LSP International Journal, Vol. 9, Issue 1, 2022, 137–148 © Universiti Teknologi Malaysia E-ISSN 2601–002X DOI: https://doi.org/10.11113/lspi.v9.18395



# Reading Needs and Perception of Using Authentic Materials in Teaching Aviation Management Trainees

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Submitted: 5/3/2022. Revised edition: 4/6/2022. Accepted: 8/6/2022. Published online: 15/6/2022

#### **ABSTRACT**

Reading skill has been given less importance in many higher learning institutions. Most English language teachers assume that the learners are adults, and they can comprehend when reading. Although these learners may not face problems recognising words and their pronunciation, teaching reading skills is vital, especially to learners in discipline-specific programmes who may have difficulties understanding materials of different genres and contexts. The purpose of this study is to assess the reading needs of aviation management personnel in order to evaluate the need to teach reading to aviation management trainees before joining the aviation industry. The study employed a mixed-method approach; interviews and a survey questionnaire which gathered participants' opinions. The participants involved are aviation management personnel working in local and foreign aviation companies. Findings suggest that as the trainees need to read specific workplace documents, they might face difficulties if not exposed early to the reading materials. This paper highlights the challenges participants faced when reading work-related documents and the factors affecting participants' reading comprehension. It emphasises the importance of teaching reading using authentic materials to aviation management trainees in order to prepare them for their future work requirements and to ensure that the trainees are exposed to aviation management related documents.

Keywords: Reading, aviation management, authentic materials

#### 1.0 INTRODUCTION

Reading is a vital skill in language learning. For some language teachers, reading is about comprehension, while for others, it is an opportunity to teach pronunciation and learn new words. Reading always has a purpose, and humans subconsciously perform this skill in their everyday lives. Yet, it is a skill taken very much for granted and generally assumed to be something everyone can do. In most of the courses offered in higher learning institutions, less emphasis is on improving learners' reading skills and abilities. Instead, the focus is often placed on improving trainees' productive skills - speaking and writing skills.

Especially in teaching English to aviation trainees, most English language teachers (ELT) emphasise speaking and writing. There is little discussion in the literature on developing aviation trainees' receptive skills. The International Civil Aviation Organization (ICAO) English Language Proficiency (ELP) test

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was devised for pilots and Air Traffic Controllers and the test includes a listening assessment. As for aircraft maintenance, the aircraft maintenance engineers and technicians frequently write technical reports when performing their tasks (Singh, 2021; Lin, Wang, & Zhang, 2014). There are studies on developing writing skills for aviation maintenance trainees. However, the focus on teaching reading and improving learners' reading skills is less emphasised.

The aviation industry is highly regulated, and therefore there are many aviation documents documented and circulated to the aviation community. Consequently, it is undeniable that reading skill is very much performed by aviation personnel. This paper investigates stakeholders' views on the importance of teaching reading skills to aviation management trainees, exploring the challenges in reading aviation documents, and determining the appropriateness of using authentic reading materials for teaching reading to aviation management trainees.

#### 2.0 AVIATION MANAGEMENT

Aviation Management (AVM) is a term to refer to the profession that is in charge of managing the business and operations of the aviation industry. The AVM personnel are responsible for ensuring that the organisation or company copes well with the demand for air transport service and ensures that the service provided complies with the international and local regulatory bodies' regulations. In addition, the AVM personnel need to maximise the use of available resources to ensure that the organisation gains profit, ensuring that safety requirements are adhered to and minimising operational costs. The AVM personnel are considered the backbone of the aviation industry as they hold a significant role in establishing the aviation companies and their talents as well as sustaining the organisation's growth.

Previous generations of AVM personnel were hired based on experience. However, there is a shift in the industry today where education and experience are valued. (Marion et al., 2014). Due to the continuous growth and demand for air transportation service locally and globally, AVM programmes have been offered as an education programme. The general aim of most AVM programmes is to efficiently develop the right talents to manage the aviation business and operations. In an investigation conducted by Kutz & Kutz (2000) on developing future aviation leaders, communication skills were highlighted. According to the stakeholders involved in the study, the most crucial specific skills or traits that should be instilled among AVM trainees are to improve their communication skills, including grammar, spelling, punctuation, and speaking. This language notion is equally essential as the reading subskills because AVM personnel are often required to communicate with stakeholders such as regulatory officers, International Air Transport Association (IATA) representatives, manufacturers, service providers, vendors, contractors, and other personnel. The AVM personnel are often required to read directives, information and updates communicated by the stakeholders, and poor reading skills can lead to misinterpretation. As far as reading skills are concerned, they can be seen as cognitive abilities, part of the generalized reading process, which a person is able to deploy when interacting with written texts (Urquhart & Weir, 1998; Manoli & Papadopoulou, 2012). Reading aviation documents requires the personnel to interpret the written document that may comprise specific aviation grammar, jargon, technical terminologies (Arnó-Macià et al., 2020). Limited practice and exposure may result in uncertainty or the personnel being unaware of the importance of the information.

Previous studies on aviation personnel EL needs and course development have less emphasised the importance of reading skills. The literature review also showed that studies on the need to teach reading skills and selecting the appropriate reading materials for AVM trainees are also limited. These findings could be due to the misconception of the unimportance of reading comprehension in preparing trainees for their future workplace. Although the skill may seem easy, poor reading skills and inadequate practice on reading may result in the following challenges:

- 1. Unable to understand the vocabulary, terminologies and jargons used in the text.
- 2. Unable to comprehend the meaning of the sentences based on the contexts.
- 3. Unable to relate the existing knowledge to the content of the reading material.

Reading challenges listed above are often encountered by individuals who have less practice and exposure to improving their reading comprehension. Previous studies have also suggested that reading in a foreign language assumes a more crucial role, especially in general and ESP reading (Dwiastuty 2016; Shabani & Ghasemi 2014; Richards and Rodgers 2001). English is the lingua franca in aviation and no doubt that the AVM personnel worldwide must be able to apply their reading skills effectively, even if it is their second or third language.

Why is teaching reading to AVM trainees essential? Wolf, Muijselaar, Boonstra, & de Bree (2019) stressed that reading comprehension is a process of measuring the reader's word decoding skills, word reading fluency, and accuracy and linguistic comprehension general comprehension of language-related information. The general purpose of reading is to understand the literal meaning of texts, interpret and make inferences based on the vocabulary and content, and analyse and evaluate the texts' underlying meaning. However, trainees cannot understand the text with no or lack of exposure to aviation reading materials. What is more, they will not succeed in interpreting and analysing the underlying content of the text they are reading. Therefore, trainees need to be given reading practice and need to be exposed to reading industry-related documents to familiarise themselves and to be able to comprehend the text better. However, selecting the appropriate materials plays an essential factor too in ensuring the reading outcomes are achieved. It is vital to investigate if reading skills are required when AVM personnel perform their job scope and to determine the suitable material that could be used for teaching the AVM trainees.

## 2.1 Reading for Aviation Management Trainees

English has been the dominant language of the aviation discipline ever since it started. The importance of English proficiency amongst aviation personnel has emphasised the establishment of the English proficiency regulation for aviation personnel in the year 2008. The requirement was based on studies conducted by language experts that suggested the need for pilots and ATCs to undergo the English Language Proficiency (ELP) test focused on assessing their speaking and listening skills. The ELP test has its validity period, and therefore, this will ensure that the pilots and ATCs maintain the desired level of English proficiency. The proficiency requirement resulted in establishing the ELP testing centres worldwide to support the requirement set by ICAO.

The International Civil Aviation Organization (ICAO) in the year 2008 specified the requirement for Pilots and ATCs to be tested on their speaking and listening abilities. Implementing the speaking and listening requirement was enforced due to the increase in fatal accidents involving pilots and ATCs. Also, the requirement was relevant to the target group as pilots and ATCs often use scripted language and ATC English for communication purposes (Breul, 2013). Over the last few years, the ELP requirement was

being adopted for training and testing other aviation personnel. However, most literature or studies reported only testing methods and strategies for improving the aviation personnel's speaking and listening skills.

Reading is also a skill required in the daily lives of aviation personnel. Reading is vital because aviation is a highly regulated industry, and there is an abundance of aviation documents that must be read and comprehended by aviation personnel. Some of the types of documents are:

- 1. Manuals
- 2. Annexes
- 3. Bulletin
- 4. Reports

The above-listed documents are examples of technical documents used by aviation personnel. There are many variants of manuals, annexes, bulletin, and reports, and the user may depend on the different purposes it serves in the aviation industry. For instance, the pilots, ATCs, Aircraft Engineers, cabin crew, and AVM personnel have differing goals for referring to these documents. Generally, these documents serve as a guide for the aviation personnel to refer to when performing their tasks. Manuals are usually obtained from the manufacturers or service providers where else annexes, bulletin, and reports are issued by the local regulatory body; ICAO, International Air Transportation Association (IATA), the examination board EASA and FAA, ATC, airlines, and airport management. These documents and references are primarily written in English, and aviation operations and related businesses are strictly governed based on these documents.

Besides technical documents, AVM personnel must also respond to business communication documents such as email, reports, proposals, business letters, minutes, and memos (Spence & Liu 2013; Evans 2010; Kaneko, Rozycki, and Orr 2009). While managing the operations requires the AVM personnel to read technical documents, the AVM personnel must additionally read business documents in handling the business section. Like other sectors, in managing the aviation industry, AVM personnel use business documents to communicate internally, inter-department, domestically, and internationally, transact business, and monitor and analyse its productivity. Business documents range from brief email messages to complex legal agreements such as the Standard Ground Handling Agreement (SGHA). Since documents provide proof of an organisation's dealings and may be referred to for years to come, the AVM personnel must carefully read these documents to avoid misinterpretation or losses to the organisation.

Ultimately, aviation documents are context-specific documents. They contain jargons and terminologies, technical language, technical details, such as the serial or issue numbers, airline and International Air Transportation Association (IATA) codes, and aviation abbreviations. With less or no exposure to aviation documents, AVM trainees may face difficulties in comprehending them. Therefore, trainees must be familiar with these documents while enrolled in the AVM programme as they will be required to use these documents during their industrial training and beyond. Adopting industry-related materials or authentic materials is also necessary for teaching reading to AVM trainees as it will enable trainees to comprehend better and analyse these documents.

All courses in the AVM training programme (such as airline management, airport management, logistics management, air law, human resource management) are also conducted in English. Hence teaching AVM trainees to read the aviation documents cannot be done in isolation. Thus, AVM trainees need specific training to enhance their general and aviation academic reading skills.

# 2.2 Adaptation of Authentic Materials Reading for Specific Purposes

Aviation English (AE) is a branch of English for Specific Purposes (ESP). It covers a range of contexts in which English is taught, including pilots, ATCs, engineers, cabin crew, ground staff, and flight training. Although there are several Aviation English (AE) courses developed to date, the content of these AE courses does not cover reading skills. In addition, studies on AVM personnel's English language needs are minimal (Mott *et al.*, 2019; Solvoll & Hanssen, 2018; Earnhardt *et al.*, 2014). However, the literature discussed above has emphasised that AVM personnel need to read technical and business documents to perform their jobs, and therefore the assertion must be investigated.

Nevertheless, in ESP, teaching both productive and receptive skills is necessary to enable learners to master the English proficiency required for the specific aviation profession and their future workplace (Lee, 2015).

Besides, language teachers should also consider reading activities and materials that should be incorporated into the course. Similarly, while ensuring trainees get good practice reading English materials such as aviation news, historical articles, or extracts from aviation magazines, EL trainers should also expose trainees to reading authentic materials.

Studies have proven that vocabulary is a factor that affects reading comprehension (Cromley & Azevedo, 2007; Swart *et al.*, 2017). Having a good mastery of vocabulary is essential to enable readers interpret and comprehend the reading materials better. Reading comprehension is understanding what one is reading where else a student's level of reading comprehension is related to the vocabulary that the student knows. Though it is challenging to master all vocabularies, learners cannot interpret because with their poor vocabulary skills, they cannot interpret the text in contexts. Their comprehension might depend more on basic vocabulary than those with good comprehension abilities, who already have a more extensive vocabulary (Van den Bosch, Segers, & Verhoeven, 2018).

Apart from that, learners face reading comprehension problems because the reading practice is not related to the learners' purpose of using the language. Hence the reading practice must relate to the learners' course or profession. Learners should be exposed to reading authentic materials which they will encounter in their jobs, to improve their comprehension in the ESP classroom.

Reading materials can take any form, such as reading news, pictorial information, and manuals. It is unnecessary for learners to only practice reading long texts or articles to improve their grasp of the language. However, reading materials selected must be closely related to trainees' target needs because the very goal of teaching reading skill is to expose trainees' to authentic language the way it is used in academic contexts (Khoshhal, 2018). The ESP teacher or ELT must consult the subject matter expert (SME) when selecting the materials to ensure that the reading material is appropriate and current in the field. The notion of ESP is that English is not taught as a subject separated from the learners' real world. Instead, it is integrated into a subject matter area critical to the learners (Rahman, 2015). The term "materials adaptation" can be characterised as making changes to materials to improve them or to make them more suitable for a particular type of learner (Bielousova, 2017). Especially for ESP learners to have good reading skills, authentic materials used for their reading practice will expose learners to the vocabularies, language structure, and language notions better. It may vary according to the sub-field of specialisation. However, before adopting the authentic materials, the teachers must first confirm the necessity of using them for teaching.

## 2.3 Needs Analysis

Needs Analysis (NA) is commonly used to determine the skills and materials required to help the target participants improve in the skill. In ESP, NA's salient features enable the researcher to determine participants' needs in any context. The TSA (Target Situation Analysis), PSA (Present Situation Analysis), LSA (Learning Situation Analysis), MA (Means Analysis) and Language Audit gives the researcher an idea of the course design. The initial stage of conducting the NA involves conducting the TSA and PSA to determine the 'what, why, which, where and when' of learners wanting to improve the language skills and then after the analysis continues to define the learners' preference and other aspects that have a significant impact on the learning.

In ESP teaching, the content is altered according to the needs of the learner and the requirements of their profession. Unlike General English (GE) courses, in ESP, trainees' English language needs are investigated and based on the needs analysis' (NA) findings, before the course objectives, assessments, content, and materials are developed. In the aviation field, there are several variants of AE courses since the language proficiency needs and the instructional methodology is varied; some require Communicative Language Teaching (CLT), Task-Based Language Teaching (TBLT), and Content-Based Language Teaching (CBLT). NA will enable the ELT to determine the suitable methodology for the trainees.

In preparing trainees to meet their future employers' communication requirements, it is necessary to verify the assertion if reading skills are expected of AVM trainees and improve their reading skills. For example, in a study done to determine the reading topics that the aircraft maintenance students should master, the findings from the study list these documents; technical manual, log entries, instructions, reports, statistic data, formal letters, email, journals, announcement, memos, and reading news (Embryany & Ratmanida,2020). The findings obtained are based on an analysis of the participants' needs. Hence only through NA can the teachers determine which instructional methodology is suitable for them.

#### 3.0 METHODOLOGY

This study uses the triangulation method to gain a clear perspective on the opinions of the AVM personnel regarding the importance of teaching AVM trainees reading skills. The research seeks to investigate the types of documents that could be considered in the reading practice and determine the appropriateness of using authentic materials to enhance trainees' reading skills. The study employed an exploratory sequential design, starting with an interview and followed by survey questions to achieve the objectives mentioned above. The data collection was a complicated process as aviation is a highly regulated industry, and therefore the AVM personnel are very conscious about sharing any information. The participants involved comprises AVM personnel working for local and foreign companies at the Kuala Lumpur International Airport (KLIA 1 and KLIA 2). Participants sought work in companies with a close link with the institution and the former students who have graduated from the institution. The participants were approached via email accompanied by a consent letter from the institution to participate in the study voluntarily. Participants in this study are AVM personnel working at the Kuala Lumpur International Airport (KLIA 1 and KLIA 2) for local and foreign companies. A total of forty participants who offered to participate (Table 1) were also interviewed.

Table 1 Participants' Demographics

Number of participants	Survey Question: 90 participants	Interview: 40 participants		
Aviation Entities involved in	Airlines (respondents from six different airlines)			
the study:	Cargo and Logistics,			
	Airport Management			
	Catering			
	Air Traffic Management			

As shown in Table 1, the participants involved in this study work in the airlines, cargo and logistics, airport, catering, and ATC management departments. The participants selected had to fulfil specific criteria to be part of the study. They should have at least two years of experience working as a AVM personnel and should at least be holding a junior executive position. This requirement was to ensure that the right participants participated in the study. The results and findings from the data collection process are discussed below.

#### 4.0 RESULTS AND DISCUSSION

The present study aimed to determine if AVM personnel face difficulties while reading for work purposes. Besides that, the study explores the appropriateness of adapting authentic materials for teaching reading to AVM trainees. Reading is crucial for AVM personnel to perform their daily tasks and to prove this assumption, three questions were addressed.

- Question 1: What is the importance of reading skills to AVM trainees and the reading materials that are frequently used by the AVM personnel?
- *Question 2:* What are the challenges AVM personnel face when reading aviation documents?
- Question 3: What is the AVM personnel's opinion on the use of authentic aviation materials for teaching reading?

The results and analysis of the findings are as discussed below.

## 4.1 Views on the Importance of Reading Skill for AVM Trainees

In order to elicit relevant data from the respondents, an interview was administered. The semi-structured interview with the participants began with questions about their job scope and the extent of their communication. The majority of the interview respondents stated that their communication involves internal, external, domestic, and international. These findings suggest that they have to communicate with people working within the organisation, outside of their organisation, with the local community and clients as well as customers from other countries. The interview proceeded by asking participants if they require reading skills to enable them to perform their job scope and example of situations and materials they frequently read. Majority of the respondents replied that reading skill are essential to enable them to perform their tasks and they provided examples of documents frequently used. Some of the responses given are:

"yes..**need to read and comprehend technical reports**. For example, flight AK870 has experienced a bird strike on runway 33 abeam intersection y6." – MAB 1
"Need to **comprehend emails** before replying" – MA4

"Yes. To understand the intention of other parties especially when **dealing with contracts**." – AA4 "**Read daily updates** by authorities that need to be included in the training" – TD 1

"Yes. Need to read documents regarding safety regulation and requirement" – AA2

"Need to read and prepare documents comprising Contract terms and contract values." – PA1

The above responses show that reading is performed by AVM personnel for various work purposes such as comprehending technical reports, emails, daily updates, dealing with contracts, understanding safety-related and agreement documents. From the participants' feedback, it is clear that there is a need for the AVM personnel to apply their reading skills in understanding what they have read before planning their following action. Besides that, the feedback received from the semi-structured interview on the importance of reading skills has also enabled the researcher to shortlist the types of documents that the AVM personnel have to read for work purposes.

- a. Annexes
- b. Business reports
- c. Emails
- d. Bulletins
- e. Aviation Manuals
- f. Legal documents/contracts
- g. Letters

The list above comprises documents commonly used by the AVM personnel when performing their tasks. As discussed above, the respondents' communication extent involves all levels, suggesting that the AVM personnel need to read internally distributed documents. AVM personnel must also read documents from external parties or stakeholders, documents produced for the local community by the authority, and international context. Hence, it is clear that AVM trainees should be given the training to improve their reading skills since it is required for their job purposes.

# 4.2 Difficulty in Reading Aviation Documents

Following the findings obtained from the interview is to determine the challenges the AVM personnel faced when reading aviation documents. The list of shortlisted documents from the interview was included in the survey form to select participants' opinions about the difficulty in reading these documents. The result of the survey is shown in the table below.

Types of Materials	Very difficult (%)	Difficult (%)	Neither easy nor difficult (%)	Easy (%)
<u> </u>	-		` /	` /
Annexes	3	25	35	35
Business Reports	3	14	41	42
Emails	0	3	23	74
Bulletins	0	6	23	71
Aviation Manuals	3	35	29	33
Legal documents/ Contracts	5	36	33	26
Letters	0	8	26	66

Table 2 Difficulty in Reading Aviation Documents

The difficulty ratings for the interpretive communication tasks show that more than half (66-74%) of the respondents indicated that "reading emails," "reading bulletins," and "reading letters" are easy to be carried out. Interestingly, but perhaps not surprisingly, the rest of the reading tasks are perceived to be neither easy nor difficult and difficult. The opinion is divided perhaps because there are personnel who have long years of experience in aviation management. Therefore, they do not have difficulty reading annexes, business reports, aviation manuals, legal documents, or contracts. However, with more than 50% of the respondents stating that it is difficult and neither difficult nor easy to read these documents, it is crucial to investigate what are the difficulties in reading these documents.

The next question in the survey seeked to investigate the factors that affect AVM personnel reading skills. The participants' response to the open-ended question was analysed and categorised into several factors. The ranking of each factor was done based on the percentage. The results of the findings are shown in Table 3 below.

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%	

**Table 3** Factors Affecting Reading Comprehension

Table 3 shows the percentage of respondents who listed the top 5 factors that affect respondents reading skills or abilities. Almost half of the respondents (49%) suggested that limited knowledge of aviation, business and legal terms is one of the main factors they face when reading. AVM personnel use these documents as a source of actual data, and the document listed above are heavily contextualised. To understand what they are reading, the personnel must first grasp aviation, business, and legal terminology. Besides a lack of exposure and practice, the AVM personnel also indicated the writing conventions as factors that cause difficulties in reading the aviation documents. Although not significant, the difference in English and level of English proficiency is also an essential factor that must be noted as it can affect AVM

personnel's reading skills and abilities. Some documents use a higher level of English, and therefore AVM personnel may find it difficult or complicated to comprehend these documents. The last factor, which is inadequate knowledge of the subject, can be managed if the AVM personnel have a good vocabulary range. These factors are critical to be acknowledged as it relates to the assumption of why teaching reading skill is essential for AVM trainees, and the basis of teaching reading is to address the factors listed.

## 4.3 Opinion on the Use of Authentic Material for Teaching Reading

The role of the teacher is not to mislead the trainees but to prepare them by giving them the awareness and necessary skills to understand how the language is used. Therefore, by using authentic materials, the learner will not encounter the fabricated language of the classroom but the real world and language how it is used (Berardo,2006). Trainees will learn the jargon and terminologies and the technical language used in the workplace and use the knowledge when communicating verbally or in writing. The final section of the questionnaire sought to determine the participants' opinion on adopting authentic materials to develop teaching materials.

	Least	Neutral	More	Most needed
	needed		needed	
Actual Documents samples from the	6.25%	9.38%	40.63%	43.75%
workplace				
Actual reading documents/materials from	3.13%	15.63%	28.13%	53.13%
the workplace				
List of industry jargons, terminology, and	3.13%	9.38%	15.63%	71.88%
phrases for practice				

Table 4 Participants' Opinion on Using Actual Documents for Teaching Reading

Table 4 above presents the participants' view on using actual document samples, actual reading materials, and a list of aviation industry jargon, terminology, and phrases for practice. Results from the survey show that more than half of the majority of participants indicated that using authentic materials, documents, jargon, and terminology is 'most needed'. This result shows that AVM personnel agree on the importance of teaching AVM trainees reading using authentic materials. A small group of participants (less than 10%) regarded authentic materials as 'least needed'. As discussed in the literature section, trainees' knowledge levels should be gauged when adopting authentic reading materials. Hence, in developing the reading lessons for AVM trainees', the ELT must first consult the SME to select the appropriate document samples, reading material and lists of jargons, terminologies and phrases used at the workplace to be incorporated in the reading course

#### 5.0 CONCLUSION

Reading skills is often assumed as the most effortless skill to acquire; however, it is never the case when performing the skill for acquiring knowledge or for work purposes. In these contexts, learners or readers

must interpret the meaning of the texts before deciding the next course of action. Literature studies on ESP courses developed for several aviation divisions have not stressed reading as a crucial skill. Therefore, the ESP courses that have been developed to date have less emphasis on developing trainees reading skills. The AVM field is still considered a new field of study under aviation. In developing future talents to manage the aviation industry and its related companies, it is necessary to first determine the language needs of the AVM personnel before deciding the necessity of reading skills to the AVM trainees. Analysis of the findings from the study has shown that the reading skill is essential for AVM personnel as there are several types of documents that they frequently use. The AVM personnel must decode, interpret and provide feedback after reading these work-related documents or materials. However, the findings have also proven the problems that AVM personnel faced by highlighting the factors that affect AVM personnel's reading ability. The AVM personnel may or may not have exposure or experience in aviation studies prior to joining the aviation industry. However, most participants agreed with the idea of adopting authentic materials to train AVM trainees. The idea of adopting authentic materials was further supported with the constructive feedback obtained on the samples of reading materials designed to confirm the appropriateness of ESP task-based materials to enhance AVM trainees' reading skills.

English language teachers (ELT) play a crucial role in determining the learners' needs, the type of English required, GE or ESP, and the required skills to meet the workplace requirement. Indeed, the GE courses have been the most popular and conventional teaching method for essential communication. However, the present study has shown that the ESP teaching approach is a more ideal method in preparing trainees to master the reading skills required to work in the aviation management industry and excel in academic contexts. AVM trainees will also understand the importance of reading skills in maintaining good communication since the AVM personnel job scope requires them to frequently read documents such as letters and emails.

The AVM is part of the aviation and air transport industry. As these industries constantly evolve, the job scope and responsibilities of the AVM personnel will be affected and the English language needs of the personnel may change. Hence, the ELT must refer to the NA findings. In conclusion, the NA should be conducted before and throughout the course to avoid the mismatch between the ELT assumptions and the trainees' language needs.

#### ACKNOWLEDGEMENT

The authors would like to thank the Aviation Management Personnel who were the participants of the study.

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