaluation: A Case Study. Procedia - Social and
Behavioral Sciences, 98(1994), 1148–1155.

Textbooks are initially produced based on a specific syllabus set by the stakeholders, such as policymakers, examiners, and teachers. As stated by Hutchinson and Torres, the textbooks are produced exclusively in countries where ESP is in demand. However, today, textbooks are produced by masses and supplied across borders although the content is yet to be vetted by stakeholders. Moreover, its easily accessible means and high volume in production may ease teachers' job in teaching.

Non-authentic texts are especially designed for language learning purposes. Berardo (2006) stressed a highly important point that the language in non-authentic materials or textbooks is artificial and unvaried. The textbooks contain a series of "false-text indicators", with following as the examples:

> ➢ Perfectly formed sentences

> ➢ A question that uses grammatical structure and obtains full answer

> ➢ Repetition of structures

> ➢ Often does not "read" well.

Even though trainees should be taught the correct form of structures, the personnel may not use these language forms in the actual workplace scenario. For instance, while

the textbook may include a lesson on learning parts of speech, trainees need to learn about how to construct the different types of sentences by applying the correct grammar rules. Similarly, selecting a movie review activity to be included in the textbook would be beneficial for trainees if the movie focuses on the life story of a famous aviator as it will contain various expressions, language phrases, and vocabulary related to the trainees' field.

In selecting textbooks, ESP teachers should check the content to ensure that the reading and writing topics and activities replicate the actual workplace documents or are related to the trainees' field of specialisation. This condition would enable trainees to familiarise themselves with the documents before entering their workplace. However, the idea of adapting these authentic materials into commercial textbooks requires copyright permission from the owner of the materials, making it a challenge among textbook writers. Therefore, before selecting textbooks to teach a specific group of trainees or learners, ELT should first evaluate the advantages and disadvantages of commercial textbooks.

Table 2.5: Advantages and Disadvantages of Using Commercial Textbooks in Teaching

Use of Commercial Textbooks in Teaching	
Advantages	**Disadvantages**
- They provide structure and a syllabus for a programme. - They help standardise instruction. - They maintain quality. - They provide a variety of learning resources. - They are efficient. - They can provide effective language model and input. - They can train teachers. - They are visually appealing.	- They may contain inauthentic language. - They may distort the content. - They may not meet students' needs. - They can deskill teachers. - They are expensive.

Textbooks selected for teaching were evaluated based on some principles. Some of the salient criteria in the textbook selection are shown in Table 2.5. The list was adopted from

Richards and Renandya (2002), who summarised the idea of Crawford (1995) regarding effective teaching materials. The study discussed the advantages and disadvantages of using a commercial textbook for teaching AVM trainees. Although the number of advantages of using a textbook was higher compared to the disadvantages, the usefulness of the textbook could be determined by the target users or stakeholders. Therefore, the current textbook used by AVM trainees should be evaluated to determine if it covers the aspects highlighted in the NA findings.

In addition to the objective of RQ2, this study aims to investigate the appropriate materials that should be considered and the language functions, jargon/terminologies, and critical skills to be included in the English curriculum for aviation management trainees. Besides, RQ2 seeks to obtain AVM personnel's view of the current textbooks used and their view on adopting authentic materials as teaching materials.

2.8 Assessment

In most aviation organisations, the Human Resource (HR) team will have fierce competition in the war for talent. Most aviation organisations, such as airlines, perform their respective assessment mechanism to recruit candidates into the organisations, especially for crucial position including pilots, engineers, cabin crew, and AVM personnel. To illustrate this point, the organisations will invest in developing this personnel, making the selection of the right candidate crucial. Besides that, this personnel have an important role in ensuring the safety of the passengers. Pulakos (2005) mentioned that the assessment mechanism is performed based on job analysis. The term 'job analysis' is similar to NA. When the fresh recruit undergoes the recruitment process, they are tested on KSA. As previously discussed, the ability to communicate in English is a skill that employers look for in fresh recruits. Similarly, Robinson (1980) highlighted that when ESP seeks to equip the learners with the English language skills required to

communicate or efficiently perform their work-related tasks, the ideal ESP approach in teaching is task-based, and it should incorporate the KSA required of the discipline or profession (Khoshhal, Y., 2018).

In recruitment, prospective employers and programme administrators must collaborate to ensure the consensus between both parties to achieve the desired KSA expected of fresh recruits. Programme administrators should have awareness of the assessment methods used by the recruiters and trainees' need for simulations to prepare the trainees for assessments that are conducted by their future employers. However, this approach may seem practical if the ESP assessment is performed on learners' performance in workplace situations (Khoshhal, 2018).

Fahad and Alfehaid (2011) stated that this is necessary as it will provide trainees with the chance to experience real workplace scenarios. The examples of real-life tasks reported in ESP studies are mock job interviews, case meetings, report writing, and several task-based assessments. These types of tasks enable the language teacher or lecturer to gauge the trainees' ability to use discipline-specific terms, language functions, and discourse. The findings from the task-based assessments may suggest that trainees need to be assessed continuously throughout the course.

Tenedero, P. P. P., and Orias, B. L. (2016, as cited by Yuan, 2008) conducted continuous or ongoing assessments due to the idea that it encourages the teachers to understand students' learning styles and interest besides being able to modify the lessons and assessments in line with the students' background while developing learners' capacity for self-assessment. Provided that teachers need to understand that ESP is a specialised course, the focus is purely on developing and enhancing the trainees' proficiency and language skills. Subsequently, testing the trainees is crucial.

Hutchinson and Waters (1987) proposed a similar idea that it is necessary to assess the trainees, while the ESP-based assessment evaluates the trainees' performance in their use

of specific English to perform in situations related to the work scenario. They also proposed three different types of assessment: placement test, achievement test, and proficiency test. However, the suitability of conducting any one of the tests or ongoing assessments could be determined only by consulting the stakeholders. Although first, it is crucial to decide on the difference between assessment and testing in ESP. A test is a "product" that measures a particular behaviour or set of objectives. Meanwhile, assessment is seen as a procedure instead of a product. Assessment in ESP measures the students' language abilities and proficiency in using English for their academic studies and their target careers and provides a beneficial washback effect. Assessment of competencies is needed to succeed in the language target in the context in which it is used and the connections between language knowledge and content knowledge for specific purposes(Octaberlina & Asrifan, 2021). On the other hand, ESP testing is concerned with measuring specific English language uses among identified test takers. A test is used to examine learner's knowledge of something to determine what they have learned. It measures the level of skill or knowledge that has been reached.

Apart from determining the type of assessments, ESP is concerned with how trainees' proficiency will be tested. Language proficiency is assessed based on a validated rubric or scoring system. A descriptor or rubric elaborates the performance that is expected of the student based on specific criteria and the levels to differentiate the students' performance (Andrade, 2000; Arter and Chappuis, 2006). Kankaanranta, A. and Louhiala-Salminen, L. (2013) defined rubrics as a set of descriptors or criteria used to evaluate student work. This was followed by the explanation that rubrics are used by the teachers to design the assessment. Each assessment should include the assessment breakdown and more specific details on how students will be assessed based on the rubric. Meanwhile, the rubric functions as an evaluation guide of learners' proficiency level (Tenedero, P. P. P., and Orias, B. L., 2016). Rubrics have been analysed in several

different ways, with several characteristics of rubrics presented as follows (Brookhart, 2018).

Table 2.6: Characteristics of Assessment Rubrics

General versus Task-Specific		Analytic versus Holistic	
General	Task-Specific	Analytic	Holistic
General rubrics apply to a family of similar tasks. General rubrics can be shared with students and used for learning and grading. Task-specific rubric for characterisation essay might specify which pieces of textual evidence the student should locate.	Task-specific rubrics specify the specific facts, concepts, and/or procedures that students' responses to a task should contain	Analytic rubrics consider criteria one at a time, which means they are better for feedback to students.	Holistic criteria consider all the criteria simultaneously, requiring only one decision on one scale. Students will not receive any feedback Suitable for quick grading and less cognitively demanding.

The definition of the rubric criteria shown in the table was adopted from Brookhart's (2018) investigation that determined the criteria of effective rubrics used by higher education institutions. The understanding of the characteristics of rubrics was built to understand how test-makers decide on the development of rubrics for a proficiency course. The presentation of the table above was attributed to the terms used, namely general or task-specific and analytic or holistic. The rubrics describing the proficiency and language skills expected of the test takers are present, while learning should be planned based on the criteria addressed and levels expected in the rubric (Andrade, 2000; Arter and McTighe, 2001; Arter and Chappuis, 2006; Bell et al., 2013; Nordrum et al., 2013; Panadero and Jonsson, 2013; Brookhart, 2013, 2018).

The decision to adopt the ICAO Holistic descriptors for AVM trainees can only be determined by recording the AVM personnel's opinion. Most importantly, it is necessary

to determine the relevance and potential use of English proficiency tests from the hiring personnel's perspective. The AVM personnel need to tell if the ICAO ELP test is suitable or other internationally recognized test is more appropriate to assess trainees to meet the minimum level of receptive and productive skills expected. As specified in the previous section (Aviation English), the ICAO Holistic Descriptor rubrics is used to assess the aviation personnel such as pilots, ATCs, Engineers and technicians and ground crew. However, prior to interviewing the AVM personnel on the relevance of the proficiency test it is necessary to know more about the test. Following this, the ICAO ELP test will be briefly discussed in the next section.

2.8.1 ICAO English Language Proficiency Test

The establishment of the ICAO ELP requirement took place when a series of three major catastrophic air crashes occurred, namely the KLM Royal Dutch Airlines (March 1977), Avianca Airline (January 1990), and American Airlines Flight 965 (December 1995). Upon investigation, these accidents were stated to occur due to language issue. As discussed in Chapter One and the AE section, before the harmonisation of the English proficiency requirement for all states, there was no regulation concerning the language to be used and proficiency requirement. However, when several investigations were performed, poor proficiency and language skills were observed among pilots and ATC, especially among non-native speakers.

In the year 2004, ICAO released DOC 9835 titled "Manual on the Implementation of ICAO Language Proficiency Requirements". This test was used for pilots and ATC language oral language proficiency. Oral language proficiency in DOC 9835 refers to*:*

a) The performance of a skill-based on underlying competencies as opposed to the simple reproduction or display of learned knowledge;

b) The performance of a complex skill resulting from the integration in real-time of several subskills constituting communicative competence. These subskills include (among others):

1) The activation of stored words and phrases belonging to the language lexicon;

2) The application of learned grammatical rules;

3) The perception and articulation of the sounds and tones that constitute a meaningful sound-stream; and

4) The adjustment in the context of interactive communication to numerous discourse, social, cultural, and professional norms

<div align="right">

Source: DOC 9835, Manual of the Implementation of ICAO
Language Proficiency Requirements

</div>

Given that language proficiency is the major component of communication, to reduce the incidents related to communication problems, the most important step is to set the proficiency requirement. The purpose of testing the pilots and ATCs is not solely to ensure that they can converse in English. However, as previously mentioned, they should be able to apply their knowledge of aviation when required to perform the listening and speaking skills. There are various language functions that pilots and ATCs need to use in jobs. They should be able to demonstrate these sub-skills in real-time and during the test and use various grammar rules, vocabulary, jargon, and correct articulation of the words.

Although ICAO proposed the use of standardised rubrics known as the holistic descriptor to assess test takers proficiency and communication skills, the organisation does not conduct the test. The test is performed by training schools, language schools, and some authorised service providers. In this case, Barbieri (2014) suggested that to intensify the quality of the test and ensure that the test takers' results meet the global stakeholders' requirements, the ICAO must endorse testing services to facilitate the achievement of the objective by providing countries with impartial recommendations on

selecting or developing English language tests that comply with the standards. The research conducted by ICAO led to the decision of testing six important criteria, namely pronunciation, structure, vocabulary, fluency, comprehension, and interaction. These criteria were included in the holistic descriptor, which described each of the discrete features and how it is rated according to the candidate's proficiency level on one to six scales (ICAO, 2011). Level one is the least proficient and six represents the most proficient speaker. The following table presents an illustration of the descriptors and ratings that are awarded based on the level of English proficiency.

Table 2.7: Description of Assessment Rubrics

Level/ Descriptors	Pronunciation	Structure	Vocabulary	Fluency	Comprehension	Interaction
Level 6	**EXPERT**					
Level 5	**EXTENDED**					
Level 4	**OPERATIONAL**					
Level 3	**PRE-OPERATIONAL**					
Level 2	**ELEMENTARY**					
Level 1	**PRE-ELEMENTARY**					

The table above presents the assessment criteria, which have been specifically designed to assess the speaking and listening skills of pilots and ATCs. Furthermore, the description of the descriptors is based on aviation-related contexts. Six levels are present in the descriptor, which distinguish the candidate's English proficiency. The minimum level accepted to work in the industry is Level 4, which is "operational". Several clauses further explain the conditions on the given rating and validity of the results, which could require two or three years based on the ICAO holistic descriptor.

The ICAO ELP test was initially a compulsory assessment for pilots and ATCs. However, following ICAO's statement that the language requirement may be made compulsory for other aviation personnel, the AE training and test have been designed

based on the ICAO holistic descriptor. Communication is considered a fundamental required to achieve competency, which impacts safety, airworthiness, other critical operational outcomes in aviation, and a cornerstone for business and management.

ICAO has listed a set of holistic descriptors, which outline the following plain English requirements. In this case, proficient speakers shall:

1. *Communicate effectively in voice-only (telephone/radiotelephone) and face-to-face situations;*

2. *Communicate in common, concrete, and work-related topics with accuracy and clarity;*

3. *Use appropriate communicative strategies to exchange messages and to recognise and resolve the misunderstanding by checking, confirming, or clarifying the information in general or work-related context;*

4. *Efficiently handle the linguistic challenges presented by a complication or unexpected turn of events, which occur within a context of a routine work situation or communicative task and they would otherwise be familiar with;*

5. *Use a dialect or accent, which is intelligible to the aeronautical community.*

Source: ICAO DOC 9835

The holistic descriptor issued by ICAO is an important guide for test-makers in all states. This descriptor should be followed when designing the ELP test or ELP preparatory course for the aviation community. The holistic descriptor presents the expected competency for Level 1 to level 6. In terms of the pilots, ATCs, and AMEs, the requirement by ICAO and local regulators is level 4 and above. Therefore, achieving Level 3 or lower will restrict individuals from performing their main job scope. Based on the above rating scale, pilots and ATCs underwent listening and speaking test, whereas AMEs were tested on their reading, writing, listening, and speaking proficiency. The

general assumption was that as aviation management trainees were a part of the aviation industry, trainees should also be tested based on the ICAO rubrics.

Investigating the communicative functions of the language used by aviation management personnel at the workplace and seeking the opinion of stakeholders are important. The types of assessment could be decided only after conforming that the assessments used for AVM trainees could be rated holistically based on ICAO holistic descriptor. This study investigated the opinion of stakeholders on the types of assessment, which could be task-based assessments or examination-based assessment that should be considered for assessing AVM trainees.

2.8.2 CEFR

ICAO began working on developing the English proficiency requirements due to the distinct levels of proficiency among the native and non-native pilots and ATCs, which resulted in catastrophic incidents in air travel. Prior to developing the aviation-specific proficiency rating scale, the aviation commission investigated the methods to explain the process of gauging pilot and ATCs proficiency through their performance in routine and non-routine situations. The revision was proposed due to the limited use of scales used to gauge actual language performance.

Amongst the rising proficiency requirement was the Common European Framework of References for Languages (CEFR), which was used by the majority of training institutions as a guide for assessing English proficiency and communication ability among the test takers. This test was also employed to assess working adults. The score given was based on a six-level rating scale covering levels A1 to C2 on the CEFR.

Table 2.7: CEFR Rating Scale

Category of user	Proficiency level
Basic user	A1 and A2

Independent user	B1 and B2
Proficient user	C1 and C2

The table above presents the proficiency terms used in the CEFR rating scale. No specifications were provided on the levels expected of learners. The course administrators and EL teachers of higher learning institutions should determine the minimal level expected and the level expected upon completion of the programme or course. Based on the predicted outcome, the EL teacher could develop teaching strategies and materials that would be useful for learners.

The usage of benchmarking of proficiency assessment varies according to the needs of the learners and their background, such as native or non-native speakers. For example, in J. Lockwood's (2012) study for the development ESP for Asian call centres, the aim of designing the course was to enhance the employees' English competency level from B2 to C1. The CEFR rubrics were selected due to its criteria that the employees needed to be trained on, such as pronunciation, language accuracy and range, discourse competence, and interactive capability within the context of the call centre. Besides focusing on speaking and listening, the CEFR proficiency rating scale was used, given that the target group consisted of Asians.

According to Bhattacharyya (2014), the Common European Framework (CEF) model is similar to the Common European Framework of Reference (CEFR) as it includes all the elements, which are crucial in testing the speaker's proficiency and language skills. Language teachers use CEFR as it has clear descriptors to indicate the level of progress and serves as a guideline especially for EL teachers who are yet to develop an assessment rubric. Besides, the testing of students based on the CEFR context aims to gauge students' linguistic skill and their ability to interact based on the contexts of the communicative tasks.

In Malaysia, the education ministry has decided to adopt the CEFR assessment to test students' English language skills at various levels to enhance English education and to elevate and improve English language proficiency among Malaysian students according to international standards (Hazita Azman, 2016; Uri and Aziz, 2018). Adopting the CEFR benchmarks for non-native trainees shows several benefits, such as setting a standard on the minimum entry requirement into a higher learning institution and graduation requirement. Language teachers could determine the predicted minimum level and the level to be achieved based on the trainees' needs. They may also propose additional courses to help trainees meet the requirements.

The CEFR requirements have been used as equivalency benchmarks for enrolment into UniKL programmes. For enrolment into the BAVM programme, local students should possess MUET qualification, while the qualifications for international are based on IELTS, TOEFL, or CEFR scores. A summary of the equivalency between the tests is presented in the table below.

Table 2.8: Equivalency Benchmarking Based on CEFR score

English Assessment	CEFR
IELTS 5.0	B1
TOEFL / CAE	B2
MUET BAND 3	CI

* CAE – Cambridge English: Advance

Table 2.8 presents the equivalence between the three most common English proficiency tests and CEFR levels. Standardising the scores is made to ensure that the proficiency is aligned with CEFR and AVM course applicants meet the minimum language requirement. The minimum proficiency requirement for local students is Band

3 of MUET examination. For international students, the candidate should at least have enrolled in IELTS or TOEFL/CAE examination and obtained the minimum score of 5.0 or above. Given that CEFR has already been used as a benchmark for students' proficiency requirements, there is a need to ensure that the aim of developing an ESP course and assessing the AVM trainees' English proficiency are aligned with CEFR. Therefore, this study would focus on aligning the course assessment with CEFR requirement.

2.9 Case Studies of Previous Research

A case study is used as a tool for an exploratory investigation that highlights the need to examine a research problem further. This section presents five different studies that have been analysed, interpreted and discussed to gain a better understanding of conducting this research.

2.9.1 Addressing Air Traffic Controllers' English Language Proficiency Needs

Mekkaoui and Mouhadjer (2019) explored the difficulties in English faced by the Algerian ATCs at the Zenata Airport encountered upon the use of this language at work, which also involved their needs, lacks, and wants. The researcher opted for case study research as English is a foreign language in the country and the ATCs need to manage communication for the local and international flights. A mixed-method was applied, which involved an interview, a questionnaire, and classroom observation. Meriam (1998) stated that 'triangulation is a measure of validity through multiple data collection methods, multiple sources, multiple investigation, and/or theoretical perspectives'. As a result, it was found that besides limited simple expressions, the Zenata ATCs had limited knowledge of both general and specific vocabulary, which prevented any successful interactions. The limited simple expression was observed through incomplete speech, abundant grammar mistakes, and frequently incorrect pronunciation.

It was confirmed from the second hypothesis that the Algerian air traffic controllers should develop their listening and speaking skills with a special focus on grammar and vocabulary. Following that, the third hypothesis results revealed that the ATCs expressed their wish to be provided with language laboratories to assist them in developing the required language skills, namely listening and speaking. They expressed their wish to receive more qualified ESP teachers and to listen to native speakers and experts in aviation industry as much as possible. It was also suggested that controllers should be taught by native speakers and be in contact with controllers from different countries virtually, or be sent to foreign countries to improve their English language command and proficiency.

2.9.2 Long-term workplace communication needs of business professionals

The case study performed by Clarice S. Chan (2019) was interesting as it determined the communication needs of business professionals. Compared to other NA research works that only focused on the graduates' present needs, the uniqueness of this research was that it demonstrated the graduates' communication needs in the later stages of their profession. The case study presented the stories from Hong Kong senior executives and their implications for ESP and higher education.

The study employed semi-structured interview to gather the information from three business professionals with over 20 years of experience. Experienced candidates were selected to explore their opinion on the use of English in different phases of their career progression. In this case, if they did encounter issue related to their English skills, their actions to improve themselves were explored. Following the question about what the participants most often used English for, the responses were technical genres such as credit analysis reports and non-technical genres, including email and meeting minutes. Even though some of the genres were not taught while they were undergraduates, the

participants claimed that they did not encounter significant difficulties in achieving the skills to write the documents. However, they agreed that having good English skills assisted them in reading different types of materials.

A highly important point emphasised by the participants was that course designers or EL teachers should not generalise different forms of report or email that they would teach in a course. To illustrate, when there is a need to teach trainees how to write technical report or negative emails, the training must specifically focus on teaching the types of report and email. Instead of merely teaching the basics, lecturers or course designers should enhance the trainees' knowledge by specifically focusing on the types, genres, or modes often used in the industry.

Clarice suggested that the activity theory may provide a guide to determine the professionalism required by business personnel to manage various business transactions in oral and written forms. The participants stated that they were faced with difficulties in managing certain situations that required social interaction besides issues in writing emails and minutes in the initial phase of their career. However, they were able to manage the issues as they progressed in their career. Therefore, the use of authentic documents or materials adapted from the actual workplace materials would enable trainees to have a better grasp on the motives of learning English and the skills they need when they are required to manage face-to-face situations or when reading and writing work-related documents.

The findings from the study highlighted the importance of critical skills, such as communication skills, interpersonal skills, and integrity for developing talent in the field of business. Clarice suggested that course designers or EL teachers should create awareness among the students about their future language. Therefore, the study concluded from the suggestion that EL teachers should develop and enhance trainees' language and critical skills required by the industry.

2.9.3 Employers' views on the importance of English proficiency and communication skill for employability in Malaysia

The study was conducted by Ting, Marzuki, Chuah, Misieng, and Jerome (2017). The most common reasons for graduates to not secure a position in the respective organisations included their poor proficiency in English besides communication problems. Although English is the second language for most non-native speakers, it is given the significant amount of importance especially in private sectors or multinational organisations. This study focused on exploring the importance of proficiency in English especially, given that communication was performed in English in most private and multinational organisations in Malaysia. An interview was performed with 10 participants, who comprised the hiring personnel in the private companies selected for the study. The oral interview was conducted face-to-face except for one participant whose interview was audio-taped.

The interview mainly aimed to determine if the hiring participants understood the terms language proficiency and communication skills and the relation between these terms with each other. Besides that, the interview also attempted to explore the importance of possessing good proficiency and communication skills to work in their respective organisations and determine the minimal level of proficiency and communication skills, which was expected of fresh graduates to ensure that they were work-ready. The findings from the semi-structured interview indicated that the hiring personnel view English proficiency and communication ability were separate elements. However, given that poor proficiency in English could cause miscommunication, it should not be taught separately. This notion applies especially in the case when the job is mainly concerned with serving customers, promoting the services, representing organisation in global platform, and good proficiency and English communication ability among the students.

In conclusion, the study suggested that despite English proficiency and communication skills were highlighted in most organisations upon the investigation of the factors leading to low employability. The students' knowledge of the subject and skills in the job should not be neglected. Additionally, they must be able to demonstrate their ability to use their language skills to explain about their knowledge and expertise.

2.9.4 Are We There Yet?

Bhattacharyya's (2018) "A Case Study of Industry-University Collaboration on Communicative Competence for Sustainable Employability and Work Readiness" is a study that investigated the concern on whether the course administrators or EL teachers prepared the training for the students based on the prospective employers and industries requirement. The author claimed that although the curriculum covered the important skills required for the future workplace, the stakeholders perceived that the graduates were lacking in their skills. Even though the employers expected the students to master several skills, such as problem-solving, teamwork, and communication, it was impossible to test the students' grasp of these skills when the language teaching was not related to learning the skills. The situation became more challenging when course administrators did not gauge students' readiness for their future job. In performing this action, the course administrators must frequently communicate via meetings or workshops to reduce the gap between the programme objectives and the industries or organisations requirements.

This study aims to investigate the stakeholder's perspective of the communicative competence, which was expected to enable the students' readiness for their future profession. The qualitative study participants comprised of managers, academic supervisors, and students who were serving as employees in the organisations where the study was conducted. The interns were third-year undergraduate students who were studying in the engineering and computing programme. One of the important findings

from the study was that course administrators should work closely with the lecturers, while prospective employers should ensure that the English or communication skills course prepared the students to communicate in a professional manner, be competitive, and demonstrate excellent leadership and teamwork qualities when performing tasks. It was suggested from the findings that to improve the marketability of the students, their interpersonal skills should be enhanced. In this case, language plays a highly important role. Additionally, the study proved that producing work-ready graduates was not achieved solely through the development of their skills and knowledge about the job or profession. However, higher learning institutions develop the students' critical skills, as required by the stakeholders. Nevertheless, the course administrators and language teachers must ensure that the outcomes from the language and communication courses are current and abreast with the technology used by the companies when developing the talent to meet workplace requirements.

2.9.5 Revisiting the Writing Competencies Expected by Industries in an Exit Test

Attan et al.'s (2018) research focused on the re-evaluation of the Test of English Communication Skills for Graduating Students (UTM-TECS), which was implemented in February 2011 to measure the university graduates' readiness to communicate in English at the workplace. Comprising both oral and written components, the test was designed based on the analysis of specific writing abilities required for effective communication in the workplace environment, criteria to be applied for assessment of the quality of the written texts, and minimum requirement expected for the written texts, which were considered to meet 'acceptable standard' within the organisation (Attan, 2012).

This study aims to make revisions to the existing construct of written communication and rating scales used for assessing the graduates writing. This action ensured that the

new graduates were equipped with the relevant workplace skills and remained employable and current in the job market. Two important considerations prompted the team to conduct the review study. Specifically, the first consideration highlighted the importance to revalidate the instruments that had been developed to measure the true communicative ability of the graduates. The second consideration was the critical need to review the employers' expectations of graduating students' communicative ability in light of their active participation in the workplace environments. Although the test consisted of oral and written components, this study focused on evaluating the writing competencies adopted by employers when evaluating students' written work and the minimum acceptable level expected by employers for the completed tasks in the workplace.

To bridge the gap in communication training at the learning institutions, attributes, and skills expected in the workplace, a qualitative approach was employed for data collection and analysis. Findings were gathered through a joint collaborative effort between three language practitioners and seven workplace professionals who reviewed the scripts written by final year engineering students. This action was performed through informal discussion and interview on matters related to the design of the writing test, assessment of the written texts, and opinions and views on the quality of the test, rating scales, and written texts. The analysis recorded that all workplace professionals agreed to the adequacy of the writing test and the writing rating scales to measure the higher-order critical-thinking ability of the new graduates. In this case, graduates were expected to be able to express themselves with clarity.

In negotiations, day-to-day interactions and briefings, the graduates should be able to speak with confidence, contribute to discussions in meetings, and confidently present their views. They were required to write reports (sales, progress, proposal, feasibility, and technical) and office correspondences. Office correspondences consisted of writing

memos, letters, emails, and briefings. In some cases, they needed to write problem-solving reports involving the write-up of the chronology of events leading to the problem, which was complete with photographs and captions and a proposed solution to the problem. Overall, these elements required strong insights into the highlighted issue, accurate analysis of events, and a feasible proposal to solve the issue.

The 'satisfactory' level is currently the preferred level in most organisations, in which the written piece should present a more mature analysis of data, the relationship between the data, and logical conclusions about the data in the test. The findings suggested that the workplace professionals agreed about the adequacy of the writing rating scales. The descriptors of abilities in the respective levels were adequately and appropriately set to match the performance at the workplace. Following that, it was demonstrated that communication in problem-solving skills was a component that was repeatedly emphasised by many employers as a required component to show the new graduates' writing ability. This aspect was included in the writing descriptor.

The studies reviewed in this section highlight the similar issues that have been raised in this researcher on investigating the communication needs and ESP syllabus development for AVM trainees. The five studies selected have provided thoughtful insights on addressing the research questions posed in this study; ESP curriculum design for workplace communication situations, the use of the ELP test, and the need to align the syllabus and assessment to meet the prospective employers' expectations and minimum requirements.

2.10 Summary

This chapter presents the large scope of communication in aviation, which currently covers ICAO ELP requirements and the development of AE. In addition, the chapter has discussed ESP theory and the development of other AE courses based on ESP methodology. In this chapter, the NA, syllabus design, materials design, evaluation of

teaching materials, and developing assessment criteria are discussed. The next chapter discusses the methodology employed in this study.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter discusses the research design used in this study, the data collection method, and the tools used for gathering the selected data. The selection of samples and respondents for each process is described in detail. This is followed by a discussion about the data analysis method and instruments adopted in this study. The questionnaire construction and reliability test were performed to ensure the reliability of the findings. This chapter explains the focused group interview process, syllabus, and assessment development process. Following that, the final section of this chapter presents the considerations of ethics in data collection.

3.2 Research Aims

Bearing in mind the research objectives of the present study and in order to answer the research questions of the study, the appropriate research method was employed. The following analysis explains the adopted method, instrument used, why, and how the following research questions were addressed in this study.

1. What are the English communicative needs of learners in an Aviation Management (AVM) programme?

2. What are the gaps present between the existing English curriculum and their future workplace requirement?

3. How should a revised AVM English curriculum be designed to meet workplace requirements?

The research aims to evaluate the existing curriculum and develop an English for specific purposes course for aviation management trainees. The research design, therefore, must utilize a multiphased approach.

3.3 Research Design

Long (2005) explained that similar to the medical practice where medicines are not prescribed without proper diagnosis, no language course in ELT should be designed without a thorough analysis of the communicative needs. Every language course, ESP, GE, or Communicative Language Teaching (CLT) should consider a course with specific aims and objectives. Nevertheless, these courses may vary due to learner needs, including occupational, academic, or survival needs (Albassri, 2016). Learners' preferences could also differ in terms of preference in teaching approaches (F2F or online), while the need to undergo certain assessments, such as IELTS, TOIEC or ICAO ELPT, is the possible reason of learners' need for English. Therefore, the research design selected in this study should allow an in-depth investigation to address the research questions.

The study required respondents to share their knowledge, opinion, and experiences of using the English language in the aviation management industry. As a part of the quantitative research method, a questionnaire survey was adopted in the early phase of the study to obtain an overview of the research context. This survey would provide the initial information towards further in-depth interviews and focus group discussions. The results from the analysis of the questionnaire survey could apply to a wider AVM workplace context compared to the research sites, such as the frequency of use of various communicative events and stakeholders' suggestions on what the English course for AVM trainees should comprise. However, Wong (2015) stated that the findings regarding the individual views of English language needs might vary especially when the context involves a multilingual community. Within the location of this study, which was Sepang, the aviation management community included local and foreign aviation companies besides the multiracial community, with Bahasa Melayu being the main language. The selected research design should consider its possible implications for the study.

De Vaus (2001) stated that the research design of a study must focus on addressing the research problem, which has been highlighted. The research design selected in a study will determine the type of data that needs to be collected, the measurement to be used, and how the data will be analysed. In 2008, Creswell introduced mixed-method research that sets to be present between qualitative and quantitative designs.

Qualitative design (QUAL) seeks to explore and identify the underlying reason of the human's way of interpreting issues, concerns, or emerging questions. The QUAL research process involves a detailed investigation of the issue, concern, or emerging questions followed by the process of analysing the meaning of the data. In addition, qualitative data reflects upon the experience and depth of knowledge and understanding (Newby, 2014).

Quantitative design (QUAN) research design aims to test theories such as factors, impact, or perception by examining the relationship among variables. The variables can be analysed using numerical data and statistics. The QUAN research is used to examine theories when needed and prove that the research is not biased or controlling.

Mixed-Method design (MM) research design is used when there is a need to employ both the QUAL and QUAN methodology. The MM research design offers clearer results for the study. It also requires the researcher to triangulate the findings obtained from both the qualitative and quantitative approaches to increase the validity of the data.

In determining the research design that is appropriate for this study, it is important to understand the philosophical worldviews and their relation to the research design. Four philosophical ideas are present: postpositive, social construction, participatory, and

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pragmatism. This study focused on pragmatism. According to Creswell (2018), pragmatism is a view that evolves based on actions, conditions, and effects.

This study aims to determine the needs of English for aviation management purposes and the considerations to be taken when designing an ESP course for this target group. The pragmatic view was selected due to the focus on pragmatics in applying the element that works and the ways to solve the issues (Patton, 1990). Some assumptions on pragmatics and their relation to the mixed method were discussed by Morgan (2007) and Creswell (2008).

i. *Individual researchers have freedom of choice. To be specific, they are free to choose the methods, techniques, and procedures of research that best meet their needs and purposes.*

ii. *Pragmatists do not see the world as an absolute unity. Similarly, mixed methods researchers refer to many approaches for collecting and analysing data instead of subscribing to only one method (e.g., quantitative or qualitative).*

iii. *Truth is what works at the time. It is not based on a duality between reality independent of the mind or within the mind. Thus, in mixed methods research, investigators use both quantitative and qualitative data as they provide the best understanding of a research problem.*

Source: Creswell (2018)

3.4 Mixed Method Design

A mixed-method design was selected for this study to obtain a deeper understanding of the importance of English in aviation management from different stakeholders involved in this study. This was followed by a suggestion that possible changes are made to the syllabus for the targeted aviation management trainees. Employing a mixed-method design could improve the trust in the presented findings and provide more support for the data collected compared to the use of a single approach (Creswell & Plano Clark, 2011; Caruth, 2013; Bowen & Rose, 2017).

A mixed-method is commonly employed when the research problem and research questions cannot be answered adequately by either a QUAL or QUAN research design (Creswell, 2003). In this study, a mixed-method was employed to conduct the needs analysis and develop the proposed course as it allowed the researcher to gather data and reflect on the stakeholders' accounts on the importance of English proficiency amongst AVM trainees.

In addressing the needs of AVM trainees, this study should include both the elements of a mixed-method approach, specifically QUAL + QUAN. Using the MM research design, the study could integrate different approaches to design the research questions and various methods, which allowed the researcher to design research questions within the perspective or setting of the study (Johnson and Onwuegbuzie, 2004; Bowen and Rose, 2017). A mixed-method enabled the researcher to gather data and reflect on the stakeholders' accounts on the importance of English proficiency amongst AVM trainees. In mixed-method research, the scope of QUAL and QUAN was not reduced. Both the QUAL and QUAN followed the standard approach, which was to identify the problem, decide what was expected of the study, and gather and analyse all the information after inferring the findings. Some of the key elements of rigour for both quantitative and qualitative methods considered for this study are as follows:

- Permissions for gaining access to the site

  The aviation industry is the most highly regulated industry, while special permission is often required to gain entry into offices or sites.

- Number of participants

  The scope of this study was the aviation population located in Sepang. Although several types of aviation entities were present, the number of participants depended on the participants' willingness due to time and availability factors.

- Types of data required

Types of data that need to be collected could be in various forms. Data collection depended on the participants from the organisations, given that safety and security could be of concern.

- The instrument for gathering data (e.g., surveys, observational checklists, open-ended interviews, focus group protocols)

  Similar to the types of data that need to be collected, the instrument used should be carefully designed to ensure that the participants can contribute their input and ideas.

- Sorting out the data gathered is the first stage in the analysis of data

  The data obtained would need to be studied carefully to ensure that the data obtained could be segregated into categories of (ir)relevant information or new information.

- Approaches to establishing the validity and reliability of the data (e.g., internal validity)

  The validity and reliability of the data obtained should be determined to ensure that the research objectives were addressed in answering the research questions.

Source: Creswell (2014), Research Design: Qualitative,Quantitative and Mixed Methods Approaches (4th ed.). Thousand Oaks, Sage Publications.

This study aims to investigate the English language needs of AVM and propose an ESP course for aviation management trainees. Generally, several stages were involved when designing a curriculum for the targeted group, namely analysis, design, development, implementation, and evaluation. As such, a mixed-method is deemed the ideal method to address the research questions in this study as it could accommodate qualitative and quantitative approaches and data triangulation purposes. Furthermore, it examined the views on the practical use of English amongst aviation management stakeholders. However, before determining the instrument to be used in the study, it is

necessary to decide the type of mixed-method strategy that will be employed. Creswell (2018) suggested the following six types of mixed method strategies.

1. *Explanatory Sequential Strategy (QUAN + QUAL)*
   Quantitative data are collected first and more heavily weighted than qualitative data.

2. *Exploratory Sequential Strategy (QUAL+ QUAN)*
   Qualitative data are collected beforehand and given more emphasis than quantitative data.

3. *Convergent Parallel Strategy (QUAN + QUAL)*
   Qualitative and quantitative data are given equal attention and emphasis and are collected concurrently throughout the same study.

4. *Embedded Design/ Experiment*
   The quantitative element of the study is always an experimental design, while these data are primary and more heavily weighted in the study.

5. *Transformative Design/Social Justice*
   Social justice has a specific purpose of addressing the injustice faced by some groups in society.

6. *Multistage Evaluation Strategy*
   This is a step-by-step procedure of collecting and analysing data regarding the efficiency, quality, and suitability of a programme or implementation.

3.4.1 Exploratory Sequential Design

To answer the research objectives and questions, this study employed the second strategy, which was the exploratory sequential design (ESD). The initial stage of a needs analysis (NA) required the researcher to understand the phenomenon. In this case, the researcher aims to investigate the communicative needs of AVM personnel before proposing an ESP for AVM trainees. In ensuring that the results of the study were valid, the exploratory sequential strategy was selected to ensure that the data could be

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triangulated. Ivankova and Creswell (2009) observed that "triangulation could result in substantiated and well-validated findings because it offsets the weaknesses of one method with the strengths of another".

This study was exploratory, while no other studies had involved AVM trainees. Therefore, the data collection method selected for the NA should be carefully designed to ensure that the data collected was valid and could be applied in designing the ESP course. As the study aims to develop an ESP course for AVM trainees, the QUAL approach was deemed more significant to address the above-listed question. Meanwhile, the QUAN approach was applied to conform to the findings that were collected from the QUAL approach.

Several researchers employed the exploratory sequential MM design in their research work. Among the studies reported was the study by Bhattacharyya (2018), who utilised an exploratory MM design to conduct a study on determining the need for academicians to engage with managers from the IT industry to exchange their opinions and set expectations of the IT interns. Bhattacharyya conducted a QUAL research to investigate the issue before proceeding with QUAN research approaches to confirm the findings gathered in the QUAL stage. Meanwhile, in a recent study conducted by Monteiro (2019), despite the sample size involved a small number of respondents (N = 38), the use of exploratory sequential design was reported to enable the researcher to achieve the desired outcome in understanding the Radio Telephony (RT) communication.

This study applied the exploratory sequential MM design to ensure that the English language needs of AVM trainees were thoroughly explored. As stated in Chapter Two, extremely limited works of literature were available in this study, making it important to thoroughly explore the views of stakeholders. The exploratory strategy enabled the researcher to explore the enquiry and expand the research questions to

confirm the findings before they could be further supported with the QUAN findings. Hence, the exploratory sequential MM design was applied in this study.

Based on the literature review presented in chapter two, this research was performed based on the following conceptual framework.
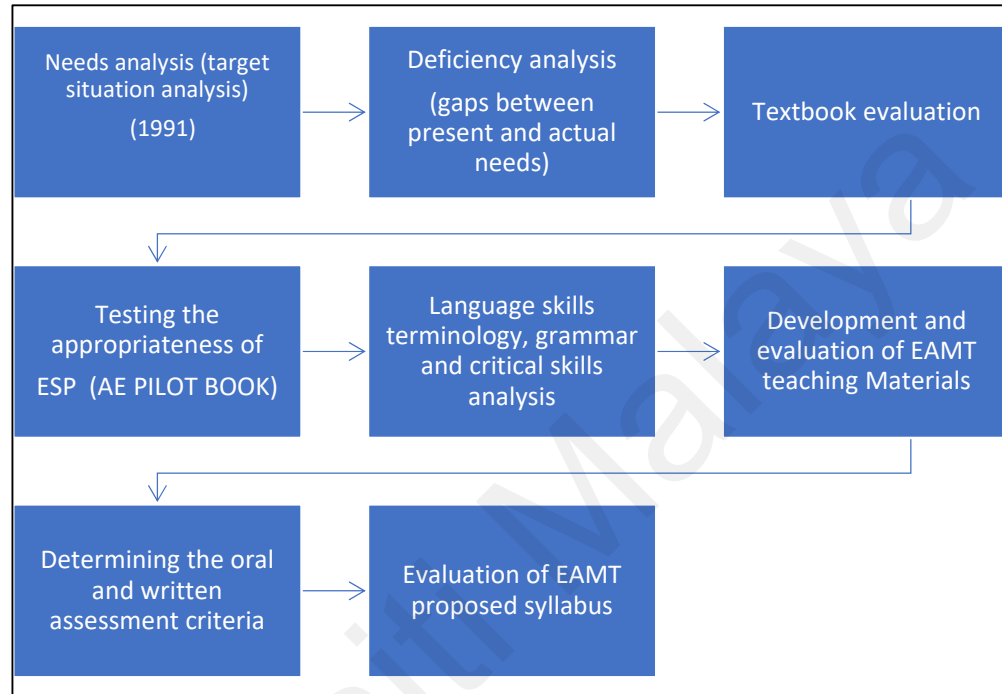
Figure 3.1: Conceptual framework for an ESP course design

The conceptual framework illustrated above is a brief description of curriculum development stages, which will be used as a guide in investigating the workplace language needs of AVM personnel and the criteria to be considered when developing an ESP course for AVM trainees or personnel. The following chapter will discuss the details of the method used in each step shown below.

3.5 Data Collection Instruments

The following sections explain the QUAL and QUAN instruments used in this study.

3.5.1 Interviews

An interview was employed as an instrument in this study to scrutinise the English proficiency and language needs of AVM personnel, the use of English in the spoken and written contexts, and determine the language and communication skills required by AVM personnel at the workplace. The study employed heavily structured and profound interviews, where several interviews were performed to gather a more focused, qualitative textual data required for the study.

Semi-structured interviews combined structured and unstructured approaches. In this case, the term "semi-structured" refers to a more workable style as "it allows depth to be achieved by providing the opportunity on the part of the interviewer to obtain and expand the interviewees' responses" (Rubin & Rubin, 2005). When conducting semi-structured interviews, there is a need to develop or use an existing checklist (Berg, 2007), which encompasses all relevant areas (e.g., the research questions). Besides, a checklist enables in-depth probing while allowing the interviewer to keep the interview within the parameters traced out by the aim of the study.

In the current study, a semi-structured interview was used for three purposes: (1) to gather information about the research questions presented in the study; (2) to analyse the key findings from the interview that must be confirmed in percentage through the survey questionnaire; and (3) to confirm the need to employ other data collection methods in this study, namely document analysis, FGD, and evaluation. Given that the study was based on exploratory design, the interview findings were vital to enable the study to obtain the answer to other research questions. The interview sessions were recorded and transcribed.

3.5.2 Questionnaire Survey

Provided that the selected research design was an MM exploratory sequential strategy, QUAN data was also required to determine participant's agreement on the needs

of using English for their job scope. This study involved a questionnaire survey as an instrument to determine whether the findings from the QUAL and QUAN approaches complemented each other as these approaches aimed to address the same constructs (Diloreto and Gaines, 2016). The questionnaire survey was designed to capture the perspectives of different stakeholders and ensure that the findings from both qualitative and quantitative methods offered the same insight on the TSA and PSA.

3.5.3 Deficiency Analysis

West (1994) defined Deficiency Analysis (DA) as an analysis that bridges the gap between the TSA and PSA while taking the learners' wants into account. In most cases, ESP is proposed because several missing elements in the current syllabus are regarded as important for the learners. Deficiency analysis or assessment of the "learning gap" between target language use and current learner proficiencies. West (1997) added that, the gap in a curriculum could be identified based on the difference between the language syllabus and the actual needs specified by the AVM personnel, which are otherwise known as deficiency analysis (Jordan, 2011). Provided that this analysis is a qualitative method employed to examine the strengths and weaknesses of a programme, method, or assessment, it is applied to present a clearer picture of what is lacking in the current curriculum.

This study will use DA, and the procedure is described below:

1. First, the RQ1 findings will be compiled and put into a comparison table, and the second column will comprise the course learning outcomes.

2. Next, the similarity between the current syllabus content and the findings compiled from RQ1 will be calculated.

3. The similarity level will indicate the percentage of the difference between the current syllabus and proposed skills, topics and activities.

3.5.4 Content Analysis

In aviation, documentation is a highly important aspect that requires attention from members of the industry. Manufacturers and regulators often issue documents when required. Aviation organisations need to adhere to international and local regulation or issued documentation. Petrov (2016) lists the following documents as a basic set in aviation.

1. Annexes - States the Standards and Recommend Practices (SARPs) expected from state signatories to the ICAO convention.

2. Design documents - Furnished for the operator by the aircraft designer (type of certificate holder).

3. Operation documents - The airline operator is responsible for the development of the organisation standard operating documents.

4. Manufacturer's recommended documents – This document is provided by the aircraft manufacturer to an operator to advise on ac operating procedures.

5. Safety documents – Issued by ICAO and CAAM. This document details the standard operating procedures (S.O.P) and responsibilities of aircraft designers and airline operators to adhere to airworthiness directives.

The aforementioned documents are used in the aviation industry. The fact that AVM personnel may or may not be required to read or use these documents would be known during the TSA. When the importance of these documents and identification of the specific document are presented, the next step is to perform a content analysis of these documents.

Content analysis was conducted to investigate the target language used in the documents or materials. These terms are used interchangeably. For many years, organisational and institutional documents have been a staple in qualitative research. In recent years, there has been an increase in research that mentions document analysis as

part of the methodology(Bowen, 2009). Content analysis is qualitative research that explores the suitability of the documents or materials used. Text data may be in the form of verbal, printed, or electronic, and might have been obtained from narrative responses, open-ended survey questions, interviews, focus groups, observations, or print media such as articles, books, or manuals (Kondracki & Wellman, 2002; Helgevold & Moen, 2015). In this study the documents analysed are actual workplace documents. The purpose of analyzing actual workplace documents is to enable the researcher to determine whether the existing teaching material mirrors the materials or is almost similar to the one used by stakeholders for job purposes.

Although Beaulieu (2014) performed a content analysis on nursing textbooks prior to analysing the textbooks, the reports on patient's health status and needs were analysed. It was found that the language functions used in the textbook accurately reflected the nursing situations found in the target situation. Given that learners depended on textbooks as a reference for self-study, textbook writers or course designers should investigate the documents or materials that were used in the job and the language aspects or functions used in the discourse of the profession.

In this study, the list of materials suggested by the participants was collected and then segmented and analyzed the contents of the recorded verbal protocol reports. The content of the documents was analyzed as it played an important role in determining the degree of trainees engagement with the tasks instructional materials, both holistically and in terms of individual types of activities. The content analysis of the documents was done based on the following criteria:

- ➢ Grammatical aspects
- ➢ Vocabulary and terminology
- ➢ Language functions
- ➢ Content

As the study aims to design an ESP based syllabus for the AVM trainees, it is necessary to identify the important characters and the use of the language as a medium for communication. This information will be useful in designing the teaching and assessment materials.

3.6 Data Collection Stages

This exploratory case study employed an MM exploratory sequential strategy, where data collection methods were used to gather the opinions and ideas from different participants. As shown in Figure 3.1 below, this study was divided into three phases.

PHASE 1
- Survey on the importance of English for work purpose and the types of task that require English proficiency of AVM trainees'

PHASE 2
- Survey on the desired course content, types of teaching materials and language functions to be incoporated
- Deficiency analysis

PHASE 3
- Evaluation of the proposed EAM curriculum and assessment rubrics
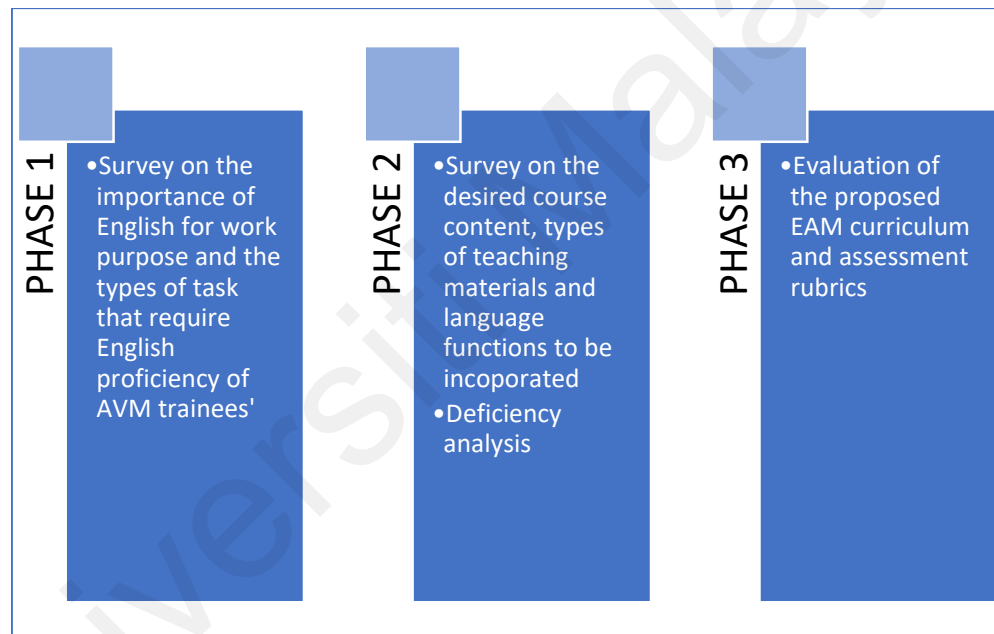
Figure 3.2: Research Phases

Following this study objective to propose a new ESP course, the study involved an AVM group. Therefore, the data collection for this study was conducted in three phases that also answered the three main research questions of this study. Phase 1 was initiated with exploring the receptive and productive communication outputs and determining the type of English required by AVM personnel for oral and written communication purposes. This was followed by Phase 2, where the data collected in Phase 1 was used to perform a gap analysis of the existing curriculum and the actual communication needs in

the work environment. Similarly, document analysis was used to identify the appropriate materials and language functions that should be considered in the proposed ESP course for AVM trainees. Finally, in Phase 3, an examination was conducted on the minimum level of language ability expected by employers and the criteria adopted by them when evaluating the quality of oral and written output for the acceptance of potential AVMT learners into the workplace. The data collection stages have been illustrated in the conceptual framework presented in Chapter Two. The following sections will discuss each method presented in the framework according to the phases.

PHASE 1

As shown in figure 3.1, phase 1 seeks to investigate the TSA of the AVM personnel English communication needs. Therefore in this phase, a semi-structured interview and survey questionnaire was employed.

3.6.1 Target Situation Analysis

The TSA seeks to investigate the communicative needs of AVM trainees and provide in-depth answers to the research question. In this study, the TSA aims to determine the English communicative needs of the AVM trainees. Long (2005) highlighted that the involvement of the stakeholders in the study would most likely result in findings that were more fruitful for the study. Accordingly, the TSA was conducted with the participants from different entities to ensure that the information gathered could be compared and validated. The TSA was first conducted via an individual interview. The questions of the interview were developed based on the interview checklist, which was adopted from Ahmad Tajuddin and Azza Jauhar's (2015) study titled "A Malaysian Professional Communication Skills in English Framework for English for Occupational Purposes Courses". The interview questions were divided into three sections to investigate the following information.

i. Background information of participants

ii. Importance of English in the job scope, oral, and written contexts and skills that require English proficiency

iii. Types of oral and written discourse that AVM personnel usually need to perform for the job and how the oral and written performances are rated in the range of poor,   average, good, and excellent

As described above, the purpose of dividing the interview questions into three sections was to ease the process of categorising the collected information. The interview questions were validated by SMEs (aviation and English) and revised based on the recommendations given. The interview schedule is attached in the appendix. Furthermore, the interviews were recorded to ensure that the information was not overlooked, forgotten, or missed.

Sullivan (2010) stated that visual or audio sound recording provides an unbiased and true recitation of the interview, which creates a better insight into the study (Sullivan, 2010). The interviews were scheduled based on the following step:

1. Identify the participants from the aviation organisation or company

2. Set interview appointment

3. Meet the participant at the agreed location

As informed in section 3.3.2, apart from the interview, the TSA involved a QUAN method through a questionnaire survey. The questionnaire was designed based on preliminary findings from the collated interview data. The questionnaire for this study was adopted from Chan's (2014) study entitled "Communicative Needs in the Workplace and Curriculum Development of Business English Courses in Hong Kong". Similar to the interview schedule, the questionnaire was validated by SMEs before the pilot study was performed.

The questionnaire is an essential instrument in this study for confirming the data gathered in the interview. A questionnaire comprises a set of standardized questions, often called *items*, which follow a fixed scheme in order to collect individual data about one or more specific topics. The questionnaire items include multiple-choice questions for investigating participants demographic information and Likert scale questions for the TSA. The sections in the questionnaire are as described below.

Section I: Demographic information, department, education background, and
working experience

Section II: Language needs in the workplace – spoken and written

Section III: Challenges faced when using English for speaking, writing, reading, and
listening activities

Section IV: Alumni's opinion on the relevance of the current English courses for the
job scope

Section V: Suggestions for the proposed ESP course for AVM trainees – teaching
materials, course content, skills, and assessments.

Although it presented a section for alumni participants, the questionnaire was not separated for the AVM personnel. The questionnaire draft went thru the same process of validation as the interview schedule. The questionnaire was administered manually at several locations, such as the airport and offices of the personnel, while the online version was conducted via the survey monkey website. The questionnaire was first administered using a pilot study. The pilot study is the preliminary stage in questionnaire administration. In this study, the pilot study was used to test participants' understanding of the questions included in the questionnaire. The feedback and comments from administering the pilot study were analyzed before administering the questionnaire for a larger group of participants. The pilot study was administered using the online questionnaire and involved five participants; 2 alumni and 3 AVM personnel. The

participants' comments were on the error in the numbering of the questions in the survey monkey website. The numbering of the questions was amended, and the final version of the questionnaire is attached in the appendix.

PHASE 2

Phase 2 seeks to determine the gaps between the existing programme and the trainees' future workplace requirements. As such, the three instruments used in phase 2 are deficiency analysis, FGD and content analysis.

3.6.2 Present Situation Analysis

The deficiency analysis was applied in this study to analyse the PSA, gaps between the current syllabus content, and the actual English language needs as perceived by the stakeholders. The deficiency analysis could help the course designer or researcher to identify if the course was lacking of the appropriate content and skills or whether the assessment criteria did not meet the requirement of the prospective employers. According to Lee (2015), PSA needs to be discovered to provide a clearer picture of learners' needs.
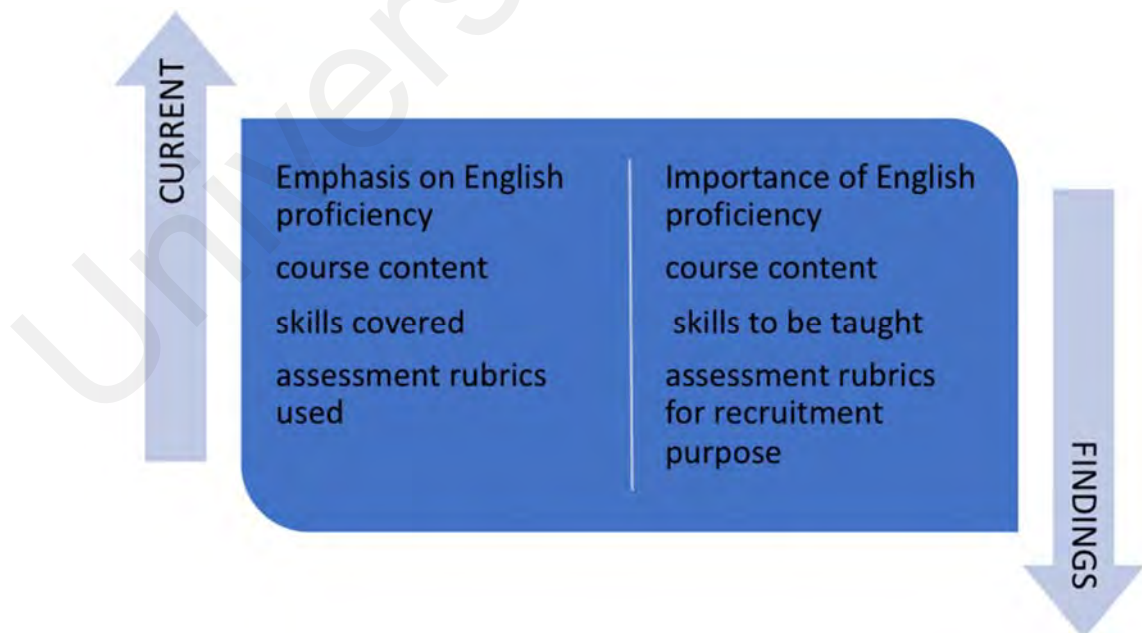
Figure 3.3 Present Situation Analysis

The figure demonstrates that deficiency analysis allowed the course designers or language teachers to identify any gaps and determine whether the gap size was not excessive and whether any considerations were taken from the TSA and PSA findings. It was also necessary to gain access to the existing curriculum to enable comparison between the desired course content and existing course content and assessment. If conducted with caution, deficiency analysis could provide course designers with suggestions for revision of a course curriculum or revamping the entire curriculum.

3.6.3 Textbook Evaluation

The next step in deciding the need to propose a new curriculum is to determine the appropriateness of the textbook that is currently used by the trainees, which is the in-house developed textbook for English Level 1 and 2. For Level 3, the language teacher opts to use an academic report writing textbook as it covers most of the topics on academic report writing.

In performing the evaluation, a sample of the form was adopted from Mohammadi and Abdi's (2014) study on "Textbook Evaluation: A Case Study". An evaluation form was used to gather opinions from the aviation industry representatives regarding the suitability of the textbooks, which are currently used for all three levels.
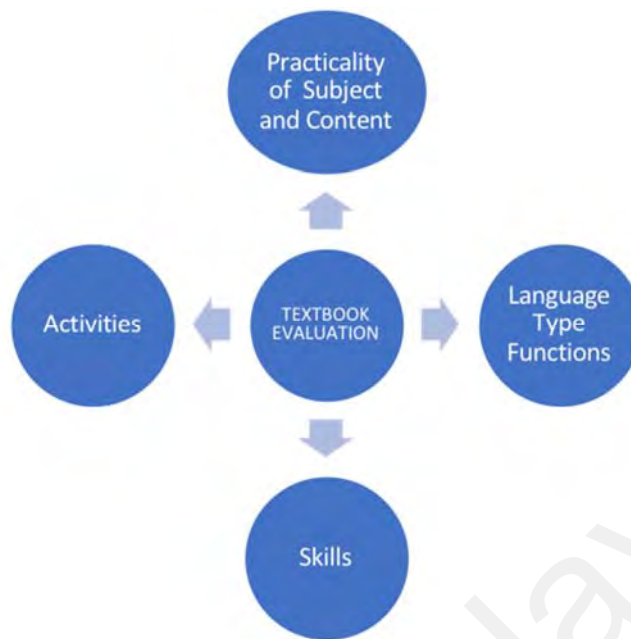
Figure 3.4: Textbook Evaluation Criteria

Besides evaluating the relevance of the currently used in-house developed textbook, the questionnaire also sought to gather opinions on the Aviation English book used by pilots and ATCs by Macmillan. The evaluation of the AE textbook for Pilots and ATC was necessary as the SMEs suggested using the textbook in the early stage of carrying out this research. As explained in chapter one, the current English curriculum is a GE course offered to students across nine different campuses. Therefore all three textbooks are not related to aviation. The four textbooks were evaluated by 10 AVM personnel. Given that no literature work was produced for AVM personnel under the AE branch, it was important to investigate the opinions of the participants to determine whether the AE textbook for pilots and ATCs were suitable for the AVM trainees.

3.6.4 Aviation Document Analysis

Selecting the teaching material is often a highly challenging decision as it requires research and understanding of the suitability of the content. Richards (2001) argued that understanding the exact language aspect and skills required by trainees is easier with the availability of more authentic documents for reference. Language teachers commonly

have a variety of options when it comes to selecting the teaching materials, which are readily available in the market. Tsou and Chen (2014) stated that ESP teachers who specialise in teaching English for certain academic disciplines are in the ideal position to determine the authenticity of such documents due to their exposure to this field. In the context of the present research, although a variety of AE teaching materials is available, the selection of appropriate materials is often a challenge, given that the existing materials are not specifically designed to cater to the needs of AVM personnel. Although textbook evaluation is often encouraged, time constraints mostly result in the teachers selecting textbooks or teaching materials that are less relevant to learners.

In a study performed by Pinner (2013) at a Japanese University, the English lessons were found to be enjoyed by the learners as they gained the opportunity to learn English based on the content areas that were related to their future professions. Learning English in the workplace context is vital for enhancing the learners' language skills. Banegas (2018) added that learners gain more motivation to learn English if the content of the topics and activities covers the aspects they need to excel in their academics and offers them more exposure. Although the study did not involve corpus linguistics techniques, the manual and annexes extracts, emails and regulation documents, and the genres most frequently used by participants in their places of work were analysed manually to complement the findings from the questionnaire surveys and interviews.

The purpose of collecting and analysing the relevant documents in this study was to identify the most relevant language skills needed and the key linguistic patterns used in the target situation. Banegas (2018) elaborated that despite the use of authentic material that potentially benefits the learners, many problems are present in obtaining aviation-related authentic materials. One of the problems includes documents or recordings that are challenging to access due to a certain level of privacy. Authentic materials in the present study referred to the actual materials used by the AVM personnel, such as aircraft

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manual extracts, annexes, emails, and letters. Communication in aviation, written, or spoken output, is considered special due to the safety and security requirements of the aviation industry. Most aviation organisations do not share any information or allow the recording of any meetings or discussions. However, some materials have been made accessible on the ICAO or IATA website.

3.6.5 Assessing the Appropriateness of ESP for AVM Trainees

There are several ways to investigate the appropriateness of a language teaching approach before considering it when designing a curriculum. This aspect is a highly important decision as gathering information on the communicative needs alone may not be sufficient. The TSA and PSA were employed in this study to enable language teachers and course designers to justify the reason(s) for selecting ESP or any other ELT approaches for target learners. The appropriateness of ESP for AVM trainees would be determined by examining the opinion of the participants in the questionnaire survey and assessing the gaps from the deficiency analysis. In addition, the current textbook and sample ESP materials evaluation functions in assessing the appropriateness and need of ESP for AVM trainees. The final stage includes the evaluation of the proposed curriculum.

PHASE 3

The final phase of the study sought to determine how a revised AVM curriculum could be designed to meet the workplace requirements. Therefore, phase 3 will employ the evaluation method.

3.6.6 Evaluation of the Proposed Assessment Rubrics

As previously highlighted in the earlier chapters, proficiency assessment is highly important for most aviation personnel. Curriculum design would not be successful without determining the assessment criteria. Assessment should prepare trainees for determining the minimum level of proficiency expected of a fresh candidate who wishes

to work in the aviation organisations and the types of assessment that will benefit trainees. Apart from that, as the study aims to propose and design an ESP course for AVM trainees, the assessment rubrics for assessing trainees' proficiency should be determined. Thus, the assessment of rubrics will be performed on the following aspects:

   i.To investigate the minimum level of oral and written proficiency expected of fresh recruits.

   ii.To identify the types of assessments that are appropriate for trainees.

   iii.To examine the present proficiency descriptor and determine whether it is appropriate to assess AVM trainees' spoken and written proficiency.

As described above, the evaluation of the proposed ESP syllabus design and assessment rubric was the final stage of the data collection process. These processes were performed via a semi-structured survey and evaluation form. The semi-structured survey form was adopted from an online source (SAMPLE Questions for Curriculum Reviewers -Michigan State University). The survey form was validated before it was being administered. The PSA results gathered by employing the instruments selected was used to design the ESP syllabus. Since presently there are three English courses included in the BAVM programme, the findings gathered from the study will also be used to develop an ESP syllabus comprising three levels. In addition, the assessment rubrics currently used to gauge trainees' productive and receptive skills need to be evaluated to explore the appropriateness of the components assessed. The ESP syllabus evaluation involved the six SMEs and an English language expert, and the assessment rubrics evaluation involved three ELP raters and five AVM personnel. The reason these sample sizes of participants were selected was due to the reason that the evaluation must be done by participants who have knowledge about the study. However, due to the pandemic season, most of the participants were busy and not available to meet due to company policy.

3.7 Selection of Participants

The aviation industry comprises five main entities, while the scope of aviation management in these entities is presented in Chapter One. Based on the research questions developed in this study and literature, the study employed TSA and PSA as parts of the NA. In conducting the TSA and PSA, the participants should be the AVM personnel, given that they were the targeted group in the research. The selection of the AVM personnel from the aviation entities was performed to seek confirmation on the importance of acquiring specialised Aviation English for their job purposes and determine their oral and written communication needs.

The second research question involved PSA to investigate the gaps between the actual language needs, which were specified through the TSA with the current English courses content and materials. In addition, the sub-question explored the topics to be included in the proposed ESP curriculum. To address this question, the ideal participants were the AVM personnel consisting of the programme alumni who received at least two years of working experience in the organisation. The selection of these participants was due to two factors. One factor was that the alumni had studied the current English language courses, making them the ideal reference to inform whether the current course content met the job scope. Second, the alumni required a minimal experience of two years working in the aviation organisation. This feature would allow them to explain the importance of English proficiency in performing the tasks related to their jobs and sharing their opinions on the TSA. Apart from the AVM personnel, the PSA was performed through an FGD with the SMEs.

As discussed in Chapter Two, the ESP teacher should consult the SME when determining the PSA of trainees to ensure that it aligns with the courses included in the programme. Hence, the target participants shortlisted in this study were the AVM personnel and the alumni of the programme who are currently working in the aviation

organisations, as shown in Figure 1. The selection of the participants was relatively rigid, provided that the participants were required to gain relevant experience to contribute to this study. The selected participants would comprise individuals who work in the administrative, human resources, planning, corporate communication, training, and several other aviation management positions. The procedure of gathering contact information of prospective participants was performed based on the following procedures.

    i.   The first step was to contact the officer in charge of the Industrial Linkages department, which represented the university in managing aviation stakeholders. Therefore, a list of databases of all aviation organisations (local and international) was present.

    ii.   The officer in charge acted as the gatekeeper was provided with the consent letter to perform data collection from Universiti Malaya and explained the protocol that would be used for data collection.

    iii.   The next person contacted was the personnel in charge of managing the Alumni members' database. The same procedure was repeated to inform the intention of the study.

    iv.   After receiving the AVM personnel and Alumni contact list, emails were sent to the recipient from each organisation. In purposive response sampling, the personnel or alumni who participated in the study should be an individual working in the AVM departments (stakeholders), as presented in Chapter One. In this case, some of the contacted personnel had to redirect the interview request to the relevant personnel.

    v.   The emails were accompanied by the consent letter obtained from the university and an explanation about the purpose of the study. Most of the contacted alumni agreed to participate despite their hectic schedules. However,

some AVM personnel were reluctant due to their concern that the research might require them to reveal private and confidential information about the organisation. However, after several attempts, some of the requests were approved, although some other requests were not fulfilled.

3.7.1 Sampling of Participants

A sample is representative of a population that will be involved in the research. Sample selection is important to determine the precision of the results to represent the population as a whole. In the study, the number of AVM personnel selected as sample representative was determined based on the size of the population. Given that the aviation industry is highly regulated, gathering samples for the NA is not a simple process. Therefore, the non-probability sampling method was used in this study. Despite the sizeable population of AVM personnel in Malaysia, the study involved a small purposive sample comprising AVM personnel who are graduates or alumni of the programme. A purposive sample was employed to ensure that the participants selected for the qualitative research method used in this study would provide precise and useful data. In addition, the target populations contacts are not easily accessible. Therefore, those who were interviewed recommended their colleagues and friends who could be participants of the study.

The subjects chosen for the interview, textbook, sample materials, and assessment evaluation ranged from senior executives, supervisors, department managers, and airline managers, whose responsibility covered the national and international scopes. In ensuring that relevant findings is obtained, the participants approached in this study needed to have a minimum of 2 years of work experience as an AVM personnel. Besides that, the AVM personnel must hold the position of at least junior executive to be able to participate in the study. These criteria was included to ensure that the participants selected had the relevant experience and position in the organisations, including the ability to explain the

qualities of an efficient AVM personnel and what was expected of fresh recruits or graduates working in Malaysian-owned and foreign-owned aviation organisations.

As mentioned above, the list of potential participants was obtained from a gatekeeper. The list comprised of 50 aviation companies in Malaysia. However, for the sampling of this study, the companies selected are those located in the vicinity of the central aviation hub in Malaysia, which is Sepang, a district in Selangor. The next step was to contact the gatekeeper of the shortlisted companies to inform the purpose of the study and get the potential participants' contact addresses. Since the aviation industry is highly regulated, the researcher provided the potential participants with the consent letter from the univeristy to ensure that the data or information shared will be kept confidential. The number of AVM personnel for each organization varies. Therefore for smaller organizations, the researcher tried to get at least two respondents to participate in the interview and four to five respondents for big-scale organizations. As for the questionnaire survey, the minimum number of participants from each company is two.

Among the alumni that participated as respondents, some are working outside of the Sepang district. The reason for including these respondents is because the number of alumni working in Sepang district is limited. The Alumni officer shared the alumni's contact details and the researcher found some contacts on the LinkedIn page.

3.7.1.1 Non-Probability Sampling Methods

In a non-probability sample, participants are not selected based on random criteria as several studies need to apply non-random sampling. Non-probability sampling techniques are suitable for exploratory qualitative research design as they will enable the discovery of more useful insights into the issue being studied. Besides, this method enables the researcher to investigate who are the respondents and if their participation is useful for the study.

3.6.2 Participants of Study

As explained in section 3.5, two categories of participants were shortlisted for this study: the AVM personnel and the alumni of the university who are currently working as AVM personnel. The participants were required to have relevant work experience. As stated in Chapter Three, non-probability random sampling was used to select participants for the study. These participants were from the entities as shown in Figure 1.1, with the selection being performed by following the steps shown in Chapter Three.

The majority of the participants worked under local and foreign aviation companies, which are located in the vicinity of Sepang district. A few alumni participants were based outside of the Sepang district. The figure below presents the demographics of the participants involved in this study, while a detailed description of the participants' demographic is presented in the Appendix.

Table 3.1: Participants Demographics

Age range	23 to 65 years old	
Interview respondents (N= 40)	Alumni: 15	AVM personnel: 25
Questionnaire respondents (N= 100)	Alumni: 40	AVM personnel: 60
Highest level of English education	MUET, IELTS, TOEFL, and degree	
Rank in the current job	Executives and manager	

Figure 3.5: Participants' experience as AVM personnel

Given that the participants comprised alumni members and AVM personnel from various management departments, the age range of the participants was between 23 and 65 years old with a minimum of two years of experience. Although most of the AVM personnel did not have an education background in AVM, as discussed in Chapter One, they were appointed as AVM personnel due to their working experience or because they had undergone a professional development course in AVM.

Table 3.2: Sector, Organisation and Department

Sector	Companies	Department
1) Airline 2) Airport 3) Catering 4) Logistics 5) Manufacturing 6) Air Traffic Control 7) Training 8) M.R.O (Maintenance Repair Overhaul) 9) Airline Customer Service 10) Aviation Authority	1) Malaysia Airline (MS) 2) Pos Aviation (PA) 3) Malaysia Airports Berhad (MAB) 4) Emirates Airline (EK) 5) Korean Air (KA) 6) AirAsia (AA) 7) Malindo Airline (MA) 8) Singapore Airline (SA) 9) Villa Air Private Limited (VA) 10) Brahim Caterings (BC) 11) GE Electric (GE) 12) ATC Department (TD) 13) Brunei Airlines (BA) 14) Cathay Pacific (CA)	1) ACTurnaround Coordinator 2) Commercial Division Executive 3) Regional Hub Development Executive 4) Flight Dispatch Executive 5) Customer Experience 6) Operation Assistant Manager 7) Passenger Marketing 8) Acting Duty Manager 9) Turnaround Coordinator 10) Data Analysis 11) Human Resource 12) Group Safety 13) Airside Operation 14) Training Department 15) Legal Department 16) Call Centre Manager 17) Network Planning and Revenue.

Table 3.2 presents the information related to the aviation sector the participants are involved in and the department they work for in the companies. The list shown above has been summarised from the total respondents who participated in QUAL and QUAN data collection procedures. A detailed list of the participant demographics, which is attached in the Appendix, initially consisted of 50 types of aviation companies in Malaysia (including SMEs). The companies listed above were shortlisted based on a few criteria, which are as follows:

(1) Their status as a multinational aviation company,

(2) The presence of the university students as industrial trainees and employees,and

(3) Previous collaboration with the university in research and development.

Several alumni who established themselves as AVM personnel became the participants in the study. However, to ensure that the alumni selected were able to contribute to the study, the individuals with two years of working experience in the relevant department were selected. Despite the two groups of participants involved, the focus was to establish a descriptive study combining both groups as representatives of aviation training and aviation workplace contexts in Malaysia instead of comparing the two groups. When combining the analysed data for presentational purpose, participants were distinguished through the ID that was assigned to the organisation, such as KA, EK, and others. This step was performed to ensure that the data on the participants identified was maintained as confidential.

3.8 Ethics

This study was conducted following the consent obtained from the University Malaya (UM) Research Ethics Committee. An informed consent form was prepared for the AVM personnel, the alumni members, SMEs, and language teachers participating in the interviews. Participants were briefed about the purpose of the interview and the reason the interview was recorded. Similarly, for the questionnaire survey, participants read a brief description of the purpose of the study and the importance of their participation before answering the survey questions. Ethical clearance was obtained for all the data collected.

3.9 Analysis of Results

Seliger and Shohamy (1989) defined results or data analysis as the process of sorting, examining, summarising, and synthesising the findings gathered from the study to achieve the outcome and conclusions of the study. The results obtained from the QUAL

instruments were analysed manually using the content analysis method. The data from the interview, textbook evaluation, and materials analysis were categorised into different groups and summarised by examining the vocabulary, terminology, and language functions frequently used by the participants.

The survey questionnaire results of the AVM personnel NA were conducted online via the Surveymonkey.com website. The website was used to plan and design the survey and to collect participant responses. After designing the survey, a web link was provided to participants via email and WhatsApp. Surveymonkey was selected for data collection due to its user-friendliness and to ease the tasks of data analysis. It also offered a detailed analysis of the response provided by the participants. The website was a successful choice in conducting the survey as it helped provide an accurate analysis of the results.

The research phases based on this study are presented in Figure 3.1. However, to provide a clearer picture of the NA, gaps analysis, textbook evaluation, curriculum and assessment development process, the findings obtained from the data collection processes were divided and discussed according to the following categories:

AVM Trainees Communication Needs   -   *Chapter Four*

Curriculum Development   -   *Chapter Five*

Assessment Development   -   *Chapter Six*

Even though the data collection was based on the RQs of the study, the findings were presented based on the above chapters to improve the understanding of each stage of the framework.

3.10 Summary

This chapter discusses the methodology employed to conduct the study. Besides explaining the mixed-method approach employed in this study, the chapter presents the data collection instruments, stages of data collection, and process of selecting

participants. This methodology chapter is a crucial chapter of the study to ensure that the RQs are addressed accordingly. The following chapters will discuss the findings and data gathered from the employed QUAL and QUAN methods.

CHAPTER 4: AVM TRAINEES COMMUNICATIVE NEEDS

4.1 Introduction

To address the main purpose of conducting the research, which has been outlined at the beginning of this thesis, an NA was performed, leading to abundant results. As such, it is important to discuss the RQ findings in the three chapters, namely Chapter Four, Five, and Six to systematically present and discuss the most frequent theme and emerging findings, which were gathered from the research participants involved in this study. As explained in Chapter Three, data was collected through semi-structured interviews, a questionnaire, and document analysis. This chapter will focus on discussing the stakeholders' views and feedback about the first research question and sub-questions presented in this study:

RQ1: What are the *communicative needs* of learners in an Aviation Management Training (AVMT) programme?

    a.   What is the job scope of AVM personnel? Who does he communicate with and which skills are essential for performing his job?

    b.   How important is English to the AVM personnel?

    c.   Which English language skill must the trainee master before joining the industry—speaking, listening, reading, or writing skills?

    d.   What are the oral communicative needs of the AVM personnel—speaking or listening needs?

    e.   What are the written communicative needs of the AVM personnel—reading or writing needs?

4.2 Communication Needs of AVM Trainees

In investigating the language needs of the AVM trainees, it is essential to investigate the job scope of the AVM personnel and the needs of using English for professional communication. Based on the nature of the job briefly discussed in Chapter One, the study aims to design a course based on the trainees' English language needs. It is important to confirm the responsibility, tasks, and skills required of the aviation profession and the importance of English for aviation communication. In line with this, Le (2016) emphasised that "ESP is not only related to the professional domain but also embedded in the professional context". Accordingly, the use of English for a specific purpose is not merely focused on knowing the linguistic knowledge and skills required in the context, but it also focuses on the ability to function communicatively in diverse workplace situations. However, in the workplace, the usage of English may vary in terms of the job scope.

The results from the TSA from the interview and survey questionnaire was triangulated to ensure that all the assumptions raised in RQ1 are addressed. Findings from the use of both instruments used will be discussed in stages based on the sub-question listed in 4.1; job scope, the importance of English for AVM job scope, the usage of the four language skills and the oral and written communication needs of AVM trainees.

Stage 1: Job Description of AVM Personnel

According to Staniec (2011), to achieve efficiency in communication while performing the managerial functions in a department, possessing good language skills is crucial. Trainees must be exposed to the professional communication skills required to be able to communicate throughout any turbulent environment in the aviation industry. According to the Society for Human Resource Management (SHRM), a job description, which is also known as job scope, presents a detailed description of the position that includes the skills, tasks, and responsibilities to be performed by the personnel. A job

description provides a clear and concise reference to what is expected of the individual upon appointment for the position, which could be used as a reference for trainees before setting their foot in the industry.

To begin the study, it is essential to determine the communicative needs of AVM trainees prior to joining the industry. It is important to understand the roles of AVM personnel in the organisation, the extent of the AVM personnel communication, and the skills that the AVM personnel should possess to perform their role effectively. In Chapter One, knowledge, skills, and abilities (KSA) are highlighted as the important criteria in the selection of candidates. Therefore, the figure below illustrates three important criteria of a job description, which would be investigated through the NA.
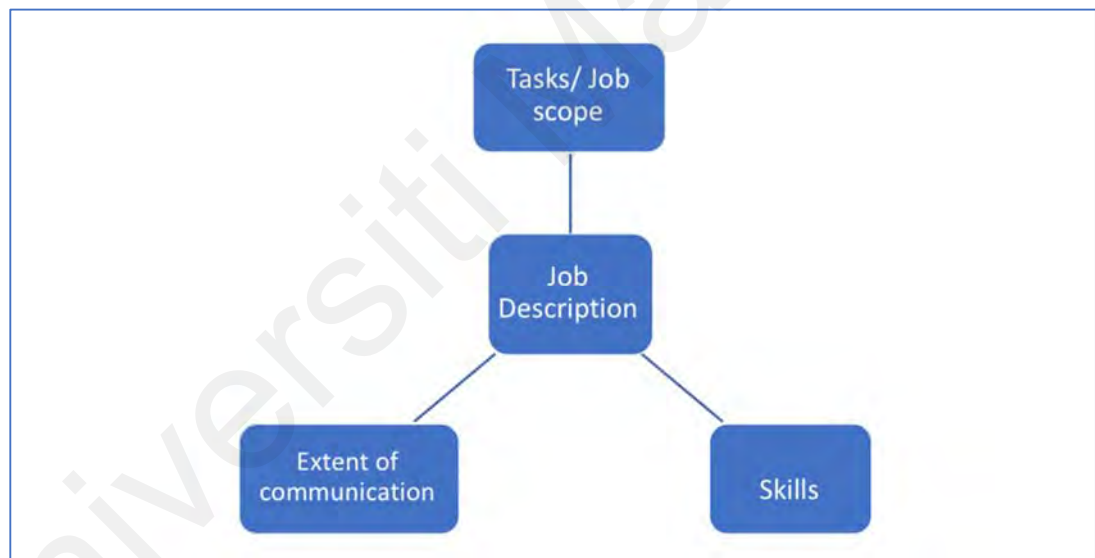
Figure 4.1: Job Description Criteria

The criteria of the job description that would be investigated through the NA are similar to the listed criteria, except for the addition of the extent of communication. The following subtopics are discussed as follows.

A. Job Scope or Tasks

When language is used in the workplace context, the functional aspect of the language is strongly emphasised. This condition focuses on the language and how it is utilised to

perform certain tasks (Ashiquin et al., 2018). The AVM personnel were required to describe their job scope or tasks that they performed at the workplace. The following table lists the tasks or job scopes, which were summarised by the participants of the study.

Table 4.1: AVM Personnel Tasks at the Workplace

Skills	Tasks
Write	Reports concerning operations for management, emails to staff, internal and external parties, business, appointments, goodwill letters, articles, and foreword for internal bulletins, notice, and meeting minutes
Liaise with	Ground handlers, contractors, technicians, engineers, ATCs on aircraft movement, flight status, and external parties to organise training or safety courses
Speak to	ATC to inform about ac layover and flight delay, representatives from engineering, hr, marketing, and other internal departments, clients, vendors, and suppliers
Listen to	Customers', partners', and clients' requirement and requests
Analyse	Weather condition reports and on-time performance (OTP) reports
Check	Checking on airworthiness management, operations
Making phone calls	To coordinate day-to-day activities concerning the resources management, contracts, and equipment to handle lounge, check-ins, and flight delays
Assist	Passengers on making changes on flight reservations and their complaints regarding flight or airport services
Seek approval	From CAAM, flight planning, management
Report	Defect found on airside area or pavement, negligence of the staff, negligence of contractors
Conduct	In house training about safety or work culture, awareness campaign.
Compile	OTP data, information for routine meetings, management, and operations meeting
Issue	Notice of closure, notice of reminder, and notice to inform
Manage	Regulations compliance, business, operations, and employees/manpower or people-related matters, public relation, and emergencies e.g., royalty family travel or transfer of criminals with handcuffs

Negotiate with	Suppliers, vendors to obtain the best deal or rate before signing the contract or formalities
Review	Domestic and international contracts, Standard Ground Handling Agreement (SHGA) terms and conditions, and project implementation
	Job application, suppliers, and vendors quotations and proposals, staff proposals
Organise	Interview sessions, in-house training, safety compliance course in collaboration with ICAO and CAAM
Give Feedback	Domestic and international flight and passengers, complaint, request, enquiry, and compliment
Marketing	Of services and training, sales promotion, products launching, and events
Conduct	Survey and research for improvements on products and services, needs analysis to prepare training proposals
Monitor	Process of flight, political stability of the country, overflight budget, and approvals
Oversee	Legal matters concerning internal and inter-department agreements

Based on the findings from the interview related to the question on the tasks that the AVM personnel were required to perform at their workplace, the AVM personnel carried a considerable amount of responsibilities. Although the tasks could be similar, the context varied according to the department and sector. Therefore, the table above highlights the tasks that should be distributed to the AVM trainees during their study. The tasks could be incorporated through the core AVM courses or English courses. That will be determined in section (importance of English).

B. Skills

The interview respondents were asked to describe the critical skills needed when performing their job and the importance of the skills in their job. The table below summarises the critical skills required to perform the tasks of the AVM personnel.

Table 4.2: Critical Skills Required by AVM Personnel

Critical Job Skills	Iimportance of the Skills	Percentage (N=40)
1. Meeting Skills	• To organise and participate in meetings	100%

2.	Persuasion and Influencing skills	• To persuade teammates on ideas, such as the suggestions on how to reduce delays and reduce the ac turnaround time • To convince passengers, particularly when passengers demand high compensation due to service breakage and inconvenience they encounter	78%
3.	Negotiation Skills	• To negotiate with agents and suppliers on rates and costs • To convince business units and stakeholders by selling ideas • To negotiate with other units for flight departure • To negotiate with passengers on flight changes • To negotiate with potential clients and agencies	65%
4.	Clarifying Skills	• To clarify information concerning agreement, rates, and cost	58%
5.	Discussion Skills	• To frequently discuss with airport authority e.g., to assist passengers with communication problem • To discuss contracts with hotel management to discuss layover or passenger's hotel and lodging due to flight delays • To discuss with airport security to make arrangements	100%
6.	Conveying skills	• To convey information, such as the information regarding flight delay reasons	49%
7.	Creative thinking skills	• To be creative in solving problems • To think of creative ways to solve problems e.g., short of manpower	67%
8.	Problem solving skills	• To solve passenger's problem immediately • To solve departmental problem	56%
9.	Critical thinking skills	• To be critical and specific when planning out a task	56%
10.	Inquiring skills	• To ask questions to determine the real sequence of events of delay	49%
11.	Presentation skills	• To present about organisation safety culture • To conduct presentations on department performance, operations, and new concepts or ideas	56%
12.	Analytical skills	• To analyse situations and respond • To explain the analysis of reports	56%
13.	Interviewing skills	• To identify the skill required to conduct face-to-face or phone interview	45%
14.	Writing skills	• To provide feedback to passengers or clients via email	100%

As shown in the table above, AVM personnel stated in the interview that they possessed approximately 14 critical skills. These skills allowed the personnel to carry out their tasks that are listed in Table 4.1. Among the 14 of critical skills listed, the critical skill that was mentioned by all participants are meeting, discussion and writing skills. This was followed by persuasion, negotiation, clarifying, creative thinking, problem-solving, critical thinking, presentation and analytical skills. Though the participant that mention of the rest of the skills; conveying, inquiring and interviewing skill is less than 50% these skills are still considered as critical skills required by the AVM personnel. As such all the critical skills listed in table 4.2 are equally important for AVM trainees to master. Hence, the findings recommend that the critical skills listed above must be embedded in the proposed English for AVM trainees curriculum.

C. Extent of Communication

An organisation comprises employees who present themselves as independent units. Besides performing their tasks and ensuring their performance, employees are required to maintain mutual co-operation and relations with other units. In the study conducted by Charvatova (2008) to determine the relationship between communication effectiveness and the extent of communication among organisational units, findings from the research indicated that there was a relationship between effectiveness and the extent of communication among organisational units. It was also suggested that AVM trainees should be aware of the extent of communication required in the future profession as AVM personnel.

The extent of communication in the NA was investigated to determine the extent of communication of the research participants, who comprised employees from local and foreign companies. The NA sought to investigate if the AVM personnel were required to communicate with internal staff. Besides, the communication involved external parties

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when performing their tasks. Interview participants selected the extent of communication they are involved in based on the options provided.

Table 4.3: Level of Communication

Extent of Communication	Percentage (N= 40)
Internally	89%
Inter-Department	83%
Domestic	67%
International	83%

Table 4.3 presents the findings on the AVM personnel's extent of communication. Among the four-level listed, the majority of the participants stated that their communication at work involves communication internally, inter-department and international levels. The aviation personnel were not only required to communicate with their colleagues but they were also required to communicate with staff from other departments in their organisation. Furthermore, the AVM personnel were required to communicate with stakeholders. There are two categories of external parties which is the domestic party and the international party. The external companies are the clients, vendors, suppliers, airline companies, and regulators, indicating that AVM trainees need to practise communication. To illustrate this point, the extent of their communication may require them to communicate with foreigners from international companies.

There is a constant gap between employers' needs and graduate trainees' competencies (Ken et al., 2012). However, the gap could be closed if the job description is made known to the course designers and trainees. This section has provided highly important information on the AVM personnel's job description based on the three important criteria that were analysed: the tasks, critical skills, and extent of communication in the AVM profession. The data gathered from the analysis in Stage 1 was essential as it supported the objective of examining deeper into the communication needs of AVM trainees.

Stage 2: English Language in AVM

In the next part of determining the communication needs of AVM trainees, the researcher aimed to explore the language used by AVM personnel for communication at the workplace. To design an ELT or ESP course, language teachers and course designers ought to first determine the importance of the English language, which could be achieved by understanding the uses of English in the workplace.

In this section, NA seeks to investigate:

    a.   EL as communication tool

    b.   EL skills that are crucial

The findings from the interview are discussed below.

A. EL as a Communication Tool

Although all interview participants stated that they only used English as a medium to communicate at the workplace, it was important to examine the factors of EL importance in the aviation industry. Table 1 presents some of the responses of the participants to the question "do you need to use English as a communication tool while performing your job as an AVM personnel, yes or no".

Table 4.4: Respondents' Opinion on the Importance of English Language in AVM

Skill	Importance of English in Using the Skill	Percentage (100%)
Speaking	• Discuss data analysis findings with business units and prepare a report • Speak to international customers via conference calls and face-to-face meetings • Speak during meetings to discuss ways to increase OTP • Speak to business unit representatives • Speak to subordinates on daily operations and businesses	100%
Writing	• Write emails to business units such as the authorities, crew, hotel, airport security, suppliers, catering, and others	88%

Skill	Importance of English in Using the Skill	Percentage (100%)
	• Write proposals and agreements comprising contract terms and contract values • Write management reports that need to be presented to the higher management • Write emails to provide detailed reports on causes of delay	
Reading	• Read proposals and agreements comprising contract terms and contract values • Read annexes and manuals to prepare documentation • Perform detailed analytics for the business development of the organization. • Read emails from subordinates and external parties	65%
Listening	• Listen to passenger queries and complaints • Listen to subordinates and technical crew reporting about delays via phone calls • Listen to presentations at conferences and talks • Listen to press conference announcements by the authority, airline, and manufacturers	55%

Some extracts of participants elaboration on the importance of EL:

"The ICAO .in full... has defined English language proficiency as one of the key skills required to manage unusual, non-routine and emergency situation... so all documents are also in English language." – MS 3

"English language is the universal language right now... all our manuals are in English... .people have to know technical English... that is the English that we need to understand, not the Shakespeare English and they need to have the ability to read." – EK 2

"We have over 50 nationalities in this building... so how will you be able to communicate with them if you can't speak English... because right now English is the common denominator in every language in the world... English is the common denominator." – AA 6

"You will be dealing with not only local vendors or local authorities, but you will be dealing with global vendors global authority." – AA 5

Table 4.4 presents the findings gathered on respondents' opinions on the importance of the English language in performing the AVM tasks. All of the respondents stated that

they used English as a communication tool while performing their job and provided elaboration on the importance of the four language skills. All participants stated that English is used when performing speaking tasks such as speaking to customers, pilots, and technical crews, and stakeholders, speaking during meetings, during discussions and negotiations. Besides speaking, the majority of participants highlighted writing skills (88%). The AVM personnel are frequently required to write emails, for instance, to report on causes of delays and operations, correspondence email to subordinates and stakeholders, write proposals, letters, contract agreements, and write for a press release or magazine write-up. Reading was the third skill regarded as important by the respondents (65%). Respondents highlighted that they need to read and analyse documents written in English, such as emails letters, reports, annexes, manuals, and contracts. The reading task will then proceed with further activities such as discussion, meeting, or negotiations. Listening in English was also stated by some of the respondents (55%) as a skill that is required by the AVM personnel. Although listening is frequently performed when speaking, the AVM personnel sometimes listen solely, such as when listening to passenger queries and complaints and when listening to subordinates report and present their proposal and reports. Based on the analysis presented, the importance of speaking and writing in English is regarded as the most critical skills required by the AVM personnel and followed by reading and listening. In EL teaching, trainees should be exposed to all language skills; therefore, the study will investigate respondents' views on challenges in performing all four language skills. However, the skills that are critical such as speaking and writing, will be emphasized in this study since the AVM personnel highlighted it.

As highlighted above, all interview participants agreed that EL is used as a communication tool in performing their job and needed by AVM trainees to perform their future tasks as AVM personnel. In this case, the following factors were highlighted:

a. English is the lingua franca of the aviation industry

b. AVM personnel need to refer to specific manuals, annexes, contracts, and agreements, which are written in English in most cases.

c. AVM personnel are required to read and write business correspondence documents in English.

d. AVM personnel need to interview and interact with foreign employees, clients, and stakeholders.

e. AVM personnel need to organise or listen to marketing presentations, talks, training press conference, and conferences.

An extension was present regarding participants' responses on the importance of EL in their job scope, the question that followed, the contexts in which participants would use EL as a communication tool, and the type of EL used in these contexts. This question sought to gather the participants' responses about the use of EL and their perception regarding the importance of aviation English for AVM personnel to perform their tasks properly at their workplace. Based on the interview response analysis, there are about 28 different contexts that the respondents highlighted. The contexts are presented below.

Table 4.5 : Types of English Used

Context 1	
Functions of English	Giving Instructions
Physical Context	In the office, via phoce call or whatsapp messages
Social Context	Speaking to staff or subordinate
English Used	Plain English with aviation codes and terminologies.

Context 2	
Functions of English	Talking about delay related matter
Physical Context	Telephone conversation or face to face
Social Context	Speaking to the Flight control department personnel or duty Engineer

English Used	Plain English with Aviation terminologies and jargon

Context 3	
Functions of English	Writing delay reports
Physical Context	Via Email
Social Context	Reporting to Airline station managers
English Used	Plain English and specific aviation jargon and terminology Complex structures

Context 4	
Functions of English	Conducting presentations
Physical Context	In a meeting or conference
Social Context	Speaking to internal staff or stakeholders
English Used	Plain English with business phraseology and specific aviation jargon

Context 5	
Functions of English	Preparing bulletins or email write-ups for internal and external distribution
Physical Context	Via Email or Printed Magazines and Bulletins
Social Context	Speaking to internal staff and external parties such as clients, stakeholders.
English Used	Plain English with complex structure

Context 6	
Functions of English	Preparing Standard Ground Handling Agreement (SGHA)
Physical Context	Contract agreement
Social Context	Exchange of contract terms between service provider and client
English Used	Plain English with legal and aviation terminology

Context 7	
Functions of English	Handling telephone enquiries
Physical Context	Telephone conversation
Social Context	Interaction between aviation personnel and stakeholder
English Used	Business English and with aviation terminologies in some cases

Context 8	
Functions of English	Preparing management papers, proposal and reports
Physical Context	Management Paper, proposal and report
Social Context	Interaction between aviation personnel and management team of the organization and stakeholder
English Used	Plain English with business terminologies and aviation jargon

Context 9	
Functions of English	Reading general emails
Physical Context	Email
Social Context	Reading emails from superior, subordinates or clients and passengers
English Used	Plain English with business terminologies and aviation jargon

Context 10	
Functions of English	Telephone conversation with the pilot; before, during, and post-flight
Physical Context	Telephone Conversation
Social Context	Speaking to the Captain to discuss flight plan
English Used	Plain English with aviation codes, terminologies, and abbreviations

Context 11	
Functions of English	Telephone conversation with the pilot; before, during, and post-flight

Physical Context	Telephone Conversation
Social Context	Speaking to the Captain to discuss flight plan
English Used	Plain English with aviation codes, terminologies, and abbreviations

Context 12	
Functions of English	Discussion with stakeholders
Physical Context	Face to face meeting or virtual meeting
Social Context	Discussion with clients, vendor or suppliers
English Used	Plain English

Context 13	
Functions of English	Discussion with passengers or cargo clients
Physical Context	Talking to passengers in the office, aircraft, lounge, or counter
Social Context	Speaking to upset passengers or clients
English Used	Plain English

Context 14	
Functions of English	Discussion with internal and external personnel
Physical Context	At the office, check-in counter area or airside area
Social Context	Speaking to check-in staff or airport ground handling operators
English Used	Plain English with airline code and terminologies

Context 15	
Functions of English	Meetings with the management team
Physical Context	At the office or other meeting venues
Social Context	Speaking to subordinates or superiors such as the manager, president or CEO
English Used	Plain English and specific aviation or business terminologies and code

Context 15	
Functions of English	Meetings with the management team
Physical Context	At the office or other meeting venues
Social Context	Speaking to subordinates or superiors such as the manager, president or CEO
English Used	Plain English and specific aviation or business terminologies and code

Context 16	
Functions of English	Meetings with superior or manager
Physical Context	At the office
Social Context	Giving daily updates to superiors
English Used	Plain English with aviation code and terminology

Context 17	
Functions of English	Meetings with external parties
Physical Context	At the office
Social Context	Meeting discussion with airport management, ATC, Training Department
English Used	Plain English with aviation code and terminology

Context 18	
Functions of English	Announcing to passengers
Physical Context	At the office
Social Context	Informing passengers about flight delay
English Used	Plain English with aviation code and terminology

Context 19	
Functions of English	Giving updates about operations
Physical Context	Whatsapp
Social Context	Updating the department about the status of the operations
English Used	Plain English, abbreviations, aviation codes, and terminology

Context 20	
Functions of English	Proposing notice to airmen (NOTAM) issuance
Physical Context	Telephone Conversation or email
Social Context	Communicating with the ATC personnel
English Used	Plain English and specific aviation jargon and terminology

Context 21	
Functions of English	Acknowledging an incident report
Physical Context	Reading email or listening to a phone conversation
Social Context	Communicating with the Pilot or Engineering personnel
English Used	Plain English with aviation codes and terminology

Context 22	
Functions of English	Discussion with personnel in a foreign country
Physical Context	Reading email or listening to a phone conversation
Social Context	Discussion with foreign employees working at other station
English Used	Plain English with airline codes and aviation terminology

Context 23	
Functions of English	Discussion about regulation
Physical Context	Face to face meeting followed by email
Social Context	Discussion and negotiating with aviation regulators
English Used	Plain English with a combination of aviation terms

Context 24	
Functions of English	Writing letters for permission and acknowledgement
Physical Context	Letters
Social Context	Communication with CAAM or other regulatory agencies
English Used	Plain English with a combination of aviation terms

Context 25	
Functions of English	Conducting Training
Physical Context	Face to face or Virtual Training
Social Context	Conduct training for employees or external parties
English Used	Plain English with a combination of aviation terms

Context 26	
Functions of English	Conduct Interviews
Physical Context	Face to face or Virtual Interview via Skype or Teams
Social Context	Speaking to Interview Candidates
English Used	Plain English with minimal aviation terminologies

Context 27	
Functions of English	Deliver International talks
Physical Context	Face to face or Virtual Talks
Social Context	Talk presentation to stakeholders
English Used	Plain English with minimal aviation terminologies and codes

Context 28	
Functions of English	Organise or participate in the industry-related event
Physical Context	Conferences or networking sessions
Social Context	Networking with stakeholders
English Used	Plain English with minimal aviation terminologies

The findings presented above describe the functions of English, physical and social contexts in which English is used for communication at the workplace by the AVM personnel and the types of English used. As shown in the 28 contexts presented, English was required in all of the contexts of the AVM personnel job scope. The responses from the majority of the participants highlighted that plain English was often used with aviation codes, terminologies, and jargon. In aviation, plain English is referred General English. In a few of the contexts listed above, the AVM personnel were required to use BE, while

legal terms were used upon matters involving contracts and agreements. However, the usage of legal terms was minimal compared to the contexts where plain English was used with aviation terminologies and codes. The findings have demonstrated that the AVM personnel do not require the use of aviation phraseology like the Pilots, ATCs or Engineers when communicating. The findings suggest the need to expose trainees to the specific type of English AVM personnel required to communicate in the various contexts they may encounter in their future workplace. A GE course with aviation, business and legal terminology may not be sufficient for trainees. The trainees need to know how to use aviation, business and legal topics are discussed based on the communication contexts they may encounter.

Despite one of the respondents, MS 1 stated that there are Bahasa Melayu, the national language was used, such as when speaking or writing to Ministry of Transportation representatives or other ministries. However, he emphasised that the communication that required Bahasa Melayu was minimal compared to the need to use EL for operation and business purposes.

A. EL Skills that are Crucial

Target situation is related to the purpose or achievement of competence and what should be performed by the learners in the process of obtaining English skills (Kardijan, Rafli, and Emzir, 2018). In course designing, language teachers should first investigate the EL skills that trainees need. This information is then used to determine the content of an ESP course. In answering the question regarding the importance of EL skills (speaking, listening, reading, or writing) and the EL skills that the AVM personnel perceived as critical for efficient management of tasks, some of the responses from the participants are as follows.

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"Listening is very critical because most meeting is done via tele-conference. Writing is essential because it is the main task of commercial department: writing forewords, SGHA. All skills are important."- PA2

"Speaking fluently and understanding the message is the utmost important aspect of my job here in airside. Misinterpretation of messages or disseminate of wrong information can contribute to unnecessary delays in aircraft operation or even worst can cause aircraft incident and accident... need to read and comprehend technical reports." – MAB1

"Companies standard practise requires the usage of English for all forms of communication."- AA3

"Especially speaking. We need to listen in order to understand and we need to speak in order to make others understand. Without knowing the effective vocabulary and jargon, I believe we have a barrier in crossing the communication problems in aviation especially. Writing is also significant since we engage with it every day in multiple forms." – VA1

Based on the analysis of the interview responses, all four language skills, namely speaking, listening, reading, and writing, were important for AVM trainees to master. The AVM personnel should to employ EL to perform the tasks related to their jobs. Although EL was not the main language of the AVM personnel, EL was the dominant language in aviation management throughout the world, while aviation involved communication between multi nationalities. The required skills could vary according to the profession. As an example, while pilots and ATCs should focus on speaking and listening, AVM personnel require all four skills. This condition could indicate inconsistencies upon the selection of the existing AE curriculum and teaching materials for AVM trainees as the content varied from the needs of the trainees. Provided that the job description and EL skills of AVM personnel were identified, the next step was to confirm the communication modes that AVM personnel employed to perform their tasks or job scope.

Stage 3: Communication Modes

According to Howard and Brown (1997), trainees need to be introduced to the discourse community of specific subject specialists by creating awareness of the communication modes that are commonly used at the workplace. Communication modes are the media or channels through which communicative intent is commonly expressed to transmit and receive information. However, the information that is decoded and encoded wrongly could cause misinterpretation or misunderstanding of the information. According to Howard and Brown (1997), it is important that the research determines the specific modes of EL communication, which should be undertaken to generate helpful insights and reliable information in designing an ESP course.

In AVM, the most critical communication mode is verbal communication, which is performed through oral and written communications. This section will determine the communicative needs of the AVM personnel by examining the commonly used modes of written and spoken communications in the workplace. Various oral and written communication modes have been highlighted by the AVM personnel, which will be highlighted in the next section. Based on the table below, the list of the spoken and written communication modes was collected from the emerging modes, which were highlighted by the AVM personnel.

Table 4.6: Written Communication Genre

Written Genre	Less Common	Common	Most Common
Letters	28%	23%	49%
Memos (Hard Copy)	29%	26%	45%
Faxes	65%	16%	19%
Internal email messages	0	13%	87%
External email messages	5%	20%	75%
Reports	4%	16%	80%
Minutes	9%	23%	68%
Legal documents/agreements	19%	19%	62%
Notices	10%	39%	51%
Promotional materials	28%	15%	57%
Websites	19%	25%	56%
Proposals	11%	23%	66%

Others: Reading newspaper and WhatsApp messages

Internal email messages are the most common types of written communication, followed by reports, minutes, proposals, and agreements. Similarly, other types of documents shown in Table 4.6 were common among AVM personnel as the personnel were required to produce and comprehend these documents in some cases. An important point presented by an interview respondent from a foreign airline was that the AVM personnel in the organisation were required to use a standardised template for writing emails, letters, minutes, and proposals. These templates were prepared by the corporate communication department and required the users to amend the details according to the context.

Based on the findings presented above, it could be summarised that the AVM trainees were required to receive exposure to all types of written modes of communication listed above. Following is the list of oral communication modes found in the current study.

Table 4.7: Oral Communication Genre

Oral Communication Genres	Less Common	Common	Most Common
Formal meetings/negotiations (i.e. agenda, minutes)	1%	23%	76%
Informal meetings/discussions	9%	25%	66%
Presentations	5%	21%	74%
Conferences/ seminars	15%	23%	62%
Press conference	30%	20%	50%
Job interviews (interviewer/interviewee)	13%	23%	64%
Telephoning	14%	23%	63%
Appraisal interviews (appraiser/appraisee)	16%	34%	50%
Announcements	16%	30%	54%
Briefings	5%	33%	62%
Others: Invitation workshops/meetings			

The findings presented in Table 4.7 demonstrated that participants agreed on the importance of the oral communication modes in their job scope. Formal and informal

meetings and negotiations with clients or customers, presentations, job interviews, telephoning, and briefings were the tasks that required the maximum use of oral communication. Oral communication is essential in performing these tasks. Although press conferences, appraisal interviews, and announcements were also known as town hall sessions, they were the common tasks that required the least oral communication among the AVM personnel. This condition was caused by the frequency of these events and the company's policy on appointing personnel with better oral communication skills and those who were holding a higher position in the company for these events.

Provided that the aforementioned events might involve people outside the aviation industry, it is important to select higher-ranking personnel, such as the CEO with good oral communication skills, to conduct these events. Besides the oral output listed above, participants stated that social interaction at the office and handling passengers and clients were other forms of oral communication required to be performed by the AVM personnel.

Stage 4: Oral and Written Communicative Needs

In exploring the communicative needs of AVM trainees to manage their academic studies and be prepared for communication at their future workplace, further investigation into the specific required language skills is important. The findings from Stage 2 confirmed that AVM personnel required all four language skills to perform the tasks at their workplace. The development of proficiency across all four language skills, namely listening, speaking, reading, and writing, is crucial in meeting specific needs in the profession. However, it is necessary to gain a better insight into the aspects of the four language skills that AVM trainees need to be competent in.

During the final but most critical stage of TSA, the NA was used to investigate the sub-skills needed by AVM trainees. Course designers often applied this information when designing an ESP course. The sub-skills were identified from the emerging tasks shortlisted from the interview with the AVM personnel. Although the common method

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in NA is to investigate the vital language skills, this section will explore the challenges the AVM personnel faced in using EL to perform these sub-skills, provided that all language skills are equally important for AVM trainees. As described by Mahripah (2014), non-native English learners are facing challenges in using English especially in terms of understanding the sound system, context, and use of vocabulary besides the lack of motivation and passive attitude. Hence, the factors affecting AVM personnel speaking, writing, reading, and listening abilities were investigated to enable the researcher to address them in the English syllabus.

4.3 Speaking

The sub-skills listed in the table below have been gathered from the feedback obtained from the interview. Based on the questionnaire survey, participants were required to indicate the difficulty of performing the following sub-skills in EL. Following that, the participants were asked to select whether the sub-skills were challenging, neither easy nor challenging, easy, or not required. The results are presented in the table below.

Table 4.8: Speaking Challenges

Level of Difficulty / Discourse Type	Challenging (%)	Neither Easy nor challenging (%)	Easy (%)	Not Required (%)
Presentations	4	44	52.5	0
Business meetings	7	45	47.5	0
Conference calls	11	38.5	45	5
Video conferences	8	44	44	5
Telephone calls	3	27	70	0
Professional training and workshops	10	35	50	5
Social interactions at office	0	25	75	0

Business negotiations	27	45	27	1
Press briefings	27	36	35	2
Announcements	8	33	59	1
Job interviews	8	31	58.5	2.5
Other:	None			

Table 4.8 presents the opinions of participants when they were faced with challenges in using EL for 'speaking' in various contexts. Results from the analysis demonstrated mixed opinions from the participants. The majority of the participants indicated that the use of EL for various discourse types were 'neither easy nor challenging' and 'easy' in the given discourses. A small group of participants classified the use of EL for business negotiations and press briefings as challenging. A relatively small group of participants classified some of the sub-skills as 'not required', indicating that these AVM personnel were not required to perform these sub-skills at their respective organisation or these tasks were possibly performed by their superiors.

Apart from indicating the difficulty of using EL to perform the above oral sub-skills, the participants were required to select the three most "difficult" speaking contexts based on Table 15. This question aimed to clarify participants' opinion on the speaking sub-skills. The participants' responses on the most difficult speaking contexts are as follows:

1. Speak during conference calls

2. Speak to make announcements

3. Speak during business negotiations

4. Speak during press briefings

5. Speak during presentations

6. Speak during business meetings

The above sub-skills were shortlisted as the skills that participants rated as 'most difficult', as shown in the table. Although the response in the table shows that the majority

169

of the participants rated the speaking sub-skills as 'easy' and 'neither easy nor challenging', it was clear that participants were faced with difficulties in employing the sub-skills to perform their daily tasks.

4.3.1 Challenges in Using EL when Speaking

The next question in this section sought to investigate the possible factors that would cause challenges when the participants used EL to perform these sub-skills. This question also explored the reasons for participants to identify the speaking sub-skills as difficult. When asked to elaborate why the personnel were faced challenges in the above speaking conditions, the emerging responses are as shown in the table below.

Table 4.9: Factors affecting Participants Speaking Ability

Problems/challenges	Percentage (%)
Lack of skills	25
Exposure and practise	17
Lack of vocabulary	17
Pronunciation	10
Anxiety and lack of confidence	9
Different English	6
Accent	2
Departmental issues	7
Nil	7

Table 4.9 is the analysis of the response from 65 participants regarding the challenges they faced when using EL for the above-listed contexts. As a result, the highest percentage factor that affected the participants' speaking ability was the *lack of skills*. The examples of skills included meeting skills, negotiation skills, presentation skills, and skills of initiating small talks. Furthermore, participants were also faced with the challenge of

using EL for the discourse shown in Table 4.8 due to the *lack of vocabulary*, *exposure*, and *practice*. The participants stated that this issue occurred when they were speaking in the required contexts and situations as they did not possess the knowledge about certain general and business vocabulary.

The lack of exposure and practice caused poor understanding among some of the participants regarding what actions to be performed. *Pronunciation*, *lack of confidence*, and *anxiety* were the challenges raised by a relatively small percentage of participants. Although these challenges might appear less important due to the percentage, they should be addressed due to the relation to the overall factor that might affect trainees' proficiency and communication skills. Different English and accents among speakers were the challenges to be taken into consideration. Therefore, the types of speaking activities that the trainees faced difficulties in and the reason they faced the challenges in English speaking activities should be addressed specifically in the current or new syllabus.

4.4 WRITING

In maintaining good business documentation and aviation records, the AVM personnel are often required to prepare written documents. Based on the interview results and the results shown in Table 4.6, the written documents were shortlisted to gather participants' responses about the type of written document that was classified as 'difficult', 'neither difficult nor easy', 'easy', and the documents they were not required to produce ('NIL').

Table 4.10: Writing Challenges

Level of Difficulty / Document Type	Difficult (%)	Neither Easy nor Difficult (%)	Easy (%)	Nil (%)
Reports	12	34	53	1
Business Plans	25	33.5	30	11.5
Emails	6.5	19	73.5	1
Preparing Forms	4.5	30	58.5	7
Meeting Memos	5	21	69	5

Proposals	24	33	35	8
Contracts	33	29	23	15
Letters and correspondence 1- Goodwill messages	6.5	35	52.5	6
Letters and correspondence 2- Negative messages	10	39	43	8
Letters and correspondence 3- Promotional letters	10	30	45	15
Letters and correspondence 4- Persuasive texts	9	40	43	8
Letters and correspondence 5- Enquiry letters	17	23.5	53.5	6
Letters and correspondence 6 - Job applications	8.5	34	48	9.5
Business publicity	25	33	31	11
External written communication (e.g., fax)	11.5	36	38	14
Other:	Project paper, memos			

Table 4.10 presents the participants' opinions about the challenges they faced in writing various job-related documents. The findings demonstrated that the majority of the participants selected 'neither easy nor difficult' and 'easy' for the listed sub-skills. One of the interview participants mentioned that employees in his organisation should follow their company's standard template when writing these documents. It is noteworthy that writing 'contracts' appeared to be challenging for the participants as they were represented with the highest percentage among all the sub-skills. To gain better insight from the participants on the writing needs, the next question sought to investigate the

participants' view about the three most difficult written documents from the listed sub-skills. Participants also added 'project paper' and 'memos' as documents that were commonly required to write. The collected responses are as follows:

1. Writing business plans

2. Writing proposals

3. Writing contracts

4. Writing letter and correspondence - negative messages

5. Writing letters and correspondence - goodwill messages, and

6. Writing materials for business publicity such as annual reports and press releases

7. Writing project papers

8. Writing Memos

The above writing contexts were shortlisted as the most difficult documents by participants due to the need of using them for work purposes. Similar to speaking, even though the findings in Table 4.10 demonstrate that participants rated the writing sub-skills as 'easy' and 'neither easy nor challenging', it was clearer in this study that the participants were faced with difficulties in using these writing sub-skills to perform their daily tasks. These skills were identified as challenging due to several factors, which will be discussed in the following section.

4.4.1 Challenges in Using EL when Writing

After investigating the typically written communication that the AVM personnel were involved in, the next part of the questionnaire asked the respondents to state the factors leading to the challenges they faced when writing the above documents. These factors are presented in the following Table 4.11.

Table 4.11: Factors Affecting Participants' Writing Ability

Challenges/Difficulties	Percentage
Lack of exposure and practise	34%
Inadequate knowledge of writing conventions	27%
Unfamiliar with aviation jargon, business, and legal terms	20%
Difference in English	5%
Other problems	14%

The participants highlighted the shortlisted factors presented in Table 4.11 when the documents shown in Table 4.10 were written for work purposes. It was found that the participants faced difficulties due to the lack of exposure and practice. Though the percentage was lower than 50%, the factor was relevant to be considered the training for AVM trainees, who should be exposed and provided with several practices on writing these documents before joining the workforce.

The next factor that created the challenges among the participants was inadequate knowledge of writing conventions. Among the writing conventions highlighted by the participants were spelling, punctuation, grammar, and paragraphing. Participants also stated that unfamiliarity or inexperience with aviation jargon, business, and legal terms was challenging when they were required to write the documents. Therefore, it was indicated that participants lacked exposure to aviation, business, and legal terms. This situation led to a challenge as participants had to use these vocabularies and terminology when writing the above listed documents.

A relatively small group of participants stated that the difference in English was also a challenge in writing these documents. As discussed in the literature review, participants might face difficulties or confusion about the usage of different types of English, such as British English, American English, Australian English, and Canadian English. Although this aspect seemed less important, EL should expose trainees to different types of English

to enable trainees to have a clearer view. Other problems that affected participants' writing ability were management-related issues, such as dealing with different people and lack of content or data to include in the documents. The factors presented in Table 4.11 were crucial in addressing the issues faced by AVM trainees upon enrolling in the aviation industry with poor proficiency and communication skills. Hence, these factors should be taken into consideration in the English language training for AVM trainees.

4.5 Reading

The next skill that was investigated in the survey questionnaire was the difficulty faced by AVM personnel when reading aviation documents. The list of these documents, which were included in the survey, were the documents that were mentioned by the interview respondents. The results from the survey responses were compiled, with the percentage shown in the table below.

Table 4.12: Reading Challenges

Level of Difficulty / Document Type	Difficult (%)	Neither Easy nor Difficult (%)	Easy (%)	Nil (%)
Annexes	20	35	35	10
Business Reports	11.5	41	44	3.5
Emails	2	22.5	76.5	0
Bulletins	6	22	71	1
Aviation Manuals	27	28.5	36	7
Legal Documents/ Contracts	39	33	26.5	2.5
Letters	5	26.5	66.5	2.5
Others (please specify):	None			

Table 4.12 presents the participants' opinion about the challenges they faced when performing the reading sub-skills, which were parts of the AVM job scope. The majority of the participants' listed emails, bulletins, and letters as sub-skills that are 'easy' to perform. Meanwhile, other participants rated reading legal documents as the most challenging skill among the other listed sub-skills. The next section aims to investigate the participants' opinions on the most challenging sub-skills. Although the response from the participants indicated that reading the sub-skills was less challenging, a different response was recorded regarding the three most challenging sub-skills. The following are the documents that the participants classified as the most challenging to comprehend:

1. Reading annexes,

2. Reading business reports,

3. Reading aviation manuals, and

4. Reading legal documents or contracts

4.5.1 Challenges in Using EL when Reading

Reading may appear as a straightforward skill as it requires the ability to comprehend the contents of the written document. The participants stated that they faced difficulties in reading the above-listed documents due to the factors presented in the table below.

Table 4.13: Factors affecting Participants Reading Ability

Factors	Percentage (%)
Limited knowledge of aviation, business, and legal terms	49%
Lack of exposure and practise	19%
The problem in writing conventions	13%
The difference in English and level of English	9%
Inadequate knowledge on the subject	6%
Others	4%

Comprehension is the basic level in reading that enables the AVM personnel to understand the content of the documents. For the question about the factors or challenges faced by participants when reading the documents listed in Table 4.12, a total of 47 responses were shortlisted and analysed. However, as shown in Table 4.13, these five factors had the most significant impact on AVM personnel when reading. The most crucial factor was the limited knowledge on aviation terminologies, which readers constantly encountered when reading annexes, manuals, or bulletins. This factor was also present in business and legal terms, which were frequently used in the above listed documents, such as business reports, contracts, and legal documents.

The next factor affecting the participants' ability to read the documents listed in Table 4.13 was the lack of exposure and practise, followed by the issue in writing the conventions used in the reading materials. This issue also involved formatting error, punctuation, and the unavailability of proper address. Despite the small percentage, the participants were faced with challenges due to the difference in English, level of English used, and inadequate knowledge on the subject when they were required to read the above listed documents. In this case, the EL teachers should focus on these factors to improve the AVM trainees' reading skills.

4.6 Listening

Apart from speaking, writing, and reading, the survey questionnaire also included a section to investigate the AVM personnel's opinion regarding the difficulties faced upon listening as a work-related task. There are several types of listening tasks that AVM personnel need to perform for work purposes. The list of genres included in Table 4.14 was shortlisted from the feedback obtained from the interview respondents.

Table 4.14: Listening Challenges

Level of Difficulty / Document Type	Difficult (%)	Neither Easy nor Difficult (%)	Easy (%)	Nil (%)
Business presentations in English	16	35	51	0
Telephone conversation in English	20	45	35	0
Video conference in English	16	43	41	1
Announcements in English	4.5	40.5	55	1
Aviation manuals	35	59	6	0
Legal documents /contracts in English	31.5	33.5	35	0
Conference or seminars in English	10	45	45	0
Training conducted in English	6	41	53	0
Other: (please specify)	Public talk in English			

Table 4.14 above illustrates the challenges faced by the participants when employing the listening sub-skills to perform their tasks at the workplace. Based on the results of the questionnaire survey, the majority of the survey participants classified the task as 'neither easy nor difficult' and 'easy' for all the sub-skills listed in the table. However, besides the listening sub-skills listed in the table, the participants classified listening to public talks and speeches by Boeing and Airbus presenters and press conferences by airline CEOs in EL as

challenging. However, similar to other skills, further investigation into the listening sub-skills was necessary, given that listening is one of the most important skills in the AVM profession. The majority of the participants agreed that the following contexts were the most difficult tasks they encountered when listening while fulfilling their job scope.

1. Listening to the recording of aviation manuals

2. Listening to the presentation of legal documents and contracts

3. Listening to video conferences

4. Listening to public talks and speeches

5. Listening to press conferences, speeches, or announcements

4.6.1 Challenges in Listening to EL Discourses

Apart from investigating the challenges faced by AVM personnel when listening to different genres for work purpose, the questionnaire also required participants to state the challenges they faced when listening to the genres listed in Table 4.15. The participants stated the difficulty in listening to these modes was due to the following reasons:

Table 4.15: Factors Affecting Participants Listening Abilities

Factors/Challenges	Percentage (%)
Unfamiliar with aviation jargon and business and legal terminologies	34%
Speakers slang, accent, and pronunciation	20%
Poor proficiency in English	14%
Channel noise	14%
Lack of exposure and practise	10%
Others	8%

The factors in Table 4.15 led to the challenges faced by participants when listening to various types of contexts listed in Table 4.14. The most important factor that affected participants' listening ability was unfamiliarity with aviation jargon, business, and legal terminologies. Upon listening to audio recordings, talks, documentaries, or presentation,

listeners must be familiar with the words or jargon and be able to decode before interpreting the words. The next highest percentage included speakers' slang, accent, and pronunciation. In this case, participants would face difficulty in understanding what was being heard when they received less exposure and practice of listening to foreign or non-native speakers of English.

Another factor of challenge among participants was poor proficiency in English, which was in line with the participants' statement, *"need time to understand what they say.... as a result. I will ask them to write email"*. This condition was indicated through the use of complex sentences by the speakers or range of English vocabulary that the listeners were not familiar with. When listening was involved, participants highlighted channel noise as a factor. Poor telephone lines or internet connection could disrupt the listeners' ability to capture the content of the message. The lack of exposure and practice was the factor shortlisted by a small group of participants. These groups of participants were possibly faced with listening challenges due to the less listening practise received while studying. It was also possible that they had never been exposed to the listening scenarios or contexts.

The above section discussed each of the challenges faced by AVM participants in performing each skill and the challenges faced by AVM personnel upon the use of EL to perform the listed sub-skills. Based on the results, half or less than half of the AVM personnel indicated that using EL to perform most of the sub-skills was less challenging. However, the semi-structured questions clarified the sub-skills that were regarded as difficult, including the factors leading to AVM personnel's statement that the sub-skills were difficult. To ensure that there is no gap in investigating the oral and written communication needs of AVM trainees, it is vital to ensure that all aspects are examined carefully.

4.7 Oral and Written Competency Expected of Fresh Recruits

Apart from investigating the communicative needs of AVM personnel, it was also important to investigate what was expected of fresh recruits. Fresh recruits joined aviation companies upon graduation. Although the AVM trainees completed six months of industrial training before joining the aviation workforce, they might or might not have any idea about the oral and written competency or skills expected by their prospective employers. Thus, it was necessary to explore the specific oral and written sub-skills that were expected of fresh recruits. Section B of the survey questionnaire sought to investigate the AVM personnel's response on the types of spoken and written output that AVM trainees or fresh recruits were expected to produce upon joining the aviation organisations. Findings from the survey are presented in the table below.

Table 4.16: Spoken and Written Output Expected of Fresh Recruits

Spoken	*Written*
1. Responding to interview questions 2. Handling passengers 3. Handling telephone calls 4. Presentations 5. Business meetings 6. Conference calls 7. Social interactions 8. Customer service	1. Minutes/Memos 2. Emails 3. Reports (progress and routine operational reports) 4. Business publicity (annual reports) 5. Letter of correspondence 6. Letter of enquiry 7. Proposals

The table above illustrates the spoken and written outputs that the HR personnel and managers expected fresh recruits to be able to produce. Randomly arranged, all these outputs are the skills sought by aviation employers when hiring fresh recruits. According to one of the participants, "*fresh recruits have difficulties when conducting presentations and speaking at job interviews… communication must be clear, concise, and precise*" (AA4). It is important to note that even though these skills were considered easy or less challenging for AVM personnel (Table 4.9), these skills were listed as crucial for fresh

recruits. While telephoning skills and social interactions were regarded as 'easy' by the AVM personnel, fresh recruits should master the skill at the entry stage of employment.

4.8 Summary

This chapter discusses and presents all findings related to the communicative needs of AVM trainees before joining the aviation industry. This is followed by a discussion and summary of the findings according to the sub-questions posted in response to RQ1. In determining the trainees' oral and written communicative needs, it is important to investigate the job description of the AVM personnel and examine how EL is used to perform job-related tasks. The skills and sub-skills required of AVM trainees were determined. When all the important information was collected, the course designers were able to determine the sub-skills required by AVM trainees and the need for AVM trainees to practise English for aviation purposes. Subsequently, these sub-skills could be applied for their future employment. In the next chapter, the EL training for AVM trainees will be discussed in depth.

CHAPTER FIVE: CURRICULUM DEVELOPMENT

5.1 Introduction

This chapter presents the results on the analysis of the significant themes that emerged upon investigating the EL needs of AVM trainees. The analysis of the themes suggested the PSA of the trainees' needs, the complexities of the AVM communicative needs, including the needs highlighted by the stakeholders specifically for trainees. The chapter highlights the necessity of proposing a new EL curriculum the actions to be done to design the proposed ESP curriculum. This is followed by a discussion on the findings of the PSA to explain the curriculum development stages, with a specific focus on the second research question and the emerged sub-questions.

In light of the communication needs of learners in an AVMT programme, several questions were presented: does the existing English programme prepare these learners for their future workplace requirements? If not, what gaps exist between the existing programme and their future workplace requirement? These questions seek to investigate:

a. What are the opinions of AVM personnel about the existing English course syllabus and the learning materials?

b. What are the gaps between the present curriculum and the needs analysis findings of Aviation Management trainees?

c. What will be the appropriate materials to be considered in designing the English curriculum for aviation management trainees?

d. What are the language functions and jargon/terminologies that need to be included in the English curriculum for aviation management trainees?

The following sections are organised to present and discuss the results of the sub-questions in detail.

5.2 Present EL Courses

Ashiquin et al. (2018) highlighted that despite the professional and formal training provided to graduates, a gap in the graduates' skills and language ability may remain in the real working world. In the majority of higher learning institutions, educators and programme administrators are often required to conduct a needs analysis. However, in the course content of most EL courses, significant gaps are present between the expectations of the prospective employers and the language skills and abilities that trainees could demonstrate.

Following the study findings from a detailed needs analysis of the AVM personnel communicative needs in Chapter Four, the presence of any gaps in the present curriculum was determined, which could be performed in several ways in the present courses. Before the gaps analysis, it is crucial to determine the opinions of AVM personnel about the existing English course syllabus and the learning materials.

5.2.1 Opinion about Present EL Courses Learning Materials

The availability of an abundance of EL textbooks in the market is the major factor for EL lecturers or teachers to employ the existing material for teaching. The role of course material or textbook was extensively discussed in the literature of this study. Mohammadi and Abdi (2014), Brown (1995), and Cunningworth (1995) suggested that the course material or textbooks used for teaching must reinforce institutional aims and conform to the classroom context. In teaching the AVM trainees, the compulsory textbooks are used by the lecturers. Table 5.1 below presents the list of textbooks that are currently used by the trainers in the institution.

Table 5.1: List of Teaching Materials and Aviation English Coursebook

Textbook Title	Level
Fundamental English (by in-house lecturers)	Level 1
Business Writing (by in-house lecturers)	Level 2
Academic Report Writing	Level 3
Aviation English–Macmillan	An AE textbook that has been designed for Pilot and ATC. Available in bookstores

The textbooks used for Level 1 and Level 2 are the materials produced by in-house EL lecturers from different specialisation faculties. The content and topic of the textbooks are based on GE course learning outcomes, which are meant for the use of undergraduate degree students from various programmes. The course objectives and predicted outcome have been clearly stated in the Fundamental English and Professional English 1 textbooks. However, the textbook used for Level 3 was not developed by in-house trainers and has been selected as a textbook as it covers the Research Writing topic, which is a part of the syllabus. Therefore, the document containing information about the course was shown to the participants involved in evaluating the present EL course.

Besides evaluating the compulsory textbooks used in the present course, the study included findings from the evaluation of an AE textbook. The AE textbook stated in the list is a sample of an AE textbook, which has been designed for pilots and ATCs based on the ICAO compliance requirement. The AE textbook was included in the evaluation to gather participants' feedback about the appropriateness of adopting the available AE textbook for AVM trainees. During the early stage of the study, some AVM subject matter experts (SME) suggested the use of AE textbook as it covered aviation topics. The AE textbook was reviewed by the language teachers in the early stage of selecting the course teaching materials due to the limited availability of AE textbooks in the market. However, the content and topics covered in the AE textbook were narrowed down to the job scope of pilots and ATCs. The AE textbook was included in the evaluation to confirm AVM

personnel's opinion on the textbook. Provided that the AVM personnel were involved in the NA, they were required to review the textbook to evaluate the suitability of these materials.

To evaluate the present EL course and the teaching materials listed in Table 5.1, the interview participants were contacted for the second time. However, due to the mass retrenchment and restructuring occurring in most of the aviation organisations as a result of the pandemic, obtaining the involvement from all interview participants was challenging. To illustrate, only 10 of the interview participants agreed to be involved in the evaluation procedure. A face-to-face meeting was set, and the textbooks were brought to the meeting venue. After a brief explanation of the process, participant began to evaluate the textbooks. The textbooks listed in Table 5.2 were evaluated based on the criteria discussed in Figure 3.6. The participants' feedback on the textbooks is discussed on the next page.

Table 5.2: Course Textbook and AE Textbook Evaluation

Textbook title	Subject and Content (relevant/ not relevant)		Language type & functions (useful/not useful)		Skills		Activities	
	Relevant %	Less & Not Relevant %	Useful %	Not Useful %	Sufficient %	Insufficient %	Useful %	Not Useful %
Fundamental English (FE)	43	71	71	29	30	70	40	60
Professional English 1 (PE1)	57	43	60	40	30	70	57	43
Professional English 2 (PE2)	57	43	57	43	29	71	29	71
Aviation English for Pilots and ATCs (AE)	29	71	29	71	43	57	40	60

Table 5.2 above presents respondents' opinions on the current course textbook and AE for pilot and ATC textbooks. Based on the findings, it is noteworthy that the participants presented mixed responses regarding the subject and content, language type functions, and skills and activities of the textbooks used by the AVMT. The majority of the participants agreed that the FE textbook subject and content had less to no relevance, while the language types and functions covered were useful. Similarly, the skills covered in the textbook were insufficient, while the activities were not useful for AVM trainees.

As for PE1, the majority of the participants agreed that the skills covered were insufficient for the trainees. Similarly, the majority of the participants for PE2 agreed that the skills covered were insufficient, with the activities not being useful to trainees. In terms of the subject and content of the AE textbook, the majority of participants agreed that it had less to no relevance, while the language type, functions covered, and activities included were not useful for the trainees. The participants elaborated on their views and details regarding the interviewees' opinion on each of the criteria of textbook evaluation, which are presented as follows.

- *Practicality of Subject and Content*: The participants were asked if the subjects or topics were included in the textbook and if the content was practical for the AVM trainees. This was followed by a question about the relevance of the subject and content of the textbook, including the reality and variety of the subject and content. Besides, participants were asked whether the materials were biased or portrayed any negative stereotypes or vice versa. Although the majority of the participants perceived that the textbook should cover interesting, challenging, motivating, and various aviation management-related topics, the textbook showed the opposite features.

The participants highlighted that Level 1, 2, and 3 textbooks did not enrich the trainees' overall understanding and awareness of the language used by AVM personnel. It was also claimed that the topic and content were basic based on the parts of speech and writing of simple sentences and compound sentences. The course content did not expose trainees to targeted aviation communicative needs, such as reading manuals, writing business proposals, and others. In reviewing the AE textbook, participants preferred the idea that the content was based on daily themes managed by pilots and ATCs deal. However, the textbook was more suitable for pilot and ATC use. To illustrate, while the content comprised the meteorology and navigation theme, the job description of the AVM personnel did not require the AVM trainees to learn about meteorology.

- *Language Type Functions*: Participants were asked to examine the language used in the textbooks to determine if the language used was sufficient to perform the AVM tasks and included the criteria that were explored in Chapter Four. The participants claimed that the textbooks were lacking the authenticity of aviation language that the AVM personnel needed to use in their daily jobs. The AVM personnel also claimed that the language used in the textbooks should include aviation abbreviations, terminologies and jargon, and the relevant aviation business and legal terms. The participants asserted that in Level 1, 2, and 3 textbooks, the language was more inclined towards GE. As for the AE textbooks, the participants claimed that the language type and functions used were specific for pilots and ATC. Nevertheless, the majority of the participants highlighted that the AVM course materials should mirror the language and functions used in the AE textbooks, with themes related to the AVM job description.

- *Skills*: The majority of the participants claimed that the Level 1, 2, and 3 textbooks did not cover the listening and reading skills and some of the speaking and writing sub-

skills. The AVM personnel claimed that the skills presented in the Levels 1, 2, and 3 textbooks did not include the reading of extracts of authentic documents, while the writing skills should include AVM relevant genres, such as business proposals, management papers, and advertising materials that were not included in any of the three textbooks. Moreover, the content of the textbooks did not include most of the critical skills required by AVM personnel. In respect of the AE textbook, the EL skills covered in the textbook were more focused on fulfilling the language needs of pilots and ATCs. Participants added that the textbook or learning materials should be designed to address the skills that were deemed important for the trainees.

- *Activities*: The participants reviewed the activities in the textbooks. The activities in the textbooks were typical EL activities, which included grammar enhancement exercises. However, the majority of the participants agreed that the tasks and language exercises should be modified to engage trainees in the use of EL to perform the exercises related to tasks, which the trainees were expected to perform in their professions. The AVM personnel stated that the activities should be inclined towards providing exposure to trainees on the importance of EL competency for their future work purposes. Moreover, the activities in the textbooks should be more engaging through documentaries and talks conducted by reputable aviation industry leaders, including the increase in roleplaying of workplace scenarios and activities that encourage communicative and meaningful practice. Participants also suggested the addition of outside classroom activities, such as visits to the hangar, airport, and other sites, which would allow trainees to be exposed to workplace conditions. The trainees would need to write the proposal, letter, and email while preparing for a visit to these sites. Nevertheless, the majority of participants agreed that the AE textbook exhibited highly structured and interesting activities, which could

be used as a guide when designing the activities for AVM trainees to practice their EL in relation to AVM contexts.

The results of the evaluation of the textbooks demonstrated clear inconsistencies between the content of the course textbooks with the programme outcome and students' present learning needs. Besides the semi-structured questions, an open-ended question was also included to obtain participants' opinions on the textbooks.

"The Fundamental English textbook is not practical, as the content of the textbook shows that it is much more relevant for elementary level students" — AA3

"All books are rated sufficient because they contain knowledge of the language. However, the content and topics do not seem to be engaging, interesting, or effective for use as a mode of delivery to students these days. It is also not in alignment with the technology and communication prevalent these days." —AA2

Although the primary purpose of the inclusion of EL courses in the programme is to improve graduates proficiency, the EL course content of specialised programmes such as AVM and the teaching materials must enable trainees to use EL in workplace contexts. The subject and topics of the textbook, the genres and language functions, skills and activities should replicate the actual workplace To summarise the above findings, the participants agreed that the course content and textbooks were not suitable for AVM trainees. The next section of the PSA will offer more insights into the gaps in the present course curriculum.

5.2.2 Present Course Curriculum vs Communicative Needs

West (2003) expanded the view of needs analysis when he developed ideas for the taxonomies of this analysis. One of the taxonomies was deficiency analysis (DA), which was employed in this research due to the importance of determining what was lacking in

the present curriculum before proposing the revision of the curriculum or course content. It was important to analyse the gap between the actual communicative needs and the present trainee curriculum and to gain feedback from the alumni who studied the course.

As discussed in Chapter Three, one of the instruments used in the study was the survey questionnaire. The findings of the sections are mostly discussed in Chapter Four, however, the questionnaire ended with a section for participants to indicate their suggestions for improvement based on the topics to be included in the course. This section seeks to investigate participants' opinions on the content that should be included in the EL course, which is offered to the AVM trainees. The sub-skills and topics included in the suggestion list are compiled from the skills tasks. This is followed by the suggestions presented by the participants. The detailed result is shown in the appendix, while the summary of the skills and suggested sub-skills are as follows.

1. Reading aviation manuals and annexes

2. Reading delay reports, investigation report

3. Comprehending and filling out request and report forms

4. Reading and comprehending requests, complaints, and reports

5. Reading and comprehending aviation news and bulletins

6. Reading and comprehending aviation terminology and vocabulary items, abbreviations, and acronyms

7. Reading and comprehending business, legal terminology, and vocabulary items

8. Writing emails for daily updates on operations, training, and announcements

9. Writing job application documents

10. Write business proposals and plans for aviation-related services

11. Writing business correspondence letter (e.g., to inform, complaint, apologise, goodwill, and negative messages)

12. Writing legal contracts and agreements

13. Writing promotional materials for magazines and website

14. Listening and comprehending aviation industry documentaries or multi-media documentaries

15. Listening and comprehending aviation presentations

16. Listening and analysing aviation press conferences

17. Satisfactory communication with co-workers

18. Discussing contract terms and business proposals/plans with staff and clients

19. Communicating via video conference with colleagues and clients

20. Speaking during oral presentations, business meetings, and business negotiations.

Besides the suggestions of topics from the survey questionnaire, the list of sub-skills and topics suggested from the interview was analysed and shortlisted. According to the interview respondents, the EL course for AVM trainees should include the following topics and sub-skills to prepare them for the effective performance of tasks at their future workplace.

1. Reading and comprehending graphic information: tables, diagrams, charts, and graphs

2. Reading actual documents samples from the workplace: manuals, annexes, bulletins, emails

3. Reading actual reading materials from the workplace: reports, news on the latest technology, and development

4. Writing reports and contract/agreement based on templates (e.g., models to follow in a future writing)

5. Writing practices (via assignments, in-class activities, etc.)

6. Apply knowledge of industry jargon, terminology, and phrases for daily communication practice

7. Skimming and scanning to find the required information quickly

8. Coping with aviation terms and abbreviations and recognising their definitions

9. Understanding basic business and legal vocabulary and terminologies

10. Speaking practices (via role-play, public speaking, site visit, etc.)

11. Making notes from academic texts

12. Writing letters of different types for various purposes (e.g., summary, explanation, definition, cause and effect, comparison and contrast);

13. Writing short sentences, paragraphs and lab reports;

14. Writing clearly, taking care of spelling and cursive handwriting;

15. Listening to and comprehending academic lectures and discussions;

16. Comprehending spoken instructions in a range of natural pronunciation;

17. Applying critical skills, such as negotiation skills, clarifying skills, information seeking skills, briefing skills, conveying skills, discussion skills, conveying skills, and other critical skills.

The skills listed above summarised the NA and gap analysis findings presented in Chapter Four. This list also comprised the skills and subskills required by AVM personnel to make use of their English language skills in professional life.

The next step was to conduct a DA of the present curriculum content and the actual communicative needs of AVM trainees. The analysis was performed by comparing the findings obtained in Chapter Four, with the main focus on the analysis of AVM trainees'

EL needs, writing, speaking, reading, and listening skills. The deficiency analysis table is presented in Appendix J. Based on the DA, the current curriculum presents discrepancies between the expected outcomes and actual learning achieved. The present curriculum covers some aspects of AVM trainees' communicative needs on the minimum level. Besides the DA, open-ended questions were included to investigate the alumni participants' opinions on the EL courses they enrolled in and how the courses assisted them in their job. As a result, some of the feedback received is as follows:

"Course content could have been delivered based on aviation subjects. The course content was too general and doesn't help students" – MS2

"No... The programme itself is a good fundamental course on AVM... but the English subjects... lack exposure on AVM content and terminology." – PA2

"I learn more about the language skills required from attending the job training organized by the company... the training conducted is based on a real-life situation that we need to encounter unlike the class during degree."- SA1

"I have to learn most of the communication skills on my own upon joining the department." – MAB1

The feedback from the alumni participants indicated that the present course content did not meet the actual communicative needs. Most of the alumni resorted to learning EL on their own or enrolling on the courses offered by the training department. Despite the in-house communication training courses offered by some organisations, trainees should be equipped with the fundamental skills prior to joining the aviation departments. Included in the EL curriculum, these skills will enable trainees to enhance their abilities and convince prospective employers of their capabilities.

In ESP, course designers and language teachers are required to continuously revisit the curriculum to ensure that industry requirements are fulfilled and most aspects of the job communicative needs are addressed. These actions will keep the trainees abreast with the current competency and proficiency required by the related organisations and industry. Given that this study was the first study to be involved with the AVM trainees of the institute (UniKL), the findings would be used to propose a new ESP course with a curriculum that meets the trainees' needs.

5.3 Designing the ESP Curriculum for AVM Trainees

As stated in the introduction, besides investigating the gaps in the present curriculum, this study aims to propose an ESP curriculum for AVM trainees. The proposed ESP curriculum for the AVMT is known as English for Aviation Management Trainees (EAVM) course. As discussed in the literature review, the development of the EAM curriculum is based on the task-based approach. The study applied research and development methods with reference to the ADDIE model, as shown in the following diagram.

Design

- Framework for proposed curriculum
- Materials and language functions to use in designing the course

Analyse

- Topics and activities AVM personnel suggest for trainees
- Task-based topics for teaching

- Sample of task-based teaching materials
- Sample assignments/ activities

Develop

Evaluate

- Feedback from stakeholders
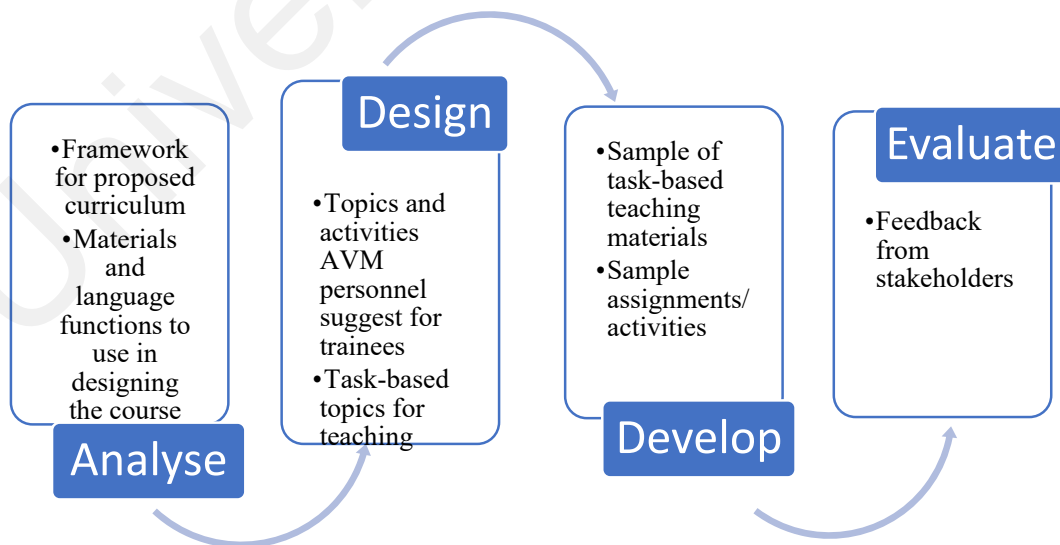
Figure 5.1: ADDIE Model for EAM Curriculum Development

The EAM curriculum development involved four phases although the implementation by employing qualitative and quantitative instruments was excluded. The exclusion took place due to the involvement of trainees in this stage. However, it was impossible to implement the curriculum with trainees to confirm stakeholders' opinion regarding the proposed curriculum as the trainees possessed little to no relevant work experience. The analysis was based on document analysis and descriptive statistics. The findings from the analysis will be discussed based on Figure 5.1.

ANALYSE

In designing the EAMT curriculum, it is important to ensure that a framework that can be analysed is present. A curriculum framework provides the course designer or language teacher with an idea for the development of a suitable course. Given that the study was the first study in its field, the proposed framework was developed based on the trainees' expected communicative needs.

Table 5.3: Framework for Proposed Curriculum

Skills	General Recommendations on the Learning Outcomes for the Proposed Syllabus "At the end of the course, trainees should be able to….
Speaking	- Communicate using various language functions, such as welcome message, request, offering, taking messages on behalf of others, and apology among others. - Conduct effective communication with employees, business units, and clients/stakeholders through small talks - Negotiate in various situations and learn useful phrases to reach an agreement - Apply strategies of making conference calls and speak over the telephone - Deliver efficient presentations - Participate effectively in meetings
Writing	- Produce business documents, such as business plans, proposals, letters, management paper and memos, and E-mails according to aviation industry practices - Demonstrate competence in sentence construction, sentence variety, and word choice (general English, aviation, business, and legal terms)

		• Demonstrate correct English usage, grammar, and mechanics • Construct negative messages to delivering information on delays or incidents
Listening		• Distinguish between the characteristics of speakers' different accents and pronunciations • Comprehend aviation presentations • Analyse press conference addresses, talks, and forums by aviation leaders
Reading		• Read and comprehend information from aviation-related materials, such as manuals, annexes, and bulletins • Skim and scan business documents, such as contracts/agreements and aviation news • Interpret non-linear text, such as diagrams, tables, charts, and graphs • Read business articles on technology and advise on problem-solving and about companies
Vocabulary		• Learn the strategies to understand vocabulary in the text • Use correct forms of words in their oral and written language production • Practise the use of aviation terminologies (specialist vocabulary), abbreviations, and business and legal terms to enhance proficiency in reading and listening to academic texts, writing, and speaking

In this study, the framework for the proposed curriculum was developed based on the TSA and PSA findings. This framework was applied as a guide in the selection of materials to be used, language functions to be included, content and teaching topics development, and sample lesson preparation.

5.4 Materials Analysis

According to Khoshhal (2018), upon the development of an ESP course, the selection or writing of the teaching materials should be in line with the programme objectives and needs, which require the authenticity of the activities and tasks. However, the opinion regarding the adoption of authentic materials might be different. Generally, several views agreed with the idea to adopt authentic materials for the development of the course teaching materials, while some views were opposed to this idea as it might seem inappropriate or because the authentic materials were controlled documents. As such, the

question was included in the survey questionnaire to gather participants' opinions. The findings obtained are presented in the following tables.

Table 5.4: Suggestions for the Reading and Writing Teaching Materials

Type of Material	Most needed
Actual document samples from the workplace	85%
Actual reading documents/materials from the workplace	81%
Writing templates (e.g., models to follow in future writing)	84%
Writing practices (via assignments, in-class activities, etc.)	87%
List of industry jargon, terminology, and phrases for practise	88%

Table 5.5: Suggestions for Speaking and Listening Teaching Samples

Type of Discourse	Most needed
Industry documentaries (e.g., video records for business meetings/negotiations/presentations in workplace)	69%
Multi-media documentaries (e.g., models to follow in future spoken communication)	78%
Actual presentations (via presentations, in-class activities such as role-plays, etc.)	84%

The results in Table 5.4 and Table 5.5 demonstrated that majority of the participants agree that in developing the EAMT reading and writing topics, authentic materials, such as the documents used for work purposes, should be applied as a reference. It was added that the existing written templates and list of industry jargon, terminology, and phrases should be used as guides during the preparation of lessons and course teaching materials and activities. In respect of speaking and listening, the proposed curriculum should include lessons on speaking practise by watching sample videos on meetings, negotiations, and presentations skills. The participants unanimously agreed with the suggestion to include lessons in the multimedia documentaries on aircraft briefing or press conferences to enhance their listening skills. The information on the types of materials for reading, speaking, listening, and writing was employed to gather the materials in this study.

As discussed in Chapters One and Two, the aviation industry is a highly regulated industry due to security reasons. Therefore, gaining access to the documents or materials to perform the reading and writing communicative tasks is not a simple action. Documents such as emails, letters, contracts, proposal, and several other documents are considered private and confidential documents of the organisations, therefore, sharing is prohibited. Similarly, all other documents are not allowed to be shared, including video and audio recording in speaking and listening situations for any reasons. However, the exception is given for certain annexes and notices that could be accessed from the aviation libraries and downloaded from the ICAO and International Air Transportation Association (IATA) website.

Meeting the participants for the oral interview and administering the survey questionnaire to the participants become important to access to the premises of the aviation organisations and obtain written permission from the participant to state the purpose of the meeting. This should be presented to the officer at the entrance security post to gain an entrance pass. Therefore, it was not possible to create any forms of video recording for observation in this study. However, the majority of the participants were permitted to record the oral interview as they had read the consent form, which was provided before the interview.

The study was also supported with written permission from the university, while participants were assured when signing the consent form that all information would be kept confidential. With this approach, several authentic documents could be gathered. Furthermore, sample materials were collected to analyse the language functions used and determine any evident grammatical aspects in the AVM documents. The collected samples, which presented written communication, are attached in the Appendix. Below are examples of extracts from the collected sample materials and how the analysis was performed.

Email extract from assistant airline station manager to business units

*EM346/16 Apr after **arrival** activity completion (**ATA** plus 90 min) flight **will be towed to a remote stand**. **For departure EM**346/ 17 Apr, AC must be ready to be towed **from** remote stand to **bay at ETD** minus 3 hours 30 min. The AC **must** be ready at the bay **and** all doors open ETD minus 3 hours.*

Letter of Invitation—Extract from ICAO Special Implementation Project Invitation letter

*"I have the honour to inform you that ICAO **will** be holding a workshop on the development of a national performance network **for** air navigation systems **under** the programme of Special Implementation Project (SIP) established **by** the Assembly. The workshop hosted by the Civil Aviation Authority of the Fiji Islands (CAAFI), will be held **from** 28 March to 1 April 2018 at the CAAFI Conference room, Fiji Island. I hereby **extend an invitation** to your administration to participate in this workshop".*

IATA Book of Codes—Extract from Dangerous Goods Manual

*The regulations include a detailed list of individual articles and **substances** specifying the **UN** classification of each article or substance and their acceptability for air transport as well as the conditions for their transport. **Since** no listing can be complete, the list also includes many generic **or** "not otherwise specified" entries to assist in the classification of those articles or substances not listed by name.*

Standard Ground Handling Agreement (SGHA)—Excerpt

*Check travel documents for the flight(s) concerned. **In the event that** the Handling Company does not have access to information **that** verifies **visa** validities, the Handling Company will not have **liability**. The Handling Company **shall** not be **liable** for*

*immigration fines in the event of **non-bona fide** travel documents or other events, **which***

are outside of their control.

According to ICAO, documentation is the key component and backbone of the Aviation Safety Policy. All forms of written communication in aviation are normally kept confidential, given that aviation is a highly regulated industry. The examples of excerpts presented above are some of the materials used by the AVM personnel. Based on the excerpts above, it could be construed that are several important characters are present in the materials used by the AVM personnel. The following characters are illustrated as follows:

Conjunctions—for, since, or, in the event that, which, that, by

Auxiliary verb—will, must, shall

Preposition—from, at, to, and, or, under

Aviation terminology—tow, bay, remote stand, arrival, departure, substance, visa

Abbreviations—ATA, EM, AC, ETD, UN

Business expression and collocations—honour to inform, extend an invitation,

performance network

Legal term—liability, liable, non-bona fide

Language functions—giving information, giving instruction, giving advice, giving

clarifications, making predictions

Tense—active voice for communication through email and letters and passive voice

for reporting and legal agreement

Based on the list above, it could be summarised that the written communication of AVM personnel requires the use of GE, abbreviations, aviation terms, jargon, and the occasional use of legal and business terms (for external communication). Besides, the AVM personnel require the use of sentence structure rules in the active and passive voice depending on the type of document being produced.

5.5 Language Functions, Terminologies, and Jargon

Based on the example of extracts shown in the above section, it is important to note that abbreviations and aviation terms and jargon are common in most documents used by AVM personnel. In the majority of aviation manuals or annexes, a few designated pages are present to illustrate the hundreds of abbreviations and terminology used in the documents. Besides, most aviation organisations provide a standardised list of abbreviations for the use of internal and external, oral, and written communication. Based on a list obtained from one of the organisations (refer to Appendix L) and the material analysis performed in Section 4.3.3, the common abbreviations and terminology were listed. The list was included in the survey form and administered to some of the alumni and AVM personnel to confirm the usefulness of the abbreviations and terminology for the proposed ESP teaching. Some of the common abbreviations and terminologies used are as follows.

Table 5.6: Abbreviations and Terminology and Jargon

Abbreviation from Manuals, Annex and Email	Terminology/Jargon from Legal Agreement, Email and Manual
INOP—Inoperative	Revert
IATA- International Air Transport Association	Inbound
MEL—Minimum Equipment List	Chock
AOG—Aircraft on Ground	Bonafide
REPO—Repositioning flight	Layover
OTP—On-Time Performance	Terminal
MRP—Minimum Rest Period	Touchpoints
SMS—Safety Management System	Bay
PBB- Passenger Boarding Bridge	Hub and spoke
STD- Standard Departure Time	No show

In most aviation organisations, a range of aviation abbreviations is developed for use among pilots, ATCs, engineers, and other personnel. This list demonstrates a slight difference between the organisations due to the type of English used and the safety policy of training and companies. For instance, the word 'hub and spoke' is not a common jargon

for some AVM personnel, however, it is useful for other organisations. Therefore, trainees should be exposed to a range of abbreviations, jargon, and terminologies, and be trained to use these abbreviations and jargon through speaking, reading, listening, and writing activities.

In contrast to engineers, pilots, and ATCs, the AVM personnel are not required to memorise the entire list of abbreviations developed by the organisation. Some of the abbreviations and jargon are specific for pilots, ATCs, and engineers only. The AVM personnel are required to memorise certain abbreviations, jargon, and terminologies, which are compulsory for work-related tasks. The complete list of abbreviations and jargon or terminologies is included on the reference page.

DESIGN

In explaining the objectives of conducting the study, the study illustrated the importance of investigating the communicative needs of AVM trainees based on Figure 1.2. The AVM personnel could work in the airline, airport, cargo, and ATC management. After examining the TSA and PSA results, the EAMT course design stage is illustrated in Figure 5.2.
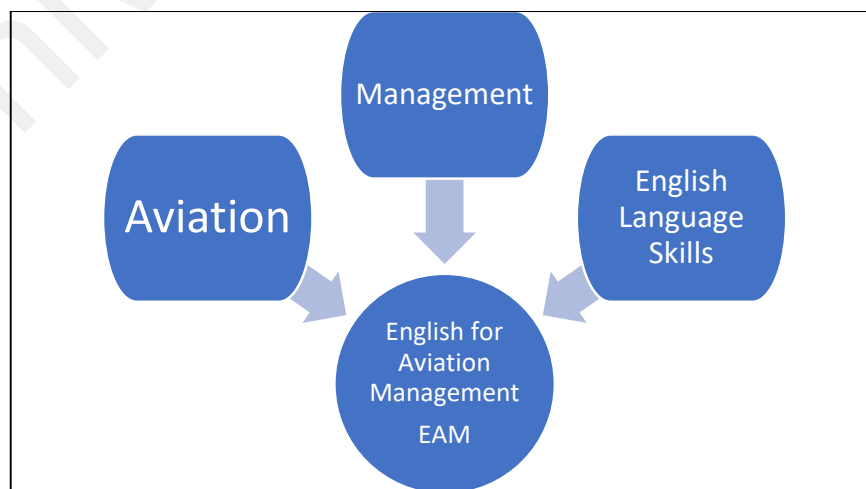
Figure 5.2: Model of Proposed Curriculum

The model above illustrates the proposed EAM programme curriculum. As discussed in Chapter Four, the AVM personnel is required to manage aviation-related matters, such as airline, airport, logistics, ATC operations, flight operations, and other areas. Furthermore, there are AVM personnel who need to manage the business, marketing, HR law, customer service, and other managerial tasks of the aviation organisation they work in. Therefore, the model of the proposed curriculum must include these two core subjects in the proposed curriculum for AVM trainees. The proposed model included English language skills, given that it is the aviation lingua franca. Accordingly, this study aims to develop an English course that is relevant to the needs of the AVM trainees. The model was designed based on the participants' feedback on the importance of EL skills, aviation knowledge, and other relevant topics (refer to Chapter Four).

The inclusion of aviation-related subjects, and the business, legal, and HR topics in the EAM courses is important. However, not all aspects of these subjects should be included in the EAM curriculum. Similarly, the English language skills that were incorporated in the study were the desired level of proficiency and critical skills listed in Table 4.4. This was followed by an investigation of the topics and activities to be included in the proposed curriculum.

5.6 Topics and Activities Suggested for AVM Trainees

With regards to the communicative needs of AVM trainees, which were identified from the interview analysis in Chapter Four, all four skills and related sub-skills are important for AVM trainees. However, to determine whether the sub-skills should be included as the topics in the proposed curriculum, a close-ended question was used to analyse participants' agreement on "the teaching topics to be included in the proposed EAMT curriculum". The participants' opinions were sought due to their experience of working at the junior position when the alumni joined the industry as fresh recruits.

Participants' responses were analysed using percentage statistics (refer to Appendix). The majority of the participants confirmed that all the sub-skills were important for AVM trainees and must be included in the proposed EAMT curriculum. Provided that the trainees should enrol in three levels of English courses as per MQA requirement, the topics were segregated based on the level of complexity.

As for the activities to be included in the curriculum, the activities presented in the table have been listed according to the participants' suggestions. The respondents also suggested the inclusion of site visits, public speaking, role-playing, listening to conference talks and press conferences, writing management papers, on-the-job training, the practice of business meeting skills, and participation in video chats or conference calls as the activities to be included in the proposed ESP programme for AVM trainees.

Table 5.7: Current Activities and Suggested Activities

Current EL Activities	Suggested Activities
➢ Presentation ➢ Writing review – article/ movie ➢ Proposal writing ➢ Meeting documentation and mock meeting ➢ Job application documents and mock job interview ➢ Academic research report ➢ Industrial visit report	➢ Site visit ➢ Roleplay ➢ Reading manuals and contracts ➢ Business meeting skills ➢ Writing management papers ➢ Business presentation skills ➢ Telephone skills ➢ Video chat or conference calls ➢ Listening to conference talks and press conference

As seen in Table 5.7, some of the suggested activities have been implemented in the present curriculum, such as presentation skills and meeting skills. However, most of the activities suggested by the participants, including reading manuals and contracts, writing management papers, attending conference calls, and listening to a conference presentation or press conferences, were new ideas that could be considered in task-based ELT. Nevertheless, to ensure that the purpose of the inclusion of these activities into the

curriculum was achieved, the activities should be aligned with the course content and topics.

DEVELOP

The above sections illustrated how the analysis and design stages were performed. In the development stage, the study presented how the proposed course curriculum was developed.

5.7 Proposed EAM Curriculum

Attan et al. (2018) stated that a revamp of the learning curriculum is required if institutions remain relevant in meeting the changing demands of the job market. The results of the DA of the study demonstrated that the present GE courses were not aligned with the communicative needs of the AVM trainees. Therefore, designing a new syllabus was important to ensure that the would-be graduates would receive appropriate EL training that was deemed relevant to prepare themselves for the workplace. However, seeking the opinions of the programme stakeholders was important for the study to propose a revamp of the GE curriculum.

To obtain the ideal feedback on the proposed ESP curriculum implementation and ensure that ESP was aligned with the programme outcomes, a focus group discussion (FGD) session was conducted with lecturers, who were also the subject matter experts (SMEs) that teach the AVM courses. The FGD was organised to acquire the current findings from the TSA and PSA and discuss the possibilities of proposing an ESP-based curriculum. The participants of the FGD consisted of 10 lecturers, who were SMEs and gained experience in working as AVM personnel.

The FGD session was conducted based on a guided checklist (refer to the checklist in Appendix). Participants were first briefed about the results of the TSA and PSA.

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Following that, the majority of the participants agreed that ESP task-based curriculum was the most suitable for trainees. It was also suggested that the EAMT courses should incorporate some topics from the core subjects. In addition, course designers should use authentic materials, such as textbooks of the core subjects, as a reference to design the in-house materials. The SMEs recommended that the following categorisation of courses could serve as a reference when designing the EAMT course.

Table 5.8: AVM Courses for Reference in Designing the EAM Curriculum

Level 1	Level 2	Level 3
➢ Applied Statistics ➢ Contract Law ➢ Aviation Marketing ➢ Strategic Management	➢ Airport Management ➢ Aviation Regulation ➢ Aviation Economics ➢ Human Resource Management ➢ Air Transport Policy	➢ Airfreight Logistics ➢ Airline Engineering Management ➢ Aviation Safety and Security ➢ Aircraft Maintenance Management ➢ Air Cargo Operations and Management

As shown in Table 5.8, the courses proposed by the SME revolved around aviation, management, law, economics, and marketing, HR, and logistics subjects. Overall, these results supported the model of the proposed curriculum presented in Figure 5.2. These courses were proposed as they addressed the basics of AVM. Moreover, the lecturers highlighted that trainees were often faced with difficulties in coping with the courses mainly due to language factors, such as lack of vocabulary, poor grammar, and lack of proficiency. The content of these courses could be used as the major themes and topics for the EAM course, which are as follows:

➢ Statistics

➢ Contracts

➢ Marketing

➢ Airport structure and facilities

- ➤ ICAO and IATA

- ➤ Handling customers and passengers

- ➤ Market trends

- ➤ Human resources

- ➤ Inflight catering

- ➤ Technology in safety and security system

- ➤ Logistics and others

The FGD participants also agreed that the ESP teachers should conduct some research works on the subject to incorporate AVM topics in teaching EAM. In ESP, the term 'collaborative teaching' or 'team teaching' has been commonly used by course designers or EL teachers (Basturkmen, 2010). The SMEs suggested that the AVM course lecturers and EL lecturers collaboratively teach trainees by featuring task-based lessons and activities.

Employed in drafting the proposed EAM curriculum, the findings from the FGD are important. Given that three levels of English courses are currently offered, the proposed EAM curriculum should also comprise three levels, namely EAM 1, EAM 2, and EAM 3. The course learning outcomes and course content for all three levels were determined based on the suggested topics and activities, and centred on the complexity of the tasks. Besides, the EAM curriculum was prepared based on a standard curriculum document, which included the following details:

- ➤ Title of the course

- ➤ The rationale of the course (based on the programme)

- ➤ Synopsis of the course

- ➤ Course learning outcomes

- ➤ Learning hours

- ➢ Assessment criteria and marks distribution

- ➢ List of topics covered in the syllabus

- ➢ List of references

The curriculum document is an official document that serves as a guide for lecturers teaching the course. The content was revised periodically to ensure that the course content was current and met the programme objective. The curriculum document was used, provided that it would also be used for evaluation purpose that will be explained in section 5.10.

5.8 Sample Teaching Topics and Activities

According to Serafini et al. (2015) and Long (2005), the use of pedagogic tasks in the classroom enables the researcher to test the findings they have obtained from the NA and determine the reliability of the task-based curriculum in developing trainees' language skills by using various methods. In ESP curriculum design, besides evaluating the proposed curriculum, another method of testing the validity of the collected data is by examining the 'output' from the NA process, the teaching materials, and activities. Furthermore, the teaching materials and activities that would be designed should cover the communicative tasks that AVM trainees should be able to apply in their future profession. To confirm the appropriateness in the use of tasks-based topics for preparing the teaching materials and activities, it was necessary for the study to obtain opinions regarding the sample teaching materials and activities that were designed based on the collected data.

As discussed in Section 5.3, all sub-skills shortlisted from the DA of the TSA and PSA findings were included in the proposed EAM curriculum framework. However, to investigate stakeholder's opinion on the samples of ESP teaching materials and activities, only several sub-skills were selected. The next step was to adopt the existing authentic

materials and situation and prepare the teaching material and activities. For evaluation purpose, ten samples of teaching materials were prepared, however, only seven of the samples were evaluated due to time constraints. The table below presents the summary of the teaching materials and activities that were produced.

Table 5.9: Summary of Sample Teaching Topics and Activities

Sample	Tasks/ Sub Skills	Main Skill	Lesson title	Activity
1	Listen and comprehend aviation industry documentaries or multi-media documentaries	Listening and vocabulary enhancement	A350 - The New Generation AC	Listen for information
2	Listen and comprehend aviation presentations	Vocabulary enhancement and speaking	Aircraft Nomenclature	Grammar – Preposition
3	Communicate using various language functions such as welcoming, request, offering, taking messages, apologising, and others Speaking practices (via role play)	Writing and speaking	Small talk	1. Subject-verb Agreement 2. Types of sentences 3. Roleplay
4	Read actual reading materials from the workplace: news on latest technology and development	Reading, speaking, and writing	Smart glasses	1. Reading comprehension 2. Group discussion 3. Writing business proposals
5	Write a memo to inform	Writing	Announcements	Writing memo

6	Write business correspondence letter: Letter of apology	Writing	Business correspondence	Letter writing
7	Read authentic materials from the workplace: reports Speak during oral presentations, business meetings, and business negotiations	Reading, vocabulary enhancement, and speaking	In-flight catering	1. Reading comprehension 2. Contextual meaning 3. Group Discussion 4. Mock meeting

Table 5.9 presents sample topics and activities that were developed to determine stakeholders' feedback. The proposed lessons were based on course outcomes shown in the framework, sub-skills, and activities proposed by the AVM personnel and alumni. The details of each sample are shown below. The sample teaching materials were designed using authentic documents as references and contextualised simulations to determine the suitability of the selected topic, the materials used, and the activity or assessment given. The sample lessons comprised all four skills, namely reading, listening, speaking, writing, critical skills, and vocabulary. The sample teaching materials were designed based on Blooms Taxonomy, which has been used widely in curriculum development and assessment. This taxonomy comprises six levels to differentiate between the stages of learning or assessments. "
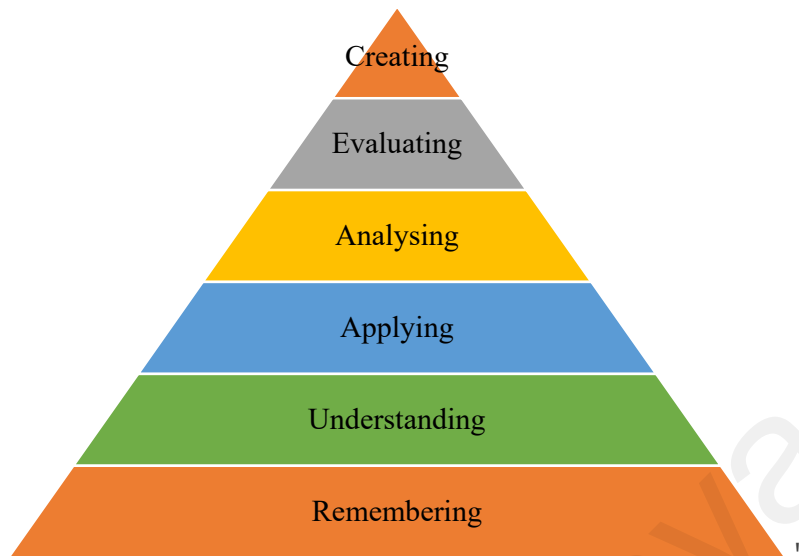
Figure 5.2: Blooms Taxonomy

"

Level 1, **Remembering** - Trainees will be taught and assessed on the most basic knowledge and understanding, which required the least amount of cognitive rigour. This stage involved the trainees recalling key information, such as the meaning of a word. The sample lesson titled 'aircraft nomenclature' was designed to assess trainees' ability in remembering the basic aircraft parts and their functions.

Level 2, **Understanding** – Trainees will be assessed on their ability to demonstrate understanding of the topic. At this level, trainees who recalled the definition of a word would be able to demonstrate an understanding of the word by applying it in the context of different sentences. The sample lesson titled 'the new generation aircraft' was made to assess trainees' ability to retain information.

Level 3, **Applying** - This level is concerned with how trainees could gain understanding and apply it to different situations. An example could be the 'small talk' lesson, which commonly required the trainees to answer a query or solve the passengers' problems.

Level 4, **Analysing** – This stage will assess the trainees' ability to draw connections between the ideas, think critically, and break down information into several parts, such

as the 'smart glasses' lesson. After reading the article, trainees were required to analyse the advantages and disadvantages of the technology.

Level 5, **Evaluating** - This level aims to assess trainees' ability to make accurate assessments or judgements about different concepts. Trainees must make inferences, find effective solutions to problems, and justify conclusions while drawing their knowledge and understanding. The 'customer feedback' lesson and activity were performed to assess trainees' ability to evaluate.

Level 6, **Creating** – The topics and activities covered in this level aims to assess the ultimate aim of trainees' learning journey. On the final level of Bloom's taxonomy, the students demonstrated what they had learnt by creating something new, which could be tangible or conceptual. An example of the topic and activity related to this level was the 'in-flight catering' lesson. Trainees were required to use the knowledge that they had gained from reading the article and internet research regarding the preparation of new flight meal.

Bloom's Taxonomy was used in designing the sample materials to plan teaching and ensure that it covered all three domains, namely cognitive, affective, and psychomotor. The levels of this taxonomy were described through action, words, or verbs that promoted higher-order thinking. Therefore, as the trainees progressed to a higher level, they were expected to gain a strong foundation and were prepared to undergo more challenging training and skills. Hence, Bloom's taxonomy was a highly useful guide to assist the EL teachers in planning their lessons and assessments according to the level of the learners. Besides, referring to the taxonomy facilitated the process of creating activities for the ESP teachers. The samples of the teaching materials and activities used for evaluation purpose are attached in Appendix, while the summarised details of each teaching material and the activities are presented as follows.

Sample 1- The New Generation Aircraft

As stated by Brown (2004), when designing authentic listening tasks, it is important to ensure that the task is cognitively demanding and communicative. This lesson has been designed based on the A350 documentary, which is available on the respective YouTube channel. The objective of the lesson is to introduce trainees to listen to multimedia documentary narrated by a native English speaker regarding the A350 aircraft model. This documentary is selected, given that aircraft manufacturers originate either from the US or European countries. Besides, the English pronunciation in this audio video is clear and with slow speed. Moreover, the lesson covers listening to basic aircraft terms, which are commonly used in aircraft design and maintenance, such as the variant type, layout, capacity, range, length, and jargon including fuselage, cabin, and lavatory. A significant part of the lesson assesses the trainees' listening skills and provides an introduction to aviation terminologies and pronunciation.

Task 1 focuses on information transfer assessment, in which trainees are required to listen to the recording and complete a table. Task 2 involves listening comprehension tasks to assess interpretative skills. Based on the recording, trainees are required to interpret and answer open-ended questions and true-false statements. This lesson emphasises learning the application of technologies through the use of audio-video files. It may be offered to any of the initial semesters, such as the 1st year and the 2nd year.

Sample 2 – Aircraft Nomenclature

Aircraft is the most important figure in the aviation industry. Provided that AVMT is required to learn about the management of aircraft-related matters, trainees should be exposed to the basics of aircraft instead of aircraft maintenance. Covering the basic terms for the aircraft parts, this lesson aims to introduce trainees to modern passenger aircraft and the basic parts of a modern aircraft and to differentiate between the advancement and

technology in aircraft design. Furthermore, it involves listening to a briefing about the location of aircraft parts, such as the engine, cockpit, aileron, and other parts of a modern passenger aircraft. A significant part of the lesson is that it assesses trainees' listening skills and the ability to locate the aircraft parts based on the descriptions provided.

Task 1 focuses on information transfer assessment, whereby trainees are required to listen to the recording and label the aircraft parts accordingly. In Task 2, trainees are required to research and describe the function of the parts. This is followed by Task 3, which is a discussion on specific terms including white body aircraft and narrow-body aircraft. Notably, this lesson emphasises listening through the use of grammar and could be offered to any of the initial semesters, including the 1st year to the 2nd year.

Sample 3: Small Talk

The AVM trainees should be able to speak or respond in various face-to-face situations and telephone conversations. This lesson teaches the expressions and techniques for making conversation or small talk. Trainees learn how to communicate using English conversation skills on topics related to the workplace. The lesson begins with a lecture on an introduction to vocabulary for describing different types of social interaction and typical conversation openers and responses.

The first task is a responsive assessment task, whereby trainees are required to complete dialogues by writing the correct phrases for various situations, such as welcoming, informing, apologising, giving suggestions, and others. The second task involves role-play activity, whereby trainees practise greeting each other and making small talk based on the short dialogue scripts. The scenarios given are based on aviation discourse and contexts. Notably, this lesson emphasises grammar and conversation skills, which will be useful when trainees need to visit the airport, airline companies, and other

aviation organisations. It could be offered to any of the initial semesters, including the 1st year and the 2nd year.

Sample 4 – Smart Glasses

According to Brown (2000), reading performance could be measured by the types of texts selected. The aviation Smart Glasses has been introduced in recent years to improvise on safety operations. It is also among the examples of technology that have been devised to minimise incidents or accidents that could incur a cost to the airport and airline operators. Accordingly, this lesson focuses on analysing aviation bulletins on technology and using the given information to propose the use of smart glasses. Furthermore, it aims to introduce trainees to the importance of reading aviation bulletins to learn about the latest technology in aviation management. This news bulletin is selected due to the straightforwardness of the article, and it offers a brief review of the function of smart glasses.

The lesson covers vocabulary and abbreviation enhancement. Task 1 focuses on contextual clues, whereby trainees are required to guess the meaning of the words extracted from the bulletin extract. The next part of the lesson emphasises problem-based learning based on the given situation. Trainees are required to conduct peer interaction to discuss the adoption of smart glasses technology. Following that, they will be assessed through a guided Group Discussion (GD) activity. The lesson is followed by a writing assessment. Based on the GD points, trainees will write a proposal to suggest the introduction of smart glasses for the organisation. Lecturers and practical exercises on reading strategies, GD skills, and proposal writing skills will also be included, given that these exercises are the important parts of the lesson. Notably, this lesson emphasises learning through the use of varied reading documents and may be offered at any time during the 3rd to the 4th semester of the programme.

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Sample 5 – Customer Care

A memo or memorandum is a crucial document in business communication. Memo is a form of official written announcement used in the aviation industry. This lesson focuses on writing a memo to announce an upcoming training, which is compulsory for the involved staff. The incorporation of this memo as a part of the lesson is due to the job scope of the AVM personnel who are often required to make announcements. Managing customers' and clients' complaints is a highly important task in aviation management, given that they are among the important stakeholders. Thus, the importance of the training must be addressed in the memo to ensure that employees understand the purpose of the document.

Although memo writing has been included in the current syllabus, the current lesson places less emphasis on writing for the aviation context. Therefore, the proposed lesson is designed to introduce trainees to the writing of memos based on the aviation context, with reference to annexes, policy, and abbreviations. Trainees are required to write a memo to emphasise the objective of the training and details about it. The lecturers and practical exercises on memo writing skills and business communication are also included as these are the important parts of this lesson. Notably, this lesson emphasises learning through the use of technology, such as the use of audio-video files. It is also offered at any time during the 3rd to 4th semester of the programme, given that the trainees have been exposed to aviation business management.

Sample 6 – Customers Feedback

The findings from the NA have demonstrated that letters are highly important written documents used for communication between personnel and clients. The theme of the proposed lesson focuses on the management of customers' complaints and feedback. Although the current syllabus includes letter writing, the current letter writing lesson is

highly general and not specific to the aviation contexts, which is similar to memos. Provided that the proposed syllabus is task-based, the lessons must focus on the aviation contexts. Moreover, a letter of apology should be written by AVMT. The lesson focuses on writing the correct content and the use of the correct expressions in writing. In this case, trainees are required to write an apology letter as a response to a passenger's complaint regarding his flight. This process includes an analysis of the situation as the highlighted problem is relatively specific and involves a technical matter. The trainees' response should also include an explanation that is specific to the complaint instead of a general reply.

The aforementioned process will be followed by lectures and practical exercises on letter writing conventions and business communication, provided that these exercises are the important parts of this lesson. Notably, this lesson emphasises the do's and don'ts in writing skills and corrects the dangling modifiers in letter writing. This lesson may be offered at any time from the 3rd to the 4th semester of the programme as trainees would have been exposed to aviation business management.

Sample 7 – In-flight Catering

In ESP teaching practices, the lesson should be interesting and meaningful to the trainees. Therefore, authentic materials should be adapted to be used as teaching materials. This lesson focuses on analysing the latest aviation news on in-flight catering services. The AVM trainees must undertake a course on in-flight service management. Besides, in-flight catering has been a highly important aspect of aviation management.

The objective of the lesson is to practice reading aviation news to learn about the latest development or issue in the local aviation industry. This news article is selected as it involves two of the important stakeholders of the industry and offers trainees an understanding of the importance of investigating the prospective companies that they may

join for their OJT or future career. The lesson covers business terminologies. Task 1 focuses on the contextual clues, whereby trainees are required to guess the meaning of the words extracted from the news article. This is followed by Task 2, where trainees are required to answer comprehension questions.

The next part of the lesson requires trainees to conduct a mini-research on airline catering. They are required to work in groups and form a "mock company" to discuss the consideration of changing the flight meal option based on the feedback received from passengers. All trainees will have to present and discuss their agenda during the mock meeting, and their speaking skills will be assessed. The lesson will include a written assessment, meeting notices, meeting agenda, and meeting minutes. The lecture and practical exercises on meeting skills will be included in this lesson as these are the important parts of this lesson. Notably, the lesson emphasises the use of technology to learn for research. It may be offered at any time during the 5th or 6th semester of the programme.

EVALUATE

In ADDIE, the final but most essential phase is the evaluation stage, which seeks to evaluate the output of the study. In this study, the output referred to the EAM curriculum and the teaching materials and activities, which were developed based on the NA findings. Provided that the objective of this study is to propose ESP for AVM trainees, the alumni and the AVM personnel must evaluate the proposed EAM curriculum and the sample teaching materials. This section discusses the feedback received regarding the appropriateness of the ESP sample teaching materials for AVM trainees and the validity of the curriculum, which has been developed.

5.9 Feedback on Sample Teaching Materials and Activities

The assignments designed based on the real workplace tasks allowed the teachers to exploit the assessment for work or academic purposes (Khoshhal, 2018). Additionally, working adults could employ these task-replicating assignments if they wish to improve their communicative competency. The sample teaching materials and evaluated activities comprised seven topics and several tasks that revolved around actual aviation workplace scenarios. Authentic materials, such as news articles and video documentaries, were used to prepare the sample teaching materials and activities for evaluation.

The feedback was obtained through semi-structured interview among the participants who comprised 10 AVM personnel including the alumni. The interview was performed face-to-face except for two alumni participants who requested for the interview questions to be emailed, given that they were based overseas. Following that, participants were presented and briefed about the sample teaching materials and activities sheets. The form used in the interview consisted of the same criteria that were used in the textbook evaluation form. Although seven samples were prepared during the briefing, the participants evaluated each task separately for evaluation purpose. The participants' opinions were gathered and presented in the following table.

Table 5.10: Participants' Evaluation of Sample Teaching Materials and Activities

Teaching material and activities title	Subject and Content (relevant/ not relevant)		Language type and functions (useful/not useful)		Skills		Activities	
Total Participants	Relevant (10)	Less and Not Relevant (10)	Useful (10)	Not Useful (10)	Sufficient (10)	Insuffic-ient (10)	Useful (10)	Not Useful (10)
Listening to aviation documentary	10	0	10	0	10	0	10	0
Aircraft Nomenclature	10	0	10	0	10	0	10	0
Small talk	9	1	10	0	10	0	10	0
Reading article about Smart Glasses	9	1	10	0	10	0	10	0
Group discussion on Smart Glasses	9	1	10	0	10	0	10	0
Proposal writing on Smart Glasses	9	1	10	0	10	0	10	0
Memo writing	10	0	10	0	10	0	10	0
Letter writing	10	0	10	0	10	0	10	0
Reading article about inflight catering	10	0	10	0	10	0	10	0
Meeting skills	10	0	10	0	10	0	10	0

Table 5.10 presents the results from the findings of the evaluation of the teaching materials and activities. Almost all the participants agreed that the subject and content of the sample teaching materials were relevant, the language type and function were useful, the skills covered were sufficient, and the activities were useful. Some of the comments from respondents are as follows.

Respondents' Comment for Respondent 1

"This will be an effective tool in enhancing better understanding and memory retention of new topics. Subtitles on video with new or technical terminology should be used to augment student comprehension as visual aids." – MS4

"Relevant. Improve listening and getting used to aviation terminologies." – PA1

"Essential. To be in aviation is knowing aviation." – AA4

Respondents' Comment for Respondent 2

"*This will be an effective tool in enhancing better understanding and memory retention of new topics. Subtitles on slides with new or technical terminology should be used to augment student comprehension as visual aids.*" – AA3

Respondents' Comment on Respondent 3

"Relevant for interviews, events and day to day conversations." – AA4

"Can add: to ask for information skills." – PA1

Respondents Comment on Respondent 4

"Clear guidelines given would be good to challenge students as some tend to adhere to guidelines." – AA4

"Sufficient… includes market analysis, negotiation skills, and decision-making skills."
– MS1

"For reading purposes, the article will be attractive as everyone is getting tech-savvy."
– VA1

"For discussion purpose, this activity is very good… for knowledge-wise, this activity is very good to expose students on the aviation suppliers out there." – MS2

Respondents Comment on Respondent 5

"For technical terms, it is necessary for students to learn the basic principles in terminology structure." – MB2

"To include complaints data in lesson." – MS1

"Situation that requires memo notification… bay closure at terminal… notification of security enhancement to enter a restricted area." – PA2

Respondents Comment on Respondent 6

"Great guideline and although relates more to customer service, the knowledge is beneficial"- AA4

Respondents Comment on Respondent 7

"Reading news: to keep up with current/ latest news trend" – MS1

"Meeting skill is relevant and would open their mind… suggest: probably someone from Airline to facilitate the meeting" – AA4

As described in Table 5.10, the comments written by participants on the forms indicated that the majority of the respondents rated the sample lesson as having relevant subject and content, useful language functions, delineation of sufficient skills, and useful

activities. Based on the comments given, the overall feedback from the participants was analysed, while the results from the analysis are discussed as follows.

- **The practicality of Subject and Content:** The majority of the participants agreed that all of the sample teaching materials and activities were relevant for the trainees. However, one of the nine participants stated that teaching about small talk, reading about smart glasses and GD activity, and writing the proposal for this topic was not relevant. To illustrate, the participant regarded the Smart Glasses topic as overly advanced for the trainees, while the small talk was considered an easy lesson. However, the rest of the participants agreed that small talk was relevant, given that it is often conducted in interviews, events, and day-to-day conversation. Besides, a suggestion was presented for trainees to be granted more role-playing activities and practices to improve their impromptu communication skills.

- **Language Type Functions:** When asked about the language used, most of the respondents claimed that the language type and functions covered in all the teaching materials were useful in training the AVM trainees. The teaching materials and activities comprised aviation jargon and terminology, which would enable trainees to familiarise and practise the use of the language to improve their understanding in other AVM courses. This language could be practised for communicating at their future workplace.

- **Skills:** All the participants agreed that the skills covered in the teaching materials and activities were sufficient as they were related to workplace skills. Similarly, the AVM personnel agreed that the sample teaching materials and prepared activities included all four language skills, namely reading, speaking, listening, and writing. Besides, the materials covered most of the proposed course sub-skills, including group discussion and meeting skills. This feature allowed the trainees to present their views effectively.

- **Activities:** All of the participants stated that the activities covered are engaging. The type of tasks listed in the sample teaching materials and activities could bridge the gap from being a student to a working adult.

The overall feedback and comments from the interview participants suggested that EAMT teaching materials and activities were approved by the participants. Besides the positive feedback, some suggestions were also shared by the participants, such as additional information to be included in the materials and engaging outsiders (except for the lecturers) as facilitators of the activities. Based on the findings, it was concluded that the EAMT teaching materials and activities were more appropriate for the AVM trainees. The findings suggested that the curriculum should include the core competencies and sub-skills common to handling the communicative needs in the workplace.

The EAMT teacher could use ESP-based teaching materials to introduce AVM trainees to different genres and discourse. Through this action, the AVM trainees would be able to relate the lesson with the AVM knowledge, understand the type of English used, and would refrain from complaining about the irrelevance of the topics and activities. It could also be indicated that the GE textbook is not practical for the AVM trainees.

5.10 Feedback on Proposed Curriculum

The proposed curriculum was evaluated by two categories of reviewers: the subject matter experts (SMEs) and an English course lecturer. Given that the objectives for the proposed curriculum (refer to appendix) were relatively comprehensive, the objectives were arranged based on three levels: foundation, intermediate, and advanced. The details of each level are as follows:

1. EAM 1 – This course is designed for foundation-level trainees of the AVM programme. The course syllabus covers the introductory topics and skills deemed

essential for AVM trainees. It aims to expose trainees to the importance of competency in listening, reading, speaking, and writing in English, and to go through other AVM programme academic courses. The EAM 1 syllabus is tailored to develop trainees speaking and written communication skills in line with technology advancement.

2. EAM 2 – This course is suitable for intermediate level AVM trainees. The course is a continuation from Level 1, while the approach in the course objectives, topics, and assessment are task-based. The EAM 2 syllabus aims to enhance trainees' English proficiency by enabling trainees to apply all four language skills in real-life situations, such as the industrial visit. The syllabus will enable trainees to improve their writing, reading, and listening skill through integrated teaching and assessment.

3. EAM 3 – This course is intended for advanced-level AVM trainees. While the trainees must undergo the pre-requisite level, EAM 1 and EAM 2 are required to undergo the advanced level. The course is focused on enhancing trainees' spoken and written proficiency to communicate in a professional manner during work and non-work-related situations, including planned and impromptu situations. Besides providing practical skills in conducting research, the course aims to prepare trainees to communicate professionally for the recruitment process.

The evaluation process was performed through a written survey. The survey form was designed based on a general set of questions on the course syllabus, which covered the course objectives, course learning outcomes, the covered topics, and assessments. The form is attached in the Appendix. In this process, the proposed curriculum was submitted to the SMEs of the AVM programme. The SME team comprised five lecturers from UniKL MIAT who had vast experience in AVM, teaching, and curriculum review and development. The SME team reviewed, evaluated, discussed, and wrote their feedback about the curriculum on the provided survey form.

Apart from the SME team, the curriculum was also evaluated by the external advisor of the programme who is from Universiti Teknologi Malaysia. The external advisor was involved in obtaining feedback from an external expert who was an advisor of the programme regarding the appropriateness of the curriculum. Furthermore, the curriculum evaluation was performed by a senior lecturer who is an English lecturer from UniKL to validate the course document. Notably, this exercise was important to gain feedback from a language expert, given that the reviewer is also an ESP expert and has gained experience in ELT for Technical and Vocational Education and Training (TVET) programme. The participants involved in the review process were provided with a specific ID, such as a reviewer ID.

The proposed curriculum was evaluated to validate the content, topics, and assessments, and gather feedback on the appropriateness of the proposed curriculum. The feedback and comments collected from the reviewers would be a meaningful contribution in establishing a well-prepared product of the syllabus and curriculum for the AVM trainees. The feedback from the reviewers is summarised as follows.

EAM 1: Based on the evaluation exercise of the EAM 1 syllabus, all reviewers agreed that the content was sufficient for beginner-level AVM trainees. However, Reviewer 4 suggested that the syllabus topics should include communication via social media applications, such as Facebook, WhatsApp, and LinkedIn to keep trainees updated with technology. All reviewers agreed that the content was relevant to the intended learners, given that it was based on aviation topics. Nevertheless, Reviewer 7 added that the techniques on reading skills should be introduced before the trainees were exposed to the use of authentic materials in class. She also suggested that all sentence types in the Basic Sentence Structure topic should be covered in EAM 1. Some of the comments from the reviewer are as shown below:

"Sufficient to support the needs for first level English Lesson."– Reviewer 2

"Should add professional communication using social media (e.g., Whatsapp), which now becomes current trends." – Reviewer 3

"Techniques on reading skills should be introduced before various materials are used in class. Basic sentence structure should be fully addressed in EAM 1 and not split into 2." – Reviewer 7

EAM 2: Based on the evaluation exercise of the EAM 2 syllabus, the reviewers agreed that the syllabus content was up-to-date and current with the aviation industry. However, the AVM lecturers highlighted the inclusion of the topic of critical analysis skills and vocabulary enhancement topics in the course. Meanwhile, Reviewer 2 suggested that the format used in writing topics, such as writing project proposal and business proposal, should be aligned with other AVM courses including business courses. English lecturers could co-teach these writing skills with the SME via task-based assessment. The reviewers agreed that all the topics were relevant and did not have to be omitted. Reviewer 3 suggested that meeting and discussion skills were moved to EAM 3, which was the advanced level due to the complexity of the skills. Overall, the reviewers agreed that the EAM 2 course syllabus was valid and suitable for the intermediate level AVM trainees:

"Yes, it is current." – Reviewer 1

"Level of each syllabus to match against other courses. For instance, students taking project management have difficulties in differentiating project proposal and business proposal and writing minutes of the meeting" – Reviewer 2

"Yes suitable for that current level" – Reviewer 5

EAM 3: Feedback from reviewers' evaluation of the EAM 3 course syllabus suggested that the course content was current with the aviation management industry practices. Although there were no gaps highlighted, suggestions were made to include practice on reading journal articles and the methods of managing virtual communication especially for interviewing purpose. Reviewer 3 added that trainees should be taught how to create a critical review of journal articles, while Reviewer 7 suggested that the syllabus specified the types of letters to be covered. Overall, the reviewers agreed that none of the content should be omitted and the organisation of the topics was clear. According to Reviewer 2, given that EAM 2 and EAM 3 were the advanced level courses, the focus should be placed more on enhancing trainees' speaking and writing skills to ensure that they were able to converse professionally and respond with appropriateness and spontaneity in impromptu situations.

"To include article journal/research paper (reading)… to include virtual communication (interview), to include an impromptu presentation." – Reviewer 2

"Need to assess the critical thinking component e.g., criticising ideas in reading and speaking." – Reviewer 3

Besides the feedback on the syllabus, the evaluation exercise included additional questions in Section B to gather reviewers' opinion and comments on the proposed curriculum as a whole. The reviewers' opinions and suggestions were discussed based on three criteria, namely overall course structure, organisation, and suggestions on improvement.

5.10.1 Overall course structure: Objective, learning outcome, topics, and assessments

Reviewers agreed that the overall course structure was current and valid based on the AVM programme outcome. It was also added that some of the proposed activities should

be tailored to ensure that trainees obtained the opportunity to practise the language and proficiency skill in a real setting. This action could be made through the collaboration between the English lecturers and the lecturers who were teaching AVM courses or SMEs.

"Yes, it is current Contents related to knowledge and skill is relevant." – Reviewer 1

"The CLO for EAM 2 i.e. business meeting and discussion are higher-level competencies. It is suggested to move them to EAM 3." – Reviewer 3

5.10.2 Organisation

All reviewers agreed that a transition occurred between each level of the course, which created a well-organised syllabus and a curriculum relevant to the trainees' needs as they progressed through the programme. Reviewer 7 suggested the use of a topic-based syllabus instead of a skills-based syllabus. The participant added that the distribution of allotted time for teaching writing skills should be planned accordingly to ensure that all trainees were given sufficient time for writing practice.

"Yes, the movement in every level is from easy to hard level." - Reviewer 5

"Yes, but can consider a topic-based syllabus instead of dividing them by skills, as an integrated approach might benefit the students more. The topics for writing should be revisited to ensure that there is sufficient time to cover all topic at every level." – Reviewer 7

5.10.3 Recommendations

Based on the evaluation exercise by the reviewers, it could be concluded that the proposed curriculum is relevant for AVM trainees. Besides the evaluation, the reviewers provided several constructive recommendations to be considered, which are as follows.

"Reading aviation letters- regulatory notices/advice/advisory notes – Reviewer 1."

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"Reduce the wordings of the course learning outcome (CLO) to avoid confusion among lecturers." – Reviewer 3

"To include some percentage for listening comprehension in EAM1 and EAM2 and to include activity on making instructional/training videos on specific aviation topics." – Reviewer 6

"English lecturers should emphasise the need to practise communicating in English among trainees." – Reviewer 5

"The assessments to be task-based/integrated instead of being tested in isolation" – Reviewer 7

The evaluation exercise offered highly constructive insights into the study. Not only did the reviewers express their views on the suitability of the ESP-based approach for teaching the AVM trainees, but they also presented comments and suggestions to be considered in the proposed curriculum draft. This was followed by the necessary changes made in the proposed EAM curriculum. The revised proposed EAM curriculum is attached in the Appendix.

5.11 Summary

This chapter discusses the results from the PSA by performing a gaps analysis of the actual communication needs against the current curriculum and textbook evaluation. The analysis of the PSA results revealed that the current English curriculum used for teaching the AVM trainees does not involve reading and listening skills. Meanwhile, the content of the current curriculum is lacking the desired language skills and communication skills that enable the AVM trainees to communicate professionally in the aviation management context. To propose the revamp of the current curriculum, an evaluation was made by the researcher on some sample teaching materials to determine the appropriateness of the use of ESP-based teaching for AVM trainees. The AVM personnel unanimously agreed that

the sample materials reflected the type of language training that the AVM trainees should be exposed to. Therefore, it was concluded that the ESP approach is suitable for AVM trainees. This chapter discusses the findings from the evaluation and validation of the proposed ESP curriculum by reviewers based on the programme learning outcome. As explained in Chapter Two, the assessments used in ESP course design are highly important as they will determine whether the course outcomes can be achieved. The next chapter will discuss the development of the EAM course assessment criteria, the minimum output that is expected of trainees, and the development of the assessment rubrics.

CHAPTER SIX: ASSESSMENT DEVELOPMENT

6.1 Introduction

This chapter discusses the process of determining and deciding the assessment criteria, which was used to determine AVM trainees' English proficiency and competency level. In general, developing suitable assessment in ESP courses, especially in AE, has been one of the most challenging aspects of curriculum design. The process of determining the industries' expectation of graduates is the most important step before deciding the course assessment criteria and the course learning outcomes. Despite being in the same industry, the difference between the communicative needs of different aviation personnel results in different assessment criteria. In this chapter, RQ3 and the sub-questions emerging in this study are presented.

RQ3: How should a revised AVM curriculum be designed to meet workplace requirements?

  i.   What is the minimal level of language ability expected by employers for the acceptance of potential AVM learners into the workplace?

  ii.   What criteria do employers adopt when evaluating the quality of oral and written output?

  iii. What is the minimum level expected for acceptance of completed oral and written tasks in the workplace?

The results and findings from the above-listed sub-questions are discussed in the following sections.

6.2 Developing the EAMT Assessment

In most cases, communication skills and language proficiency are amongst the important criteria that employers seek when hiring graduates. Language proficiency is essential when the nature of the job involves purely oral and written communication, such

as the profession of AVM personnel. According to Bhattacharya (2018) and Lippman and Keith (2009), the graduates' readiness to undertake work tasks reflects their ability to speak, listen, read, and write the language that is officially used in the social discourse and written documents, including the interpersonal skills when working in a team. Therefore, graduates should be exposed to the language skills and minimum proficiency required to perform the AVM personnel tasks.

The assessment of AVM trainees' proficiency and communication ability should be similar to the tasks of real workplace situations. However, the main difficulty in assessing AVM trainees' performance could be attributed to the mismatch between the acquirement of specific expected outcome based on different challenges, which would be faced by the trainees in their future workplace. According to Bhatia and Bremner (2012), the EL teachers of GE courses often use the standard assessment method, given that the course outcome is general. However, in ESP courses such as the proposed EAM course, the assessment criteria or the expected minimum outcome should be determined before determining the types of assessment to be used.

The NA findings presented in Chapter Four demonstrated that proficiency in English is crucial for AVMT as the aviation industry is expanding. Thus, communicating in English is no longer optional as it is the dominant language in aviation. Besides, it was also illustrated in the authentic document analysis that the knowledge of specific aviation jargon, business, and legal terminologies, including language phrases and functions should be assessed, provided that aviation communication often revolves around these contexts. Graduates should be able to demonstrate their reading and linguistic comprehensions with competence upon joining the industry.

Despite the expectations of the graduates' ability, the overall findings for RQ3 sub-questions demonstrated that employers have yet to adopt a specific test or measurement scale to examine the graduates' proficiency in an interview or during the probationary

period. The majority of the hiring personnel claimed that they assessed the English communication skills among the graduates or job candidates based on their general perception of the expected proficiency and communicative ability. In this case, an interview or probationary period would not be applied to the candidates that did not meet the expectations of the hiring personnel during the application process. However, the general perception and expectations might vary according to organisations. Some organisations would have a higher expectation of the graduates' English proficiency, while other organisations would reduce this expectation during the interview or screening stage. Therefore, a standard rubric or measurement tool should be developed or adopted to standardise the assessment criteria for selection during the job interviews.

In most cases, the ability to communicate in English is specified as a requirement in AVM job vacancies. Thus, it is necessary to gather information and harmonise the minimum criteria set by different aviation organisations in a test or descriptor, which would be used as a guide when gauging graduates' proficiency and communication skill. Furthermore, the need for a test to be developed is not solely to ensure that the trainees can secure a job as AVM personnel. The test criteria could be used to train and assess trainees to enhance their language skills as they undertake EAM courses. Similar to the holistic descriptor used for assessing and training pilots and ATC, the criteria or descriptor used for assessing AVM graduates should be used as a guide among EAM teachers when evaluating the AVM trainees' language ability. At the same time, various task-based activities are included in the course, such as proposal writing, acquiring meeting skills, and attending conference call among other tasks.

In the initial stage of developing the ICAO ELP requirements, the English language experts attempted to make a correlation between the ICAO language proficiency rating scale and other widely known existing tests, such as IELTS, TOEFL, TOEIC, and Common European Framework (CEF). Despite the presence of some correlations, the

findings from the experimentation have proven that these tests are suitable for other language testing contexts and do not specifically relate to the aviation context. Notably, IELTS, TOEFL, and TOEIC are common tests, which are frequently used to assess test takers' competency in English for academic and work purpose. However, the context of the assessment is general and not specified to test takers' discipline or field of work.

"Specific-purpose English language testing seeks to evaluate a test-taker's ability to perform tasks in ways that closely approximate job-related tasks. It is mission-oriented and may be more limited in scope." – DOC 9835

In ESP-based assessments, the assessment criteria should reflect the outcomes expected of the test taker. Hence, it is crucial to ensure that the assessment scale used to assess AVM trainees' and graduates' proficiency is similar. The AVM trainees and graduates should be able to employ their language skills to cope with other AVM courses and demonstrate their knowledge of the latest and updated requirements, including the expectations sought by the aviation industry.

Based on the findings presented in Chapter Four, none of the employers or recruitment personnel used the ICAO ELP descriptors to evaluate AVM graduates' proficiency during the interview or probationary period. However, it would not be appropriate to conclude that the ICAO holistic descriptor was not suitable for testing the AVM trainees. A review of the literature demonstrated that holistic descriptor was used for testing several groups of CRMs, such as engineer, technicians, cabin crew, and ground crew. Therefore, it is necessary to investigate whether the ICAO holistic descriptor could be used for assessing AVM trainees and graduates proficiency and communication skills.

6.3 Current Assessment used to Assess AVM Trainees

Before investigating the suitability of using the ICAO ELP descriptors to test the AVM trainees, it is essential to examine if the current assessment meets the trainees' future

workplace needs, how the assessment on the current AVM trainees is performed, and whether the current assessments meet the aviation industry requirement. Accordingly, an interview was conducted with two lecturers from the institution teaching the GE to the AVM trainees, with an aim to investigate how the trainees' proficiency was assessed in the courses taught. The lecturers' background information is presented in the table below.

Table 6.1: Lecturers Information

Lecturer ID	Courses taught
L1	PE2 and PE3
L2	PE1, PE2 and PE3

Table 6.1 displays the courses taught by the lecturers involved in the interview. The lecturers were identified with a specific ID. The interview questions were prepared and were validated before being emailed to both the lecturers. The lecturers' demographic information is attached in the Appendix, while the interview questions and responses are as follows.

Question: Do the present English courses, teaching materials, and assessments meet the learners' present and future needs? Why?

"Maybe only 60% of it. We have yet to do a thorough needs analysis at airlines to understand what is truly needed for our students to be equipped with before they graduate. The current English topics are more of writing resumes, E-mails, interviews, writing proposals and research. We may have covered the basic lessons but I believe there are more areas we need to add on the soft skills, for example, negotiation skills, critical thinking skills, people skills etc., the skills that go beyond their technical knowledge that could help solve problems in a critical situation." – L1

"Yes for the present needs, as the materials focus a lot on English proficiency skills that are definitely required as students. However, it is a no for their future needs; this can be ascertained with the lack of industrial applications and real-life aviation management materials in the English courses" – L2

The responses provided by the lecturers strongly indicate that the current English courses did not prepare trainees for their future needs, which are to meet workplace requirement. Furthermore, inconsistency seemed to be present in the response regarding whether the teaching materials and assessments met the current needs. The current English course content remained lacking as certain skills and sub-skills were not covered in the course, which was essential for trainees. The next question was presented to seek the lecturers' responses on how trainees' learning achievement was evaluated.

Question: How do you evaluate students' learning achievement?

"By assessing their quizzes, midterm, final exams, and assignments. It is easy to detect their writing skills during midterm and final exam as it is done individually. However, I cannot detect their writing skills through group work (academic report). Also, the oral presentation is, even though it is done in a group, but the marks are given individually."- L1

"With ICAO Doc 9385 as the main reference, every assessment is adapted accordingly to measure their skills (Pronunciation, Structure, Vocabulary, Fluency, Comprehension, Interaction) and alignments with Course Learning Outcomes (CLO)/Program Learning Outcomes (PLO) as our university measure attainments of Learning Outcomes." – L2

This question determines how the current assessments were performed in evaluating trainees' proficiency and language skills. Based on the feedback presented by the lecturers in teaching the AVMT students, it is important to note that the lecturers measured trainees' proficiency ability based on specific writing tasks, such as quizzes, midterm, final examination, and oral presentation. To illustrate this point, the trainees' proficiency level could only be determined if they were assessed individually instead of as a group. Interestingly, L2 stated that the ICAO rating descriptor was used to rate trainees' proficiency, while their language skills were measured based on the course learning outcomes.

Question: Do you think the English proficiency levels of trainees meet the requirements of the aviation industry?

"I believe so. Each subject of the aviation management course would need students to use aviation management vocabularies. The oral presentations that the students need to do for every subject in every semester will equip themselves for the industry. I believe other aviation management subjects help them polish their English proficiency. It all depends on the effort of the students with the guidance of their lecturers." – L1

"For the most parts, yes. Again, we based on ICAO Doc 9385 as Aviation English differs quite a lot compared to Standard English or General English. So, for aviation management, Level 4 (Operational) suffices. "- L2

The feedback on whether trainees' proficiency levelled the industry requirements demonstrated the uncertainty that remained in it. According to *L1*, the AVM assessments should focus more on AVM personnel's actual job scope and skills. In this case, trainees were required to demonstrate their proficiency in English by using the aviation and management vocabularies and phrases when performing critical skills, such as

negotiations or business meetings. Besides, the English courses should assess the trainees' ability in using the required proficiency and language skills when authentic assessments, which mirrored real workplace scenarios or tasks, were employed. This condition suggested that, similar to the syllabus, the assessments for the EAMT programme should include more Task-Based Assessments (TBA), which were lacking in the courses.

L2 stated that if trainees were assessed according to the ICAO ELP minimum level, the trainees' proficiency would not meet the aviation industry requirement. However, this course was a GE course that was offered to all degree students across the nine faculties in the university. Therefore, the assessment guide or rubrics should be standardised and not aviation-centred.

Based on the responses provided, it could be concluded that the current AVM English course lecturers were yet to investigate if the English proficiency of the trainees met the requirement of the prospective employers or hiring personnel. Nevertheless, the lecturers were aware that the current English courses offered to the AVM trainees were lacking in the skills and language conventions covered. Although the ICAO holistic descriptor was used to test trainees' oral/speaking and listening skills, there was no specific rubrics or descriptor used to assess the trainees writing skills. Therefore, the examination of AVM personnel's opinion on the expected proficiency and communication skills is essential.

A descriptor or rubric contains specific assessment criteria for a candidate to be awarded an appropriate level of language ability that reflects his language proficiency (Attan et al., 2012). It is necessary to ensure that before adopting any measurement, rubric, or descriptor to assess the trainees' oral and written skills, the course designers must conduct a mock assessment to validate whether the construct is suitable to measure trainees' proficiency based on the AVM requirement. Apart from investigating and

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developing EAM assessment criteria, the assessment of AVM trainee skills should align with the CEFR benchmark to ensure that trainees achieve the targeted level of C2 upon completion of the programme.

The EAM assessment is benchmarked with CEFR criteria as CEFR is a well-known proficiency test, which is also recognised by the university and other universities. Most established universities around the world have imposed requirements to be fulfilled by applicants, which also include English proficiency requirement. The benchmarking will enable trainees to use their EAM course results to enrol into the universities to pursue their postgraduate or further studies in other countries. Besides, upon the completion of studies, AVM trainees from the institution will be awarded the membership of an internationally renowned body known as the Chartered Institute of Logistics and Transport (CILT) Malaysia.

CILT Malaysia is the professional body representing the logistics and transportation industries in the nation. It is also the second largest division outside the UK. With the membership, the AVM graduates should be able to demonstrate professionalism in performing their tasks and communication. Therefore, the AVM trainees should be trained and assessed for the development of their professional competency in English. The following sections will discuss the process of validating the construct considered for developing the descriptors used for writing and speaking assessments.

6.4 Minimal Level of Language Ability Expected by Employers

As stated in Section 6.1, this chapter aims to investigate the minimal level of language ability expected by employers when gauging the AVM trainees' proficiency and communication skills. The expected level should be embedded in the course assessment. However, for the study to propose the assessment that would be used for testing AVM trainees' proficiency, the exploration of the minimum language proficiency was

important. Besides, the employers of the language tasks expected the fresh recruits to be able to perform. Overall, these requirements were included in the PSA section of the interview. Table 6.2 in the following page presents the skill level expected by employers.

Table 6.2: Minimal Skills and Proficiency Expected by Employers

Written tasks	Language Skills required	Rating of fresh recruits	Employers' expectation level
1. Minutes/Memos 2. Emails 3. Reports (progress and routine operational reports) 4. Business publicity (annual reports) 5. Letter of correspondence 6. Letter of enquiry 7. Proposals	General English with a range of aviation terminology and abbreviations. The knowledge of basic business and legal terminology would be an advantage.	Average to good	Good to excellent

The employer's expectation of fresh recruits' minimal level of writing ability was explored to investigate the types of written tasks that fresh recruits were expected to produce. The list of writing tasks appeared lesser compared to the list of writing tasks discussed in Sections 4.4 and 5.6. Table 6.2 presents the minimal writing competency that employers and senior personnel expected from fresh recruits. The participants expected the writing of fresh recruits to range from good to excellent although the majority of the recruits exhibited an average level of competency. While a fresh recruit was expected to make minimal errors when using the English language, his vocabulary must be extensive. The skills and levels expected by employers (Table 6.2) ensured that the prospective employees were able to perform based on the workplace requirement.

6.5 Design of The Writing Descriptor

In designing task-based assessments, it is more convenient to determine the appropriateness of an assessment to test real-life skills, such as the ability to participate in a discussion and write a report or participate in a video conference instead of the common tests that assess the trainees' grammar knowledge or essay writing skills. In task-based assessment, administering a test that consists of close passages and multiple-choice questions may not be practical in assessing trainees' proficiency and language ability when performing the actual tasks at their workplace. According to Razmjoo (2011), "if a test is to be used to make judgements about how an individual can function in a normal situation outside the test, for instance, email or letter writing task, the test has to be as accurate a reflection of that situation as possible". This statement implies that the collected sample language and the tasks that the trainees need to perform should be used in the email, report, and letter writing assessments. This approach enables trainees to gain exposure to the language and skills needed to function in real-life contexts.

The document analysis performed on the written assessments demonstrated that written assessments were not context-specific (Chapter Five). The objective of the written assessments should determine whether the AVMTs' proficiency skills met the minimum proficiency level expected in writing. Moreover, the written assessment should be a fair reflection of the type of task, whether the candidate would be required to perform as a part of the course or participate in exit interviews.

The AVM personnel and employers assess the graduates' writing skills and ability depending on the tasks they are assigned. For instance, in the communication and media department, the fresh recruit is expected to be able to write advertisements, promotional materials, develop management papers on marketing ideas, and write on the organisation website and social media pages. The customer service department requires fresh recruits to reply to emails and write letters of correspondence to customers and passengers. In the department of flight operations, the fresh recruit are should be capable of writing emails to the relevant departments to ensure no irregularities in flights planning.

In the human resource sector, the fresh recruit should be able to present reports on manpower requisition and planning, write proposals for training, write memos to announce companies' decision, and write job vacancy advertisements. Therefore, trainees should be provided with sufficient practice to utilise authentic materials or texts and practise writing in the aforementioned scenarios to ensure that the tasks appear authentic to trainees. Besides, trainees should be familiar with the expected level of writing ability, which is sought by prospective employers when hiring fresh recruits.

The list of written documents expected of fresh recruits or graduates is presented in Table 4.17. The types of written documents listed are the types of documents that graduates or fresh recruits are usually assigned to produce. The writing skills expected of AVM graduates is shown in Table 6.3.

Table 6.3: The Writing Skills Expected of AVM Graduates

Level	Skill
Lower Level	• Writing emails for daily updates on operations, training, and announcements • Writing job application documents • Writing business correspondence letter (e.g., to inform, complaint, apologise, goodwill, and negative messages)
Higher Level	• Write business and management proposals and papers for aviation-related services • Writing legal contracts and agreements • Writing promotional materials for magazines and website

The writing skills shown in table 6.3 were obtained from the PSA findings presented in chapter 5. The results for the writing skills expected of AVM trainees were then segregated into two levels; lower level and higher level, based on the MQA requirement. The findings presented in table 6.3 is also valuable to enable the ESP teachers to decide the appropriate assessment for the AVM trainees based on their level of study.

Apart from investigating the writing output, challenges and skills expected of fresh recruits, the respondents were asked to describe how they rate the language ability based on four competency levels; weak, satisfactory, good and excellent. This is followed by a discussion regarding the summarised description of writing ability as described by the AVM personnel.

Table 6.4: Description of the Writing Skills Based on AVM Personnel Opinion

Weak	Satisfactory	Good	Excellent
• Filled with spelling errors • Grammatical error interrupts understanding. Code switch most of the time • Follows template	• Minimal grammar mistakes • Able to convey the message despite some spelling mistakes or grammatical errors	• Able to produce complex sentences to deliver the message accurately • Shows the right content and figures	• Excellent choice of vocabulary and terminology • Good data comparison • Shows future projection • Highly detailed

• Unable to produce own work • Inability to understand the instruction and deliver good writing	• Able to produce simple sentences to deliver the message accurately • Lack of content and information. • Lengthy • Inconsistent data/information	• Document length produced is concise and has some level of creativity • Grammar, vocabulary, and delivery are on point	• Precise • Play of words, suitable for moods, effective communication to revoke the expected reaction • Goes the extra mile in preparing additional notes

Table 6.4 demonstrates the findings regarding the participants' views of fresh recruits' writing levels based on the four descriptions: weak, satisfactory, good, and excellent. The AVM personnel agreed that writing proficiency descriptor could involve these descriptions, given that no rubrics or test were used to assess the graduates' writing competency. The description of each level consisted of crucial language aspects, including spelling, sentence structure, grammar, choice of vocabulary and terminology, ability to analyse, evaluate, and creativity in writing. It is necessary to note that, although AVM personnel were expected to write for the aviation context, unlike technicians and engineering who wrote short and technical form sentences, the AVM personnel were required to include the aforementioned language aspects in their writing. This action was in line with the purpose of their writing, which was for business purposes.

To ensure that the descriptor for writing criteria was appropriate to assess trainees' writing ability, the descriptor was validated. The validation process is illustrated in Chapter 3. Following the identification of the types of written documents and examination of the writing criteria, the next step was to determine the type of assessments to be used for validation purpose. The assessment selected for the mock assessment was writing a Job Application Letter due to its high importance as a written document that fresh recruits and graduates produce when applying for a job. In most cases, this letter became the

reference used by employers and HR managers in selecting candidates for an interview or job.

A class of 40 students of Semester 7 students was selected for the mock assessment. The trainees were given the instruction paper, which required them to respond to a job vacancy by writing a job application letter and resume. For the validation process, only the job application letter was used, provided that the majority of the trainees used the standard template of the resume. Therefore, the letter was analysed as more variations were present in the written text. From the 40 students, only 20 students submitted their job application letter. The trainees' letters were then shortlisted, while five samples were selected for validating the descriptor of the writing criteria. These samples were selected as the participants involved in the evaluation process had limited time to analyse the samples. For assessment purpose, the trainees were identified as "candidates" to create an authentic atmosphere of the interview.

6.5.1 Evaluation of the Writing Descriptor

The process of validating the criteria listed in the writing descriptor was to ensure that the criteria employed for assessing trainees' English proficiency fulfil the objectives of the proposed ESP course. As stated in Chapter 3, the validation process was performed using two types of respondents: lecturers and AVM personnel. The first group of respondents comprised English lecturers from the institution, who are also ICAO ELPT Raters who have undergone training and gained experience in testing ATCs and pilots. Besides, these lecturers are experienced in teaching AVMT trainees. The second group consisted of AVM personnel with experience in recruiting graduates and supervising trainees.

The process was initiated with the first group which is the lecturers. The session began with a briefing to inform the lecturers on the aim and procedure of the mock assessment.

After consent was obtained from the lecturers, they were provided with a set of selected

sample job application letters. The time taken for this phase was 20 minutes. The

following table is the result of the mock assessment.

Table 6.5: Lecturers Rating of Written Assessments Samples

Id of participants	Lecturer 1 Rating and general comment	Lecturer 2 Rating and General Comment	Lecturer 3 Rating and General Comment
Candidate 1	1. Lack of content 2. Does not sound convincing Level: Satisfactory	1. Articles (missing 'a' and 'the') 2. Few grammatical errors 3. The tendency to repeat words e.g., desire 4. Good general statements 5. Lack of specific details on knowledge and experience Level: Good	1. Use of simple words and simple sentence structure 2. Tendency to repeat same words 3. Few grammatical errors 4. Lacks details, which leads to uncertainty on skills and capabilities Level: Satisfactory
Candidate 2	1. Inappropriate choice of words, structure and grammar 2. Lack of control Level: Satisfactory	1. Has a structure 2. Long sentences to express the idea in the 2nd paragraph 3. Wrong choice of words 4. Poor grammar and spelling error 5. Poor writing, making it unappealing Level: Weak	1. The use of simple words 2. Attempts to write complex sentences but not successful 3. Grammatical error impeding the meaning of the sentences 4. Lack of vocabulary 5. Content that lacks organisation 6. Lack of specific details Level: Weak
Candidate 3	1. Missing address of the receiver 2. Follows template 3. Lacks control	1. Missing receivers' address and name 2. Simple and straightforward 3. Minor mistakes in grammar 4. Content is focused on strength	1. The font size is not suitable – lack of content 2. Simple and predictable words 3. Use of few compound sentences 4. Slight grammatical error

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			5. Lacks content especially examples or evidence.
	Level: Weak	Level: Satisfactory	Level: Satisfactory
Candidate 4	1. Formatting is not based on current practice 2. Lack examples or evidence to support content. 3. Has a good story Level: Satisfactory	1. Good command of English 2. A minor error in expressing ideas 3. A minor error in grammar 4. Good in expressing her strength Level: Good	1. Formatting error 2. Acceptable choice of words 3. Few grammatical errors. 4. Able to provide details but still lacks evidence 5. Proper transitions. Level: Between satisfactory and good
Candidate 5	1.Good elaboration 2. Good flow of ideas Level: Good	1. Repeating statements 2. Long winding sentences in paragraph 3. 3. Poor choice of words 4. Punctuation error 5. Minor grammatical error 6. The flow of ideas throughout the letter Level: Satisfactory	1. Not careful in punctuation 2. Words are simple, predictable, and sometimes not suitable 3. Lengthy sentence for paragraph 3 4. Repetitive ideas 5. Cosmetic (formatting) shows that the candidate is sloppy Level: Satisfactory

Table 6.5 presents the comments of the lecturers, the levels awarded, and their opinions on the candidates' language proficiency for the job. The results of the lecturers' ratings indicated the similarity in the opinions by Lecturer 2 and Lecturer 3 for all the candidates, except for Candidate 1. All three lecturers agreed that the content of the letter prepared by Candidate 1 lacked specific details such as skills and experience for the job. Besides content, the letter was found to have few grammatical errors and repetitive words, such as "desire". It was also noted that Candidate 1 used simple sentences to make general statements. As for Candidate 2, the lecturers presented a similar opinion that the candidate

used the inappropriate and wrong choice of words. The writer also showed inadequate control on the sentence structure and vocabulary used, which was indicated through the spelling and grammatical errors, including poor writing skills.

Notably, differences were recorded between the differences by all three lecturers regarding Candidate 3. To be specific, Chapters 1 and 2 agreed that the candidate's letter appeared to follow a standardised template and was straightforward. Furthermore, the receiver's address was missing, which led to a formatting issue. Similarly, Lecturer 3 recorded this issue and remarked on the inappropriate choice of font size used in the letter. Lecturer 1 highlighted the lack of control, while Lecturer 3 mentioned that the letter appeared to be lacking in its content as there was no example or piece of evidence. However, Lecturer 2 perceived that although Candidate 3 made minor grammatical mistakes, the content was focused on the candidate's strength. As a result, the candidate was classified as "satisfactory". Lecturer 3 also ranked Candidate 3's proficiency level as "satisfactory" due to the use of simple and predictable words by the writer, including the attempts of using compound sentences.

In respect of Candidate 4, Lecturers 1 and 3 highlighted that the format of the letter adopted was no longer in use, while the writer did not present adequate evidence to support his details. Lecturers 2 and 3 identified minor grammatical errors in the letter and how the writer used transition words to create a flow. Meanwhile, Lecturer 3 stated that the writer's choice of words was acceptable. However, Lecturer 2 observed that the writer had a good command of English and expression of strengths, which resulted in a "good" rating. The last candidate, candidate number 5, was rated "good" by Lecturer 1 as the writer was observed to have good elaboration and flow of ideas. However, other lecturers stated that the writer had the tendency to repeat the statements and write long sentences. Additionally, the writer was found to face problems with punctuation and formatting

besides the issue with the choice of words used, given that the words were simple, predictable, and not suitable in some cases.

Based on the feedback presented in Table 6.5, the next step was to categorise the lecturers' feedback. Figure 6.1 below illustrates the emerging criteria that the ICAO-trained lecturers highlighted based on the assessment performed on the writing samples.

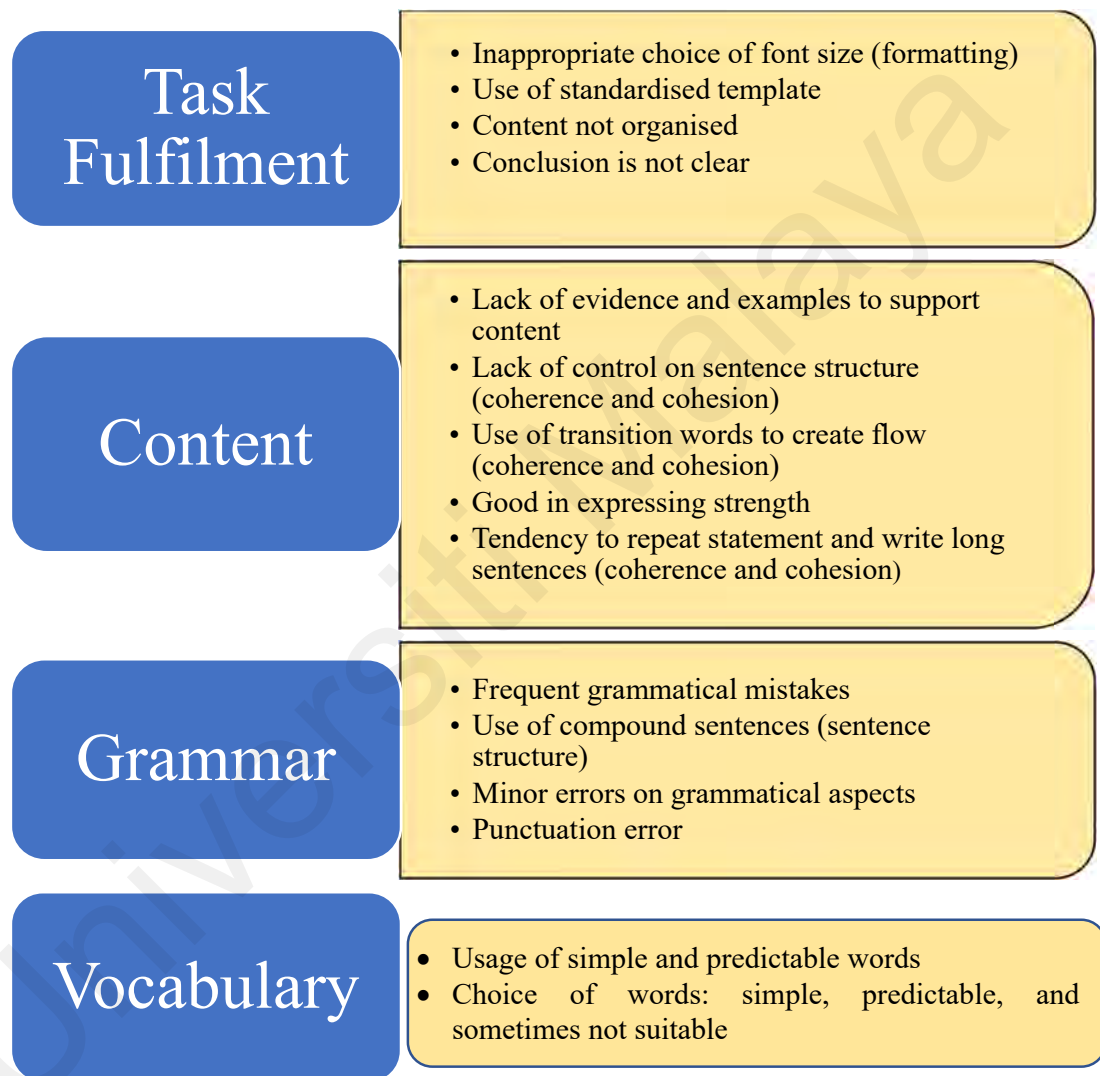| Task Fulfilment	• Inappropriate choice of font size (formatting) • Use of standardised template • Content not organised • Conclusion is not clear
Content	• Lack of evidence and examples to support content • Lack of control on sentence structure (coherence and cohesion) • Use of transition words to create flow (coherence and cohesion) • Good in expressing strength • Tendency to repeat statement and write long sentences (coherence and cohesion)
Grammar	• Frequent grammatical mistakes • Use of compound sentences (sentence structure) • Minor errors on grammatical aspects • Punctuation error
Vocabulary	• Usage of simple and predictable words • Choice of words: simple, predictable, and sometimes not suitable

Figure 6.1: Written Assessment Criteria

The writing criteria listed above, namely 'task fulfilment', 'content', 'grammar', and 'vocabulary', are the criteria that emerged based on the feedback received from the lecturers. The four proposed criteria proposed were focused on assessing trainees' proficiency and communication skills in writing. The task fulfilment aspect emphasised

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the identification of the trainee's ability to understand the instructions on writing tasks, such as writing report, proposals, letters, email, or management papers. Furthermore, task fulfilment aims to evaluate the trainee's ability to fully address all parts of the writing task with relevant, extended, and well-supported ideas.

The content aspect focused on assessing trainees' ability to write with good coherence and cohesion besides ensuring that the content was properly developed with supporting reasons, data comparison, examples, and explanation to support an opinion. The grammar aspect was dedicated to gauging the trainee's ability to use a wide range of structures with flexibility, grammar accuracy, and free of punctuation error. Meanwhile, the 'vocabulary' aspect observed the trainee's ability to use a wide range of vocabulary and terminologies with natural and sophisticated control. Overall, given that the AVM trainees must master aviation, business, and law terminologies, these criteria required them to demonstrate a good repertoire of words in their written work.

The next step was to obtain the lecturers' feedback on the ratings used to assess the candidate's proficiency level. The extracts for the feedback to the research questions are as follows.

Question 1: How do you view the candidates' English proficiency in general?

"A mixture of all levels except for excellent." – Lecturer 1

"Quite satisfactory." – Lecturer 2

"Mixture of weak, satisfactory and good." – Lecturer 3

Question 2: What is your opinion of the rubrics used to assess participants' English proficiency?

"…The rubrics should mirror the assessment criteria… The rubrics are suitable for the overall comment to make it easier for the assessor to rate the scripts… You can extract whichever point that is suitable from the ICAO descriptor."- Lecturer 1

"For example, if you have grammar... you have poor, satisfactory, excellent performance for grammar... the ICAO descriptor is more consistent." – Lecturer 2

"The rubrics should have the levels for what needs to be assessed." – Lecturer 3

Question 3: What other features would you like to see in the scripts? Please elaborate on why are those criteria important to you?

"For me, explanation of the content... I would like to see more details on content specifically on what they are writing about." – Lecturer 1

"It would be good if you could adapt the ICAO levels, which are six levels rather than only 4 poor, weak."- Lecturer 2

The purpose of conducting the group discussion interview with the lecturers was to obtain feedback about the criteria they sought for in trainees' written work and their comment on the written assessment descriptor. Overall, the lecturers commented that the candidates consisted of various levels of proficiency, namely good, satisfactory, and weak proficiency levels. However, no candidate has rewarded an excellent level of proficiency. In respect of the second question that was obtaining opinions regarding the rubrics used to assess participants' proficiency, the overall comment was that rubrics should be more specific to address the standards of the assessment task. Furthermore, the marking rubric should contain detailed descriptors of the standards for several criteria, preferably in the form of a matrix. Ideally, the lecturers suggested that the rubrics descriptors should be similar to the ICAO holistic descriptors, with six levels of standards to define the performance and criteria of the written assessment.

The response presented for question 3, which focused on other features that the lecturers would like to see in the scripts, was more detailed on the content. Lecturer 1 highlighted that the trainees should elaborate further on the written task. Content is important to determine whether the trainees understood what they were writing about.

Meanwhile, although Lecturer 2 stated that no other features were required in the writing scripts, the writing rubrics descriptor should be more descriptive to enable trainees to prepare according to the requirements of the markers or assessors. Based on the feedback received from the three lecturers, it could be concluded that the EAMT comprises trainees with various levels of proficiency. However, the lecturers specified that six levels should be present to describe the proficiency levels of the trainees instead of the 'excellent', 'good', 'poor', and 'weak' levels. To illustrate, the rubrics descriptor should be more precise in describing each language aspect that is being evaluated, from the minimal to the desired expectation.

In respect of the opinions mentioned by the lecturers, the next step taken was to revise the rubrics descriptor. The IELTS, TOEIC, and ICAO descriptors were taken into consideration, while several criteria were adapted when drafting the rubrics descriptor for a new written assessment. The rubrics descriptor comprised the main language aspects, namely task fulfilment, content, grammar, and vocabulary (Figure 6.1), with the standard being revised from four to six levels. The revised written assessment rubrics descriptor is presented in Table 6.5

Table 6.6: Writing Descriptor for Assessing AVM Trainees

	Task Fulfillment	Content	Grammar	Vocabulary
Level 6 Excellent	Fully addresses all parts of the task. Goes the extra mile in preparing additional notes.	Content is well developed. Provides well-supported reasons, data comparison, examples, or explanation to support an opinion. Uses cohesion in such a way that it attracts no attention.	Uses a wide range of structures with flexibility and accuracy.	Uses a wide range of vocabulary and terminologies with natural and sophisticated control. Good play of words.
Level 5 Very Good	Sufficiently addresses all parts of the task. Presents a well-developed response to the question with relevant, extended, and supported ideas.	While the content is properly organised with a clear, coherent, and good flow of supporting ideas, the examples and supporting details may be inadequate. Manages all aspects of cohesion well.	Uses a variety of complex structure. Has good control of grammar and punctuation with minor errors that occur only as "slips".	Uses a sufficient range of vocabulary.
Level 4 Good	Address all parts of the task. Presents a clear position throughout the response. Has the tendency to overgeneralise and/or support ideas that may be less relevant. The conclusion is unclear.	Presents a clear central topic within each paragraph. Relevant supporting ideas are present, although they may be inadequately developed/unclear. Uses a range of cohesive devices appropriately.	Uses a mix of simple and complex structures. Creates some errors in grammar and punctuation although they rarely reduce communication.	Uses an adequate range of vocabulary for the task. Attempts to use terminologies, but with some inaccuracy.

Level 3 Satisfactory	Addresses the task partially; the format may be inappropriate in several places. Expresses a position although development is not clear and no conclusion drawn.	Presents information with some organisation. However, a lack of referencing and overall progression may occur. May be repetitive. Paragraphing may be inadequate. Uses cohesive devices effectively, although the cohesion within or between sentences may be faulty.	Possesses certain ability to produce grammatically correct sentences, however, limitation persists. Inadequate use of cohesive devices.	Uses only basic vocabulary which may be used repetitively.
Level 2 Weak	Responds to the task only in a minimal way. Presents a position although it is unclear. The format used may be inappropriate.	Present information and ideas although these are repetitive, irrelevant, and not well supported. Repetitive and paragraphs appear confusing. May use a highly limited range of cohesive devices.	Attempts to write simple sentences, however, many errors in grammar and punctuation are present, which may distort the message. Uses inappropriate cohesive devices.	Extremely limited range of vocabulary and expression, which may be inappropriate for the task.
Level 1 Very weak	Does not adequately address any part of the task. Follows template.	Limited ability to express response or opinion. Fails to communicate any message.	Unable to produce grammatically correct sentences. Cannot use sentence forms except memorised phrases.	Incorrect word choices. Can only use few isolated words.

The revised writing rubrics descriptor should be tested and evaluated to establish whether it is adequate to be used for assessing the trainees' or graduates' written work. Hence, the revised rubrics descriptor were tested using the same samples, although this round of assessment was performed by the aviation management personnel themselves. The second round of assessment involved five aviation management personnel as the assessors were randomly selected based on their agreement to participate and experience in recruiting and supervising fresh recruits. The evaluation performed by the personnel is as follows.

Table 6.7: Ratings of Sample Written Script

Respondent	Candidate 1	Candidate 2	Candidate 3	Candidate 4	Candidate 5
AA2	5	3	2	3	3
PA1	3	3	3	5	4
PA2	Between 3 and 4	2	3	4	3
VA1	4	3	3	4	4
MS1	3	3	4	5	Between 3 and 4

The evaluation of the writing samples was performed to determine the English proficiency ratings that assessors or prospective employers and supervisors expected of fresh recruits. Table 6.7 above presents the findings from the evaluation, which five different assessors performed with different job scopes as AVM personnel. The candidates' cover letter samples were evaluated based on the writing descriptor that comprised four aspects: task fulfilment, content, grammar, and vocabulary.

As illustrated in the table above, the assessor made an almost similar evaluation on Candidates 2 and 5. All except one assessor rated Candidate 2 with Level 3, while Candidate 5 was rated with Levels between 3 and 4. However, a slight difference was recorded in the evaluation given for Candidates 1, 3, and 4. Specifically, while Candidate 1 scored Levels 3 and 4, one of the assessors rated the candidate with Level 5 and stated, "to attract attention to be considered, the candidate would need to have some form of

creativity or characteristics featured". Candidate 3 was rated with Levels 3 and 4, including Level 2.

According to AA2, grammatical mistakes and the use of less favourable language were the factors leading to the candidate being rated with Level 2. Candidate 4 was rated with Level 2 by AA2, which was attributed to the candidate's unstructured letter, informal language use, and inconsistency in the flow. Furthermore, AA2 highlighted that job candidates should be aware of the type of written task they were assigned to and avoid writing content that did not appear to fulfil the task requirement.

The next part of the form required assessors to provide their feedback on the samples collected and the rubrics descriptors. Some of the responses provided by the assessors are as follows.

Question 1: How do you view the candidates' English proficiency in general?

"In general their proficiency is average, they need to relook the content of their letters. Some have written inappropriate/unrequired points in the letters." – PA2

"The message basically has been passed, however with many grammar and content issues. Major improvements are required in these two categories" – VA1

"Candidates have good messages to convey to the employer about his/her strength and experience. However, simple grammatical errors should be avoided as these may distort the message" – MS1

Question 2: What is your opinion of the rubrics used to assess participants' English proficiency?

"The rubrics are adequate to assess participants' English proficiency."- PA2

"Overall, the rubric is fine. This shall be adequate to define the ability of a candidate at the entry-level. I think more importance shall be given to improve these basic qualities of candidates." – VA1

"The rubrics are well drafted and clearly defines each level. I have nothing to add to this." – MS1

Question 3: What other features would you like to see in the scripts? Please elaborate on why are those criteria important to you?

"Creativity, what contributions do they bring to the table, additional skills helpful in the jobs to be highlighted." – AA2

"Script is fine I think. Instead of simply requiring to write a letter, an essay or a paragraph, I think BAVM students shall be trained to write the actual formats and use the guidelines provided in the ICAO Documents with relevance to specific subjects. For example, for aircraft incident and accident subjects, the most important task of an aircraft accident investigation is to write a respected final report. ICAO has provided in their document DOC-9756-Part-IV, the guideline that needs to be used to write the final report. It includes grammar, content, vocabulary, and task fulfilment among others in a highly detailed manner. This condition will help motivate students and improve their English proficiency in a remarkably ideal environment. However, these levels of proficiency should be considered with an extremely strong foundation"– VA1

"I hope candidates could place more effort in improving grammar and vocabulary and pay close attention to industry terminologies…" – MS1

Based on the opinions gathered, the assessors stated that the samples reflected the average writing proficiency amongst candidates, given that most candidates were rated with Level 3. The most common issue highlighted among all candidates was grammatical

mistakes and the lack of appropriate content and creativity in language use. In respect to Question 2, all the assessors had a similar opinion that the rubrics were well-drafted and covered critical writing skills. When asked about other features that the assessors preferred to see in the scripts, creativity and usage of industry terminologies were suggested. Trainees should be creative in the language use and expression of their content. Candidates should also use more industry terminologies in their written scripts.

Based on the evaluation exercise, it could be summarised that the writing rubrics descriptor was appropriate to be used when assessing AVM trainees writing ability. In addition to task fulfilment, content, grammar, and vocabulary, the writing descriptor should include creativity as an aspect of the writing rubrics. The vocabulary aspect should comprise further detail to include the aviation industry terminologies general and business English vocabulary. Besides, it is important to note VA1's opinion that trainees should be assessed and exposed to the writing of job-related documents, such as investigation reports based on the template shared by ICAO. Overall, the opinions supported the findings that writing skills are vital for AVM trainees, while training and assessment of AVM trainees' proficiency should be aligned with the job requirements. The next section will discuss the speaking descriptor for AVM trainees.

6.6 Developing the Oral Assessment Descriptor

In determining the difficulty of the four language skills, some researchers emphasised that speaking exhibits the highest difficulty (Simin & Tavakoli, 2015; Celce-Murcia & Olshtain, 2000). Speaking involves the process of constructing messages with a meaning, which is a struggle among second language English speakers in most cases. The factors contributing to the challenges in speaking and listening for AVM personnel have been discussed in Chapter Four. These challenges must be addressed in designing the assessment. The trainees' in the AVM programme did not only comprise Malaysians, but

they also comprised other nationalities as they originated from outside of this country, such as Indonesia, Maldives, India, and Zimbabwe. The foreign students were required to meet English entry-level requirement before enrolling on the AVM degree programme. In this case, the speaking and listening assessments used to evaluate AVM trainees' skills should also meet the requirements of well-known English tests requirement or the ICAO ELP holistic descriptor requirement.

Besides reading and writing skills, the NA and DA highlighted the importance of speaking and listening skills, including the types of tasks for which AVM trainees would use these skills, such as making presentations, contacts with business partners from abroad through business correspondence, telephoning, and taking part in technical discussions at conferences, seminars, exhibitions and other technical meetings or international events, social, and professional conversations with English- speaking clients and visitors. The speaking skills expected of AVM graduates is summarized in table 6.8.

Table 6.8: The Speaking Skills Expected of AVM Graduates

Level	Skill
Lower Level	- Managing small talk with colleagues, employees, passengers, clients and customers. - Managing telephone conversations such as enquiry and complaint. - Delivering oral presentation and presenting a proposal - Managing exchanges during an oral interview - Speaking during an internal meeting.
Higher Level	- Speaking during business meetings and business negotiations with clients and stakeholders. - Discussing contract terms and business proposals/plans with clients and the management team. - Speaking via video conference with colleagues and clients. - Delivering research presentations for seminars or conferences.

As shown in Table 6.8, the speaking skills expected of AVM graduates are organized based on the levels. The communication context varies, as presented in table 4.5. Hence, the descriptor used to assess AVM trainees' oral skills should meet the minimum English proficiency level expected by future employers and prepare trainees to communicate naturally and professionally. In this case, the speaking assessment should replicate the real speaking assessments, which are to be conducted on the AVM graduates. The assessments may be performed in the selection stage, job interview stage, or after the selection of trainees for the job. However, the trainees' knowledge about the oral assessment criteria is important in developing and enhancing their oral skills before graduating.

Table 6.9: Speaking Proficiency Expected by Employees

Oral communication tasks	Language skills required	Rating of fresh recruits	Employers' expectation level
1. Job interview 2. Handling passengers 3. Handling telephone calls 4. Presentations 5. Business meetings 6. Conference calls 7. Social interactions 8. Customer service	General English with a range of aviation terminology and abbreviations. Knowledge of basic business and legal terminology would be an advantage.	Average to good	Good to excellent ICAO Level 4 and 5

Besides exploring the AVM personnel's opinion about the expected written output, the interview respondents were required to list the oral communication tasks to be fulfilled by the fresh recruits, the required language skills, and their opinion on the expected level of proficiency. It could be concluded from the gathered responses that as the graduates were new in the company, they were expected to show a good performance in job interviews and when handling passengers and telephone calls, conducting presentations, and attending a business meeting, conference calls, and social interactions. For instance, the customer service department required fresh recruits to have the ability to deliver excellent customer service when speaking to passengers or customers. On the other hand, the safety and security department required these recruits to be able to conduct briefings and participate in conference calls with regulatory bodies.

Apart from asking the respondents about spoken output expected of fresh recruits, respondents were also asked whether the organization uses any rating criteria to assess fresh recruits' speaking ability. Even though most participants stated that they had been informed of the ICAO ELP requirements for pilot and ATCs, they received less or no exposure to the use of the ICAO holistic descriptor. When asked to state their expectation of graduates or fresh recruits' spoken output based on the six levels of the ICAO descriptor, several participants stated that the graduates were expected to demonstrate the ICAO Level 4 or 5.

"*Candidates should be able to demonstrate minimal level 5 during the interview stage.*"
– AA3

According to AA3, fresh recruits or interview candidates must demonstrate Level 5 proficiency during the interview stage. The rest of the participants applied their impression when assessing fresh recruits before and during recruitment. Given that two participants stated that they employed the ICAO holistic descriptors to assess the speaking ability of fresh recruits, it was important to investigate whether the descriptor was suitable

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for assessing AVM graduates and trainees' oral skills abilities. The validation process has been explained in Chapter 3. Besides, the ICAO holistic descriptor aimed to assess the test takers' ability to use common words, aviation vocabulary jargon and phrases, and how the test taker managed unexpected events. Provided that the types of expected oral output are presented in Table 6.6, the type of assessment to be used for validation purpose would be determined.

The selected assessment was the mock job interview. Similar to the writing assessment, the job interview is commonly the first association that graduates make with prospective employers. Based on the interview conducted in this study, it was found that some hiring personnel assessed the recruits' oral proficiency and ability to communicate through phone or video call interview. The recruits who succeeded in the interview would proceed to the next level of selection.

The same group of trainees were involved in the mock job interview, which was organised at the campus. The mock job interview was for the job vacancies that trainees responded to in the written assessment. The interviews were recorded, while trainees were informed about the purpose of recording the mock interview session. Furthermore, they signed the consent form to allow the recordings to be used for sample collection purpose. Each interview lasted for approximately five to seven minutes. The questions included in the interview involved the exchange of general information and one problem-solving question, while the questions related to the job were not included. To illustrate this point, the purpose of the oral or spoken assessment is to determine AVM trainees' proficiency and speaking ability. From the 17 students who participated in the mock job interview, five recordings were selected to evaluate the candidates and validate the suitability of using the ICAO holistic descriptor to assess the oral output.

The oral interview recordings were assessed by the English lecturers who were involved in assessing the written transcripts. The assessment was performed on the in-

house raters to compare the levels awarded to the candidates. Given that ICAO holistic descriptor was used for assessing the candidates, the results of the rating process are as follows.

Table 6.10 : Lecturers' Rating of Oral Assessments Samples

Respondent	Candidate 1	Candidate 2	Candidate 3	Candidate 4	Candidate 5
Lecturer 1	Low 4	Moderate 4	Moderate 4	5	3
Lecturer 2	4	3	3	5	3
Lecturer 3	4	3	4	5	3

The table above presents the differences in the ratings given to the candidates. Lecturer 1 rated Candidate 1 with low level 4. It was stated that the candidate's pronunciation had a strong influence on Bahasa Melayu and involved the use of wrong words to describe feelings. Besides, the candidate showed hesitation in his speech. According to Lecturer 1, although Candidate 1's English proficiency and speaking ability were rated with low level 4, his proficiency and communication ability were sufficient in the aviation organisation. Lecturer 2 rated Candidate 1 with a level 4 and stated that the candidate demonstrated the proficiency and communication ability to work in the aviation organisation. Meanwhile, Lecturer 3 rated Candidate 1 with level 4 and stated that the candidate's pronunciation, particularly the intonation and stress, was influenced by the first language in some cases. The candidate was able to produce basic grammatically structure sentence patterns but with errors especially when the participant was faced with difficulty finding the suitable words or paraphrasing the vocabulary was lacking. Similarly, Lecturer 3 stated that the candidates used distracting fillers.

In respect of candidate Number 2, Lecturer 1 rated the candidate with moderate level 4. According to Lecturer 1, the candidate's voice was 'too soft', which possibly affected her pronunciation. Besides, the candidate made frequent mistakes in the form of wrong language structures and tenses. On the other hand, Lecturer 2 rated Candidate 2 with

Level 3 due to the lack of vocabulary variation in the speech. Therefore, although the pronunciation, structure, fluency, comprehension, and interaction of the candidate were rated with level 4, Lecturer 2 specified that the candidate's English proficiency was not sufficient in enabling the candidate to work in the aviation organisation. Lecturer 3 rated Candidate 2 with Level 3 as the candidate appeared to deliver memorised speech due to their tendency of committing grammatical errors in answering questions related to the reasons for choosing the job and plans ("I'm studied, mostly story their, agency of travel, I'm very like"). However, when answering questions related to the company, the candidate was able to produce grammatically correct sentences. Besides, the presented answers were especially brief, while the range of vocabulary was limited and the candidate often repeated the same word.

Lecturer 1 rated Candidate 3 with moderate level 4 and stated that the candidate showed minor sentence structure errors. Besides, the candidate presented adequate proficiency and communication skills to work. On the other hand, Lecturer 2 rated candidate 3 with Level 3 due to the lack of variation in the vocabulary. Lecturer 3 rated candidate 3 with level 4 due to minor pronunciation issues, indicated by the inappropriate stress on 'r' when pronouncing the "word" vs "world". This feature contributed to ease of understanding when pronouncing certain words. Even though the candidate's frequent phrasing and pausing were inappropriate in most cases, the candidate could employ a limited use of discourse markers or connectors, such as 'despite' and 'but'.

As for Candidate 4, Lecturers 1 and 2 agreed that the candidate was rated with an extended 'level 5'. Specifically, Lecturer 1 stated that Candidate 4's proficiency 'demonstrated influence from the first language, but not distracting', while Lecturer 2 stated that the candidate demonstrated all the criteria listed in the holistic descriptor. The lecturers agreed that the candidate's proficiency and communication ability were sufficient to enable her to work in the aviation industry. Following that, Lecturer 3 rated

Candidate 4 with level 5 and marked the candidate's pronunciation and structure with level 6. There was an evident use of fillers such as 'err', and the candidate presented an immediate response to the questions.

Candidate 5 was rated with 'Level 3' by all three lecturers. According to Lecturer 1, the candidate presented poor vocabulary skills, as indicated through the wrong use of vocabulary to express his ideas and opinion. Besides, the candidate was faced with issues in fluency due to the repetition of his words and phrases. Additionally, the use of fillers, distracting pauses, and hesitation was evident in the candidate's speech. Lecturer 2 rated Candidate 5 with Level 3 as the candidates' overall performance indicated the 'lack of vocabulary variation'. This condition was a similar factor used by Lecturer 1 for rating the candidate with Level 3. The lecturers also agreed that Candidate 5's English proficiency and communication skills were insufficient for working in the aviation industry. Lecturer 3 rated candidate 5 with Level 3 and agreed that the candidate's English proficiency and communication skills were not sufficient for working in the aviation industry. The candidate had the tendency to utter chunks of phrases, particularly when answering the first question. Even though the candidate's general vocabulary was sufficient, his pausing and hesitation were often inappropriate possibly due to a poor level of comprehension and insufficient ideas when he was responding to the questions.

Besides assessing the sample interview recordings, the next section explored the lecturers' views on the candidates' English proficiency and communication ability, including their opinion and suggestions on using the ICAO holistic descriptor. The responses are as follows.

Question 1: How do you view the candidates' English Proficiency in general?

"A mixture of levels 4 and 5." – Lecturer 1

"Only candidate No. 4 is above average." – Lecturer 2

"The candidates mostly have variety of levels of English proficiency. The range of the level of proficiency can range from intermediate to proficient. The level of proficiency varies due to certain reasons, such as the lack of vocabulary, background knowledge on the topics discussed, and nervousness to certain extent, which creates fillers and hesitation." – Lecturer 3

As previously discussed, the lecturers' opinion about the candidates' English proficiency were different, as indicated in the response presented for question 1. During the discussion, the lecturers had a positive agreement about the proficiency and communication ability among Candidates 4 and 5. Meanwhile, Candidates 1, 2, and 3 presented different opinions. However, based on the responses, the lecturers highlighted important aspects, such as vocabulary, pronunciation difference, the use of fillers and discourse markers in fluency, sentence structure, and comprehension level. In this case, these aspects should be taken into consideration to improve future AVM trainees' proficiency and communication skills.

Question 2: What is your opinion of the rubrics used to assess participants' English proficiency? Is it sufficient to assess trainees' spoken proficiency?

"Suitable to test the recordings." – Lecturer 1

"The rubric helps to assess and is sufficient." – Lecturer 2

"Partly yes because not all statements used in the rubrics are suitable to be used to assess participants' English proficiency." – Lecturer 3

The lecturers unanimously agreed that the ICAO holistic descriptor was appropriate and sufficient to be used as a rubric to assess the candidate's proficiency and speaking skills. However, Lecturer 3 specified that when testing the AVM comprehension level, the examiner should consider a method to test the candidates' level of ability in handling certain situations that might occur at the workplace, such as problem-solving situations or emergency situations.

Question 3: What other features would you like to see in the scripts? Please elaborate on why are those criteria important to you?

"Not applicable." – Lecturer 1

"The features are sufficient to assess their language proficiency." – Lecturer 2

"Overall, the rubrics should be revised based on the needs. What is the purpose of using these rubrics when assessing a trainee? Who will be using these rubrics? Is the examiner familiar with these rubrics?..." – Lecturer 3

The lecturers' feedback implied that there were no other features that they would suggest to be included in the recordings besides candidates pronunciation, structure, fluency, vocabulary, comprehension, and interaction. However, during the discussion session, Lecturer 2 suggested that apart from the criteria listed in the descriptor, the assessment could include the criteria of assessing 'how do candidates sell themselves' when assessing trainees' for a mock interview. The lecturer stated that the candidates lacked the ability to talk about their skills and strengths. Similarly, Lecturer 1 agreed with this opinion and highlighted the criteria employed to assess the candidates' ability to interact. It was also suggested that if the candidates' interaction ability was to be tested through the other forms of speaking assessment, such as the role-play of handling passengers, telephone, or conference calls, presentation, and business meeting, the teacher should play his or her role and interact with the trainees.

The interaction descriptor emphasised that candidates should be able "to clear misunderstandings by checking, confirming or clarifying" – ICAO Holistic Descriptor. In this case, the ESP or EL teacher must also consider how to ensure fair assessment when assessing the candidates individually and the AVM trainees' interaction ability. Lecturer 3 suggested that although the ICAO descriptor could be used to assess AVM trainees, the examiner must understand the importance of assessing AVM trainees, while some of the criteria listed in the rubric should be explained to the AVM trainees in the contexts of

their future workplace communication. Hence, the findings of the needs analysis on the TSA and PSA must be integrated when assessments for the proposed EAM courses were designed and when the descriptor was being used. The next section will discuss the evaluation of the speaking descriptor by the representatives from the industry.

6.6.1 Evaluation of the Speaking Descriptor

The same exercise was performed to assess the candidates' speaking proficiency. Following the evaluation of the sample scripts was an evaluation of the sample recordings by the assessors, who were provided with an earphone to ensure that no interruption occurred when the recordings were listened to.

Table 6.11: Evaluation Results of Speaking Samples

Respondent	Candidate 1	Candidate 2	Candidate 3	Candidate 4	Candidate 5
AA2	3	3	3	5	2
PA1	3	4	3	Between 5 & 6	2
PA2	Between 3 & 4	3	4	Between 4 & 5	3
VA1	3	4	Between 3 & 4	Between 4 & 5	3
MS1	4	4	4	5	4

Table 6.11 above presents the findings from the rating exercise, which was performed to determine the assessor's opinion on the sample recordings obtained via the mock interview session. The samples were evaluated based on the ICAO descriptors, pronunciation, structure, vocabulary, fluency, comprehension, and interaction. A copy of the holistic descriptor was distributed to the assessors, who were required to rate the candidates based on the six criteria ranging from Level 1 to level 6. Generally, the ratings given to the candidates ranged from Level 3 (pre-operational) to level 4 (operational), with Candidates 4 and 5 as the exceptions. While the score given to Candidate 4 ranged

from 4 to 6, the candidate could be rewarded with an average of level 5 as the majority were rated with level 5. On the other hand, Candidate 5 scored lower ratings, which comprised level 2 by AA2 and PA1, level 3 by PA2 and VA1, and level 4 by MS1. In relation to this, AA2 highlighted that grammatical errors were present in the letter and the content was not related to the applied job. Furthermore, VA1 stated that the candidate's overall proficiency appeared to be average with grammatical mistakes. The next section will discuss the assessor's opinion and feedback about the rating descriptor.

Question 1: How do you view the candidates' English Proficiency in general?

"In general, candidates' English proficiency is in the moderate level, which is acceptable as fresh grad worker. What distinguishes them between one another is the ability to express more accurate thoughts on the discussed points, such as companies description and such." – PA2

"In general, they have the basic concept of speaking in English that is required for an entry-level aviation working environment. However, except for one student, the candidates are not qualified in my view to be involved in a competitive aviation working environment. Pronunciation is not to the level that I would expect them to have in the industry. Overall, the structure for all looks ok for me. Most of them lack fluency, comprehension, and integration. Aviation itself has a different language and list of special vocabularies and certain terms that we use. It includes regular meetings with many clients, suppliers, etc. Since BAVM students are being trained for the managerial areas of the business, these are very important qualities that candidates need to have in their speaking abilities to compete in today's working environment." - VA1

Question 2: What is your opinion of the rubrics used to assess participants' English proficiency?

"Comprehensive, covered from pre-elementary to expert skill." – PA1

"The rubrics used is sufficient to assess trainees' spoken proficiency. I have nothing to add to this." – MS1

"It's a great rubric as it clearly states every criterion to help assessors." - AA2

Question 3: What other features would you like to see in the scripts? Please elaborate on why are those criteria important to you?

"Attitude of interviewees. Most of them are monotonous. There is no passion on what's offered."- AA2

"Suggestions for the candidate to explore more on industry terminologies, topics, and basic knowledge. This may improve overall understanding on the industry." – MS1

It could be summarised from the analysis of the results and feedback that the candidates comprised a mixed level of proficiency and competency. Some candidates showed poor structure, lack fluency, and vocabulary. The most common issue highlighted by the assessors was pronunciation, which could lead to pronunciation issues or errors that disrupted the candidates' communication. In respect of Question 2, all the assessors presented a similar opinion that the ICAO holistic descriptor was comprehensive and sufficient as it clearly described each criterion of spoken proficiency. When asked about other features that the assessors would like to witness in the scripts, they suggested the creativity and usage of industry terminologies. They also highlighted that, except for Candidate 4, the rest of the candidates sounded monotonous or scripted.

As stated by VA1, trainees must possess the desired proficiency, which was the integration of pronunciation, structure, vocabulary, fluency, comprehension, and

interaction. This condition was attributed to the job requirement that demanded future AVM personnel to be professional in their communication. The ratings and feedback shared by the assessors demonstrated that ICAO holistic descriptor was the most suitable rubrics to assess AVM trainees' proficiency. The details of each descriptor in the rubric indicated that the descriptor covered work-related topics and non-work-related contexts. Although the AVM trainees were not required to undergo a mandatory proficiency test, the ICAO holistic descriptor was sufficient to gauge AVM trainees' proficiency for the job whenever necessary.

6.7 AVM Trainees Reading and Listening Skills Assessment

As explained in Chapter Four, reading and listening are receptive skills. However, these skills are crucial for AVM trainees as they mainly aim to test the readers' or listeners' decoding ability. They also influence the workplace communication process. As stated in Section 6.1, the primary aim of RQ3 is to determine the design of the ESP curriculum for AVM trainees to meet workplace requirements. The study also discussed how the receptive skills of trainees could be assessed to enhance trainees' overall language skills to meet the industries requirement and overcome the challenges when performing the reading and listening tasks.

In the traditional teaching method, listening comprehension skill facilitates the acquisition of knowledge and predicts the level of skill that will be achieved in reading (Sticht et al., 1974; Sticht & James, 1984, Diakidoy, 2005). Furthermore, EL teachers are compelled to offer reading activity, followed by listening tasks or vice versa. However, with the advancement of technology, the inclusion of reading task in the lesson for listening skills is currently not necessary. Listening audio materials are easily accessible, while channel noise involves minimum interference.

Reading and listening skills involved the same comprehension processes. The research on these skills identified their similarities. To be specific, both these skills sought to assess the learners' memory retention, vocabulary skills, analysing, and inference making skills (Wolf et al., 2019). These predictors are normally included in the descriptor used to assess trainees' proficiency in these skills. It is noteworthy that before observing the predictors, knowing what actions should be made by the trainees with the text or documents they have read and post-listening activities is important.

Table 6.12: Reading and Speaking Skills Expected of AVM Graduates

Reading	Listening
1. Reading and comprehending graphic information: tables, diagrams, charts, and graphs. 2. Reading actual document samples from the workplace: manuals, annexes, bulletins, emails, 3. Reading actual reading materials from the workplace: reports and news on latest technology and development 4. Reading delay reports and investigation report 5. Comprehending and filling out a request and report forms 6. Reading and comprehending requests, complaints, and reports 7. Reading and comprehending aviation news and bulletins 8. Reading and comprehending aviation terminology and vocabulary items, abbreviations, and acronyms. 9. Reading and comprehending business and legal terminology and vocabulary items	1. Listening and comprehending aviation industry documentaries or multi-media documentaries 2. Listening and comprehending aviation presentations 3. Listening and analysing aviation press conferences 4. Listening to and comprehending academic lectures and discussions 5. Comprehending spoken instructions in a range of natural pronunciation 6. Listening to presentations on contract terms and business proposals/plans with staff and clients 7. Communicating via video conference with colleagues and clients

Given that the proposed EAM curriculum is task-based language teaching, the reading and listening skills listed in Table 6.12 should be assessed through task-based activities. The samples of the evaluated ESP teaching materials (Chapter 5) illustrated how reading and listening could be assessed. In pilot and ATC proficiency tests, the speaking and listening proficiency of the personnel were tested concurrently. However, the listening skills expected of AVM trainees did not solely involve listening to communicate as the trainees were required to listen to documentaries and announcements during a press conference and perform several other listening tasks. However, some of these reading tasks did not require any follow-up communications, such as reading news, extracts from manuals, annexes, and several other tasks. Despite the job requirements for the professionals, such as AVM personnel, being involved in the assessment of productive, speaking, and writing skills, the graduates' reading and listening skills should also be assessed. The reading and listening assessments should be presented to the AVM trainees periodically while the EAM course was being conducted to set realistic standards of achievement for AVM trainees.

Language skills are generally taught and assessed based on Blooms Taxonomy, which specifies the way trainees are assessed into three domains. One of the domains is the cognitive domain, which emphasises intellectual outcomes (Dwiastuty, 2016) and is divided into categories or levels. In this case, the lower level consists of remembering, understanding, and applying, while the higher level consists of analysing, evaluating, and creating. The criteria used in assessing this cognitive domain were applied to encourage critical thinking, especially higher-order thinking skills. To assess AVM trainees' receptive skills, the reading and listening skills could be divided into the levels shown in the table below.

Table 6.13: Assessment Level for Reading and Listening Tasks

Level/Skill	Reading	Listening
Lower level	• Reading general articles on the history of aviation and management • Reading forms • Reading emails and memo • Reading news on the latest technology in aviation	• Listening to aviation documentaries: aircraft/airport/ logistics • Listening to lectures and talks • Informative Listening
Higher level	• Reading about airline economics report • Reading project proposals • Reading agreements and contracts • Reading aviation letters • Reading graphic information: tables, diagrams, charts, graphs • Reading manuals and annexes • Reading business and management papers	• Listening to aviation talks and seminars • Listening to briefing • Listening to an aviation-related press release • Listening to presentations by aviation leaders: airline CEO, manufacturers

Table 6.13 presents how AVM trainees' reading and listening tasks could be assessed based on the cognitive domain. For assessing technical trainees, gauging the proficiency based on the lower level is sufficient for the assessment. However, the AVM trainees should be assessed based on the six Bloom's Taxonomy levels for developing professional AVM graduates.

6.8 SUMMARY

The discussion in this chapter addresses research question three. The main objective of ESP curriculum design is to determine how the design of the EAM curriculum meets the workplace requirements. In evaluating this matter, it is necessary to ensure that the designed course meets the minimal criteria of what is expected from the graduate's language ability and oral and written proficiency. A task-based assessment, which is a mock job interview, was designed. Notably, the NA findings demonstrated that task-

based assessments are the most appropriate form of assessment for AVM trainees. Job application letters were collected, while spoken interviews were recorded as test samples. The results of the rating test indicated that the rubrics used to rate trainees' oral and written proficiency were appropriate. Two of the assessors elaborated on candidates' suitability for the job based on their proficiency and attitude, although the remaining assessors did not comment on the suitability of the candidate. However, all the assessors emphasised that the candidates are normally shortlisted based on their job application letter before they are called or scheduled for an interview.

All aviation organisations have different stages in the recruitment process to gauge a candidate's ability. Besides the interview and job application letter, other tests may be used for selecting candidates. However, this study underlined the criteria that should be considered when assessing AVM graduates' and trainees' proficiency and communication skills. The assessment descriptors should be used as the official rubrics for assessing AVM trainees in the task-based assessment listed in the EAM curriculum document. The assessment of the listening and reading tasks listed in Table 6.13 should be included in the task. The next chapter, which is the final chapter of this thesis, will present the summary of the study, the recommendations, and conclusions from the overall study.

CHAPTER 7: CONCLUSION

7.1 Introduction

This chapter presents several conclusions developed in light of the analysis of the research questions outlined in Chapter One. The analysis of the overall findings has been summarised. Based on the summary of the thesis, several recommendations have been made by the programme stakeholders, including teachers, course administrators, and stakeholders. Suggestions for future research and the limitations of this study are presented. This chapter is concluded with a discussion on the significance of the study in conducting NA and developing future ESP courses, especially the courses involving two or more subjects.

7.2 Summary of Thesis

Based on the data collected in this study, three main conclusions could be drawn regarding the communicative needs of AVM trainees. Specifically, English proficiency training is crucial in preparing AVM trainees to communicate professionally at their workplace. This notion was supported by the NA findings on the job scope of the AVM personnel and the extent of their communication in the local and international contexts. In contrast to the conventional ELT approach, the core language skills, namely reading, writing, speaking, and listening, trainees, should be integrated into the curriculum to enable trainees to gain real-life exposure to activities, such as negotiations, presentations, business meetings, and conferences. Trainees should be provided with sufficient authentic exposure to oral and written outputs used by AVM personnel for communication. However, this outcome would be difficult to achieve as these materials are audited for security and safety reasons. Secondly, the proposed EAM course must include the important components of AVM. Figure 7.1 illustrates an important result of the study,

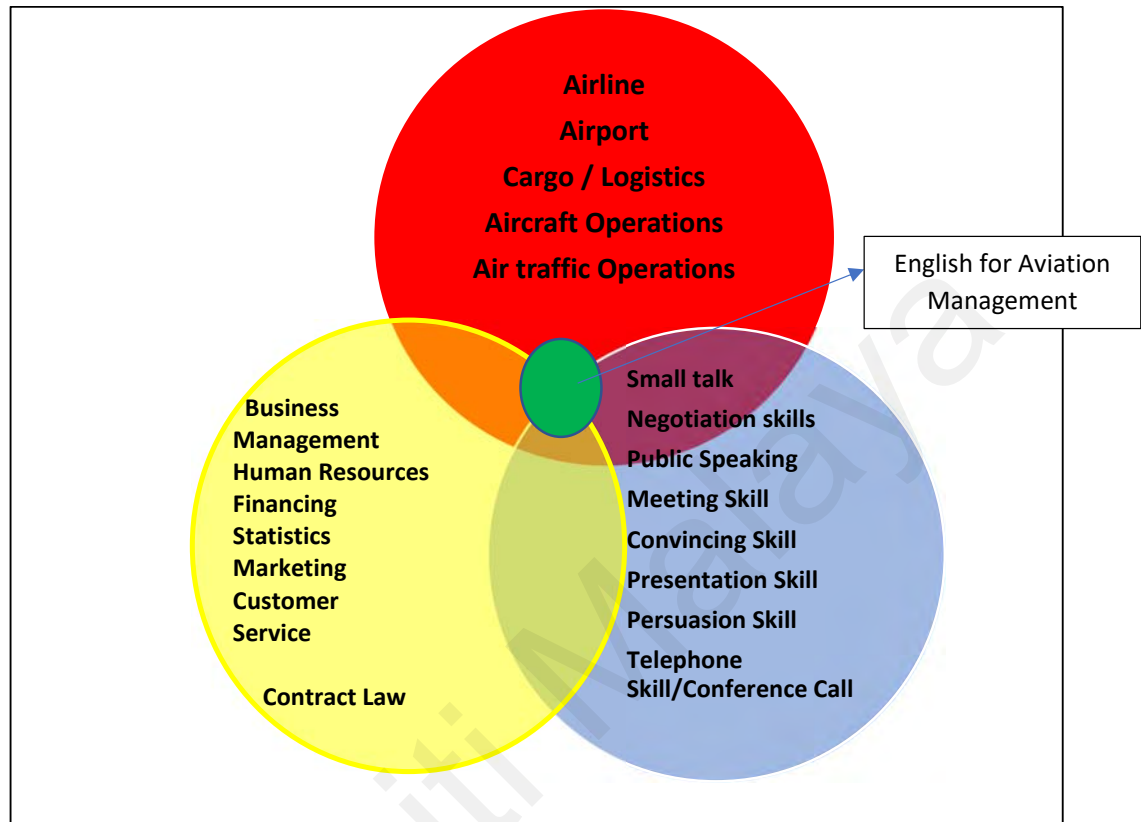which involved the components to be included in the language and communication training among AVM trainees.

Figure 7.1: Components of EAM Curriculum

Figure 7.1 is an illustration of the components that create the EAM curriculum. As described in the NA findings discussed in Chapter Four, AVM is a specialised field of study in which trainees are required to master the knowledge of aviation (red circle) as they will be working in various managerial departments (yellow circle) and communicating professionally by demonstrating expected proficiency and language skills. Notably, aviation subjects are compulsory to be included in the proposed curriculum, along with the list of topics presented in Figure 7.1 based on SMEs suggestion (refer to Table 5.8). However, the ESP teacher must consult with the SMEs to obtain their feedback on the topics for task-based language teaching. In this case, the suggested topics should be used as themes in the teaching topics, materials, and activities of the ESP courses to expose the trainees to the language used for aviation management.

The AVM trainees are required to demonstrate their grasp of managing aviation organisation businesses, HR, financing, and statistics topics, which leads to the importance of including these topics in the EAM curriculum. The component of managerial skills includes contract law, where its course covers topics related to legal aspects in managing the business. In aviation, business agreements and contracts are commonly used to legalise the business terms and conditions between two parties. Some of the AVM personnel in the interview stated the need to read contract agreements, such as Standard Ground Handling Agreement (SGHA). Similarly, SMEs also suggested to include a contract law course for the EAM course topics. As such, the proposed EAM course included lessons and activities related to contract law to enable the AVM trainees to practise the appropriate use of legal language and law terms for managing future workplace tasks.

Critical skills are also essential and must be included in the proposed EAM curriculum. As shown in Figure 7.1, the proposed AVM courses content, specifically aviation, overlaps with business management and communication skills. In this case, the topics, skills, activities, and assessment covered in the EAM curriculum should be related to aviation. Regarding report writing, trainees should be taught about the writing style used in the aviation industry while maintaining the business lingua and demonstrating excellent proficiency and appropriate critical skills in the writing conventions. Given that aviation management involves the local and global community, the proposed EAM course aims to develop AVM trainees' ability to use English professionally when managing aviation business and operations and when communicating in work-related and non-work-related contexts.

The NA and DA findings have demonstrated that the current GE courses content and teaching materials were not sufficient to prepare the AVM trainees in meeting the workplace requirement. Based on the detailed analysis of the language tasks that AVM

was required to have competence in, the suggested topics and the idea of adopting authentic materials in the English curriculum have proven stakeholders' preference for task-based language teaching. Stakeholders emphasised that speaking, listening, reading, and writing are crucial for them to perform their tasks. Even though the recording of observation of real-life communication was not permitted and authentic materials were controlled documents, the workplace situations should be recreated in the courses, while the authentic materials should be adopted for trainees' practice. By creating lessons and assessment tasks, which imitate the situations that are likely to be faced by trainees in real life, all skills would be naturally checked and practised (Rus, 2019).

Even though the current GE course includes some lessons and assessments on meeting skill, job interview skill, and proposal writing and presentation skills, the content is general and not related to the aviation management job scope. Thus, the current GE course should be replaced with an ESP-based curriculum to ensure that the prospective and future trainees could achieve the expected proficiency and gain confidence to communicate efficiently in various work and non-work-related contexts. Furthermore, the inclusion of the proposed ESP courses should be designed by taking into consideration all the features discussed in the evaluation of sample materials, including the practicality of subject and content, suitable language functions, and relevant skills and activities. The ESP course design must include vocabulary enhancement (aviation, general, legal, and business) activities. Besides improving the trainees' listening, pronunciation, and fluency, the proposed EAM course should incorporate videos and simulation activities, such as role-play, visits, and presentations that are designed within the aviation management communication contexts.

Interaction is a vital need for language learning to take place and to enable trainees to practise their language skills and discuss the content to which they are exposed through communication and interaction (Karimi et al., 2019). The writing and reading materials

used in the course and teaching materials must replicate the authentic documents and samples. This approach should be accompanied by reading and writing activities and assessments, which are designed based on real-life workplace situations to enable trainees to gain the basic knowledge of performing the actual tasks when required at their future workplace.

The study stresses the importance of employing proficiency assessments to examine the level of the trainees' English language skills and ensure that they meet the minimum ability expected for acceptance into the workplace. As stated above, given that the proposed AVM curriculum was designed based on a task-based approach, the proficiency assessments must evaluate trainees' spoken and written proficiency. Although the analysis of the findings indicated that all four skills were essential for AVM trainees, the activities proposed stronger emphasis on the improvement in AVM trainees' speaking, listening, and writing abilities. The data from the in-depth interviews proved that most organisations did not present the specific requirements nor use any existing proficiency tests to identify the graduates' proficiency and communication skills. Nevertheless, the majority of the respondents stated that if an assessment was created based on ICAO holistic descriptor, the ratings expected of graduates speaking and listening proficiency would be of Levels 4 and 5. The expected ability of the trainees' writing skills, on the other hand, would be assessed based on the writing descriptor that has been designed based on the criteria described by the respondents who have supervised trainees and possess experience in recruiting fresh graduates.

The newly designed writing rubric was evaluated to determine the appropriateness of the descriptors and the criteria of assessment. The respondents agreed that the minimum level expected for both spoken and written proficiency was Level 4. However, the employers were willing to consider employing candidates with average English proficiency or Level 3 if they demonstrated good communication skills, except for jobs

that required further communication in English, such as customer service and marketing. Overall, the process of realigning the curriculum to meet the AVM requirement does not solely involve the language teacher or course designer.

To fulfil the Ministry of Education's requirements for improving English language proficiency among Malaysian graduates, the proposed ESP curriculum should meet the standards that are set by the education ministry. According to the CEFR, alignment of the education system is an important element in the Malaysia Education Blueprint to boost the level of education to the international standards (Hazita Azman, 2016). In respect of CEFR levels, MOE has reformed the English Language curriculum and adopted the CEFR level descriptors to influence the design of educational objectives, targets, and outcomes of English teaching and learning.

Table 7.1: Benchmarking based on CEFR levels to EAM Courses

Educational Level	Minimum Requirement	CEFR
By the end of Level 1	A2	B1
By the end of Level 2	B1	B2
By the end of Level 3	B2	C1

Table 7.1 illustrates the expectations placed on trainees based on the CEFR assessment criteria. AVM trainees were expected to achieve Level B1 upon the completion of EAM 1, B2 upon the completion of EAM 2, and C1 upon the completion of EAM 3 courses. According to Little (2006), similar to the ICAO ELP requirement, the CEFR does not dictate how languages should be taught, however, it offers a guide to evaluate the students' or trainees' proficiency and language skills in a clear and comprehensible manner to the users. In line with the CEFR, the proposed EAM curriculum consists of scales for listening, speaking, reading, and writing, with the objective to provide training

to enhance trainees' communication skills and proficiency. The alignment of the CEFR requirement is attributed to the following objective:

"Promote and facilitate co-operation among educational institutions in different countries, 'provide a sound basis for the mutual recognition of language qualifications', and 'assist learners, teachers, course designers, examining bodies and educational administrators to situate and co-ordinate their efforts"- (Council of Europe 2001a: 5f.)

The AVM trainees would benefit if the proposed curriculum is made parallel with the ICAO and CEFR. By aligning the CEFR and ICAO requirements to the proposed ESP curriculum, the AVM trainees could also ascertain that their English qualification is recognised by stakeholders and educational institutions if the graduates wish to pursue higher-level education in a different country. Table 7.2 below presents the harmonisation between the expected results from the ICAO and CEFR assessment.

Table 7.2: Harmonisation between the ICAO and CEFR Requirement

EAM course requirement and course level	The minimum requirement for enrolment into the course	ICAO Level	The minimum requirement for enrolment into the course	CEFR Level
By the end of Level 1	L3 and below	**L4**	A2	**B1**
By the end of Level 2	L4	**L5**	B1	**B2**
By the end of Level 3	L5	**L5 or L6**	B2	C1

Table 7.2 illustrates the desired proficiency level of AVM trainees upon the completion of each level of the proposed EAM course. As discussed in the background of the study, although there is no English entry requirement imposed for the diploma in ac engineering programme graduates, other applicants must achieve band 3 for MUET and IELTS or level 5.5 for TOEFL. As shown in Table 7.2, the expected level of proficiency that AVM trainees should demonstrate upon the completion of EAM Level 3 was the 'Extended' Level 5, although the 'Expert' Level 6 was more recommended. These conditions were in line with CEFR standard C1.

7.3 Recommendations to be Considered for the Proposed EAM Curriculum

Overall, the study determined the communication needs of AVM trainees and demonstrated the relevance of replacing the current GE curriculum with an ESP-based curriculum. In proposing the EAM curriculum, some recommendations from the respondents of the study were taken into consideration. These recommendations were vital as they were proposed based on the respondents' concern and interest in the proposed curriculum. The recommendations were discussed based on the following themes.

7.3.1 The Use of Authentic Materials as Course Materials

In the textbook evaluation phase, the respondents unanimously agreed that the current textbooks were not suitable for AVM trainees. Basturkmen (2010) emphasised that no readily available textbook would be ideal for learners with specific language needs. Furthermore, EL or ESP teachers must always be unconstrained and creative to develop materials that could be used for teaching or for activities instead of relying on textbooks. It was recommended that the teachers developed customised materials to ensure that the language communication training was aligned with the programme objectives and workplace requirements.

Alhasani (2017) stated that if textbooks are used, the language teacher should make an effort to update and adjust the course books according to the most contemporary aims and objective implemented in the teaching programme. Although the use of the current textbook adopted in the existing courses may not seem entirely obsolete for teaching the AVM trainees, the content and topics covered in the selected textbook must be related to aviation management and specific to address the trainees' English communication needs. Following that, the respondents agreed that the sample teaching materials were good guides for material development. The training materials that would be developed for the EAM course should involve interactive spoken and written lessons, including activities

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to improve the AVM trainees' ability to use English when a discussion was made about aviation management-related matters. Following are the types of lessons and activities recommended:

a. Face-to-face conversations and negotiations

b. Professional presenting techniques in English

c. Interaction via social media sites (e.g., WhatsApp, Instagram, Facebook, LinkedIn, and others)

d. Participation in business meetings

e. Listening to press conference speech

f. Reading of financial reports and legal documents

g. Attendance to conference calls

h. Roleplay

These interactive activities, if timely and appropriately incorporated into the proposed EAM course, could maximise the target students' exposure and practise the desired speaking, listening, reading, and writing skills. This feature aligns with the key feature of ESP, task-based teaching.

7.3.2 Task-Based Topics Inclusion

Besides revising the teaching materials, the topics selected to be incorporated in the proposed EAM course lessons and activities should be related to aviation management. The aim of selecting ESP for curriculum design is to allow trainees to feel motivated for learning English while undergoing the aviation management programme. To illustrate, the trainees assumed that the lesson was a repetition of what they had learned during their secondary school. Based on the list of courses suggested by the AVM lecturers (Table 5.7), the ESP teacher should discuss with the SME in the decision regarding the sub-topics that could be incorporated into the proposed EAM curriculum. This approach

would ensure that the tailored instructions and topics included in the proposed EAM curriculum are of interest among the AVM trainees.

The random selection of any topics or authentic texts from the specialist subject area to be incorporated in the curriculum may not seem appropriate. To explain this condition, the content of these texts, language functions, or terminologies used may not be appropriate to the linguistic levels of the trainees (Basturkmen, 2019). The simplification of texts extracted from manuals, annexes, or technical documents is not possible as the texts will no longer be authentic. Thus, the ESP lecturers should collaborate with the SME to determine the suitability of the authentic material and investigate the appropriateness of adopting the material based on the trainees' levels.

7.3.3 Training for Language Teachers

The conventional teaching method is highly dependent on textbooks as the important sources for information. However, this idea needs to be re-examined. The ESP language teachers play an important role in shaping trainees' attitude and developing their abilities and skills when using English to communicate in context-specific situations (McGrath, 2013). This notion involves the understanding of how to design lessons and assessment while incorporating discourse and tasks-based activities. In this case, the EL teachers should first undergo training to build an understanding of ESP and the development of ESP-based materials. Furthermore, Starfield (2016) highlighted the areas in ESP that EL teachers might not be aware of, leading to the importance of determining the individuals to conduct the ESP course and the knowledge needed by EL teachers to be ESP teachers. To illustrate this point, in contrast to GE, ESP is specialised instruction in ELT.

In one of the case studies conducted by Basturkmen, he reported that a medical course lecturer designed a course to train medical students about the interaction between a doctor and a patient. The course focused on teaching the students about the medical aspects rather than teaching about the ways of interacting with ease while using medical

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terminologies or how to apply language functions to manage interactions. This condition encouraged language teachers to teach the ESP course as they might be unaware of the findings from NA and PSA and were required to master the subject matter to conduct the course. Hence, language teachers should undergo specific training before teaching the ESP course.

In this study, the language teachers had to be imparted with specific knowledge on aviation management and the factors leading to the trainees' need to communicate professionally. Although learning from the SME might appear a simple process, the SME must ensure that the ESP or EL teachers learn about the forms of language used in the field rather than the entire subject. Besides, the EAM language teachers should take into account the potential problems that trainees could encounter in their learning process and consider the alternatives in the pedagogical approach.

Besides exposure to training, the respondents also recommended that language teachers should engage trainees to improve their language skills with technology. Given the rapid growth of the aviation industry, technology use is essential to keep trainees abreast with the latest information, particularly on the revolution in aviation, including the innovation of software and applications used in the air transport industry. Many different technologies could be used in EAM courses, such as mobile technology applications and online tools including YouTube, Skype, or Facebook (DoneschJezo & Misztal, 2012; Kern, 2013). Provided that communication in the aviation industry progresses rapidly and the communication is present in the local and international contexts, the AVM trainees should implement technology in their communication practice. The EL teachers may assert that they often use technology in teaching, however, they may not have the opportunity or full access to the use of technology, such as the listening lab for teaching and listening.

Language teachers should be trained on the use of the latest technologies, software, or online programmes that could be used for teaching trainees. As a result, trainees would be able to communicate professionally and use English when communicating on AVM-related matters. For instance, some trainees could be reluctant or anxious about communicating in English due to anxiety or language problems. Therefore, these students could practise improving their communication skills by communicating via Skype with language teachers.

In addition, the teachers should be trained to construct and validate reading and listening tasks and tests in the EAM courses. Following the stakeholder's suggestion for the adoption of authentic materials and aviation context audio for teaching, the EAM teachers should be trained on how to adapt and customise the material according to the learning outcomes and learners' preference. Notably, a properly constructed teaching material allows teachers to assess the trainees' literacy. The training should guide teachers to validate the reading and listening independently as an individual or a team, and offer tips to construct valid multiple-choice questions and takeaway materials to guide teachers in their assessment of the students' reading skills in the classroom (Kvasova, 2015).

7.3.4   Revisiting the EAM Curriculum and Assessments

The proposed EAM curriculum and oral and written assessment descriptors could be the standards for students' employability and marketability in the workplace. Besides, the written and oral assessment descriptor could also be used by the trainees to gauge their language ability for necessary improvements in the future. However, the assessment descriptors and the EAM course curriculum should be re-evaluated at least once every three and a half years or four years to ensure that it meets the industries stakeholders' demand and the trainees' communicative needs. This re-evaluation took place as the AVM trainees were expected to have completed their studies and graduated from the

programme. Following that, they would begin their work in aviation organisations or other types of organisation. At this point, it is appropriate to investigate their feedback on how the EAM curriculum has helped them and the areas that need improvement. Besides, the views of the hiring personnel, employers, and seniors about the curriculum and test descriptors should be re-evaluated to ensure that they meet the current requirement.

While the study was being conducted, the aviation industry in Malaysia was severely affected by the global pandemic crisis. The after-effects of the pandemic were expected to contribute to a new outcome to the air transport industry and would require AVM personnel with better managerial skills. Future aviation organisation employers or hiring personnel may set higher expectations of graduates or fresh recruits' communicative abilities to enable better management of the departments or organisations operations should any crisis occur again. In addition, there might be more local and foreign aviation organisations, which would be established in Malaysia and open more opportunities for AVM graduates. Therefore, re-evaluation of the AVM trainees' English proficiency and communication needs is important to ensure a constant update to the future demand and refrain from including activities or materials that are no longer relevant.

7.4 Recommendations for Future Research

The findings and summary of this study suggested several opportunities for research that could be initiated in the future. The details on the suggestion for future research will be discussed in the following sub-sections.

7.4.1 Research on Improving AVM Trainees Motivation

This study incorporated a new dimension to understand the role of ESP in AE and aviation-related studies. The research on AE and English for aviation personnel is highly limited in Malaysia, indicating the importance of conducting more studies. This study

highlighted the importance of conducting NA, specifically TSA and PSA to explore the minimal proficiency and communication ability expected by Malaysian-owned and foreign-owned companies. Thus, the conclusions drawn from this study could be investigated further especially when there is a need to study the communication needs of trainees from emerging professions in the aviation field, such as ESP in English for Aviation Medicine or Aerospace Medicine.

The findings from the study recommended the significance of research learner's motivation and attitude towards English. As previously mentioned, the AVM trainees of the programme comprised local and international trainees who were L2 speakers of English. According to the SMEs, trainees had limited interest in the use of English in other AVM classrooms. The ESP theory suggests that teaching English by focusing on the communication needs among trainees will motivate trainees to develop more interests in other AVM courses. In this case, there is a need to determine whether the implementation of EAM courses would create an improvement in trainees' motivation and attitude towards using English while communicating and understanding other AVM courses.

7.4.2   Research on Teaching

As previously stated, this study employed an exploratory sequential approach. Both applications of the qualitative and quantitative instrument were employed to gather data from the target respondents. The data collection process was conducted following several restrictions, which made it impossible for observation to be performed. Besides, in contrast to the ticketing agent or check-in counter staff, the AVM personnel work in the airline office. Permission should be obtained to gain entry into the airline premises. Given that the aviation industry is highly regulated, the activities performed by AVM personnel,

such as discussion or meeting, should not be disclosed to any outsiders. Nevertheless, observational research is recommended for future research.

As the study only involved investigating the linguistic system, future research could focus on exploring the four other semiotic systems: visual, audio, gestural, and spatial. The study should involve the AVM trainees to ensure that the findings are useful in the course delivery and materials development phase.

The coding of observation notes and field notes could be used to further analyse the language functions and perform a discourse analysis to study the AVM communication in the social context and determine the use of language in real-life situations. This action is an initiative that the language teachers or course designers need to consider when recreating the role play or learning situations to improve trainees' English communication skills.

7.4.3 Research on Trainees' Wants

The study investigated and elaborated the findings on the needs for developing AVM trainees' English language skills and compensating for what is lacking in the current GE course offered to the trainees. Nevertheless, course designers or language teachers still need to explore what trainees 'want' in the EAM courses. In ESP, it is vital to investigate the needs, lacks, and wants of a proposed curriculum. Given that the needs and lacks were determined, the next stage was to investigate what was expected by the trainees in terms of the EAM course and the delivery of the course content. Although trainees received no exposure to the AVM communication needs, they could express ideas to the EAM teachers about their preference on course contact hours, materials design, and online learning sites. Trainees' wants should be investigated after the implementation of the EAM course, while the input from it should be used to improvise the pedagogy, assessment, and activities designed in line with the trainees' interest.

7.4.4   Research on Testing

The study presented stakeholders' views on the minimum criteria expected of the graduates' oral and written communication ability. The findings were triangulated to develop a rubric that would be used as a benchmark to train and assess trainees' writing ability. Following that, AVM personnel's opinion on the suitability of the ICAO holistic descriptor was investigated to assess trainees' speaking and writing skills. Given that the reading skill was crucial for AVM trainees, it was recommended that future research observes the assessment criteria that trainees are expected to meet before taking part in the AVM industry.

As explained in Chapter Six, the proposed ESP curriculum would assess trainees' critical reading and listening skills based on Bloom's taxonomy. Listening skills were assessed during the speaking test to examine the trainees' ability to listen, decode, interpret, and provide feedback. However, further investigation on the listening criteria was important to ensure that it fulfilled the trainees' needs. Besides, future research on the reading aspects, such as fluency, vocabulary skills, comprehension, and motivation, will enable course designers and language teachers to further improvise AVM trainees' reading skills.

7.5   Conclusion

In conclusion, the study has successfully achieved its aim to investigate the English proficiency and communication needs of AVM trainees and to determine the extent to which the current AVM English curriculum is aligned with workplace communication needs. The findings indicated that the type of knowledge required for effective professional communication by AVM personnel was not completely in line with the knowledge taught at the university. Hence, the study recommended the introduction of a new category of AE, which is English for Aviation Management (EAVM). This category

would be a new class of AE in ESP, where the curriculum and assessment design will comprise the subjects of aviation, business, and legal English. Besides, it could also be a reference for future research on designing the ESP courses for new emerging programmes, such as Aviation Medicine, Medical Engineering Technology, and Law and Neuroscience (L&N) programmes.

The study has also proven that it is essential for course designers and language teachers to continuously seek stakeholders' opinion of a curriculum and investigate the appropriateness of the teaching materials and assessments. To illustrate this point, English proficiency courses in higher learning institutions often seem less important to programme developers or language teachers. Notably, the investigation on the stakeholders' or employer's opinion and complaints on poor English communication skills would be possible only when the feedback on graduates' knowledge, skills, and ability (KSA) is presented. Language teachers must be updated about the trainees' English language needs to ensure that the workplace communication requirement is addressed in the courses of English for Specific Purposes at the tertiary level. By ensuring that the trainees have mastered the KSA in their field of specialisation and the ability to demonstrate the communication proficiency required for the future workplace requirement, the training institutions could assist in increasing the rate of employment among local graduates and the demand for local talents.

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