

Content Analysis of an Aviation English Language Textbook Entitled ‘Cleared for Take-off’

Rawan Yazan Ghalayeini *
Prof. Dina AbdelHameed Al-Jamal **
Dr. Majedah Fawzi Abu Al Rub ***

Received 23/11/2021

Accepted 29/1/2022

Abstract:

The present study aimed to analyze an Aviation English language textbook series entitled: Cleared for Take off, English for Pilots (2007), 1 and 2, according to a checklist which was developed based on the English language proficiency rating scale set forth by the International Civil Aviation organization (ICAO). The rating scale included six language components; pronunciation, structure, vocabulary, fluency, comprehension and interaction. The findings revealed that the textbooks correspond with the language proficiency rating scale with emphasis on the interaction, vocabulary, and aural skills.

Keywords: Aviation English, Content analysis, ICAO, Textbook, rating scale.

Jordan\ ghalayer@uni.coventry.ac.uk *

Faculty of Educational Sciences\ Yarmouk University\ Jordan\ deena.j@yu.edu.jo **

Faculty of Educational Sciences\ Yarmouk University\ Jordan\ majedah@yu.edu.jo ***

تحليل محتوى كتاب اللغة الإنجليزية للطيران بعنوان "جاهز للإقلاع"

روان يزن الغلاييني*

أ.د. دينا عبد الحميد الجمل**

د. ماجدة فوزي أبو الرب***

ملخص:

هدفت هذه الدراسة إلى تحليل محتوى كتاب اللغة الإنجليزية لأغراض الطيران بعنوان "جاهز للإقلاع" اللغة الانجليزية للطيارين" (2007) بجزئيه الأول والثاني بحسب قائمة مرجعية تم اعدادها بناء على مقياس لتصنيف الكفاءة اللغوية تم وضعه من قبل المنظمة الدولية للطيران المدني (الايكاو) والتي استخدمت لتحليل الكتاب كميا بهدف معرفة مدى توافق الأنشطة والمهام المذكورة في الكتاب مع المهارات المذكورة في هذه القائمة. تشمل هذه القائمة ست مهارات لغوية محددة للمستويات ألا وهي النطق والبنية اللغوية ومجموعة المفردات والطلاقة اللغوية والفهم والتواصل. كشفت نتائج الدراسة بأن محتوى هذا الكتاب من أنشطة ومهام تتضمن المهارات اللغوية الست المذكورة في مقياس تصنيف الكفاءة اللغوية، مع التركيز على مهارات التواصل، ومجموعة المفردات ومهارات المحادثة والاستماع.

الكلمات المفتاحية: اللغة الإنجليزية لأغراض الطيران، تحليل المحتوى، ايكاو، الكتاب الدراسي، مقياس تصنيف.

*الأردن/ ghalayer@uni.coventry.ac.uk

** كلية العلوم التربوية/ جامعة اليرموك/ الأردن/ deena.j@yu.edu.jo

*** كلية العلوم التربوية/ جامعة اليرموك / الأردن / majedah@yu.edu.jo

Introduction

Learning the English language is no longer an option rather it is a necessity considering the dynamic and constantly changing world. The rise of English as an international language that is used in various domains and diverse contexts requires not only learning this language but also mastering it by acquiring language skills, syntactic structures and lexical items and by developing the jargonistic repertoire needed for one's career. Thus, language learners attend language courses and exert efforts to be competent in languages which they find relevant to their contexts and of high value to their profession or study. Some might learn a certain language to achieve different purposes and accomplish various goals, either to enter the global workforce, or to perform occupational tasks effectively in different domains. These are called English for Specific Purposes (ESP) courses.

Recently, ESP has been addressed broadly in different life aspects. ESP refers to the teaching of a specific genre of English for adult students who are learning the language to use it in certain fields for specific functions such as medicine, tourism, business, education, aviation. etc. Mackay and Mountford (1978: 2) stated that 'ESP is generally used to refer to the teaching of English for a clearly utilitarian purpose'. According to Robinson (1991: 2), students learn the foreign language for work or study purposes, not because they are interested in learning the language or its culture. This means that language learners enroll in such courses so as to develop the skills and abilities needed for their occupation or their study. ESP encompasses an array of specialized sub-fields. Aviation English (AE) is one of the fields and disciplines which fall under the umbrella of ESP.

Effective communication in the aviation field is of paramount importance since unsuccessful comprehension and miscommunication could lead to serious consequences. With the rapid expansion of the global aviation industry, the demand for aviation standardized phraseology increased as this field involves constant interaction between pilots and air traffic controllers from different parts of the world. Accordingly, the International Civil Aviation Organization (ICAO) introduced uniform standardized provisions and rules to regulate language use in the aviation domain. In addition, English was identified as the official language of aviation (ICAO,2001). This reflects their serious quest to ensure aviation safety leading to the development of the aviation English language proficiency requirements.

Aviation English (AE) refers to a specialized subset of English related

to all aspects of aviation, including communication between pilots, traffic controllers, flight attendants, technicians, managers and dispatchers. It is also used for writing announcements, briefings, and reports in the aviation industry. AE includes radiotelephony communication and 'Plain language'. More specifically, radiotelephony communication refers to the language used by pilots and air traffic controllers to communicate efficiently while working. Since many accidents in the aviation field were caused due to poor communication in English, such as the Tenerife tragedy (Federal Aviation Administration, 2004), ICAO recognized the need for developing a standardized, clear and concise language to be used by pilots and traffic controllers, referred to as radiotelephony phraseology. Radiotelephony phraseology consists of specific phrases, structures and lexical items which are approved by ICAO to be used in all aircraft situations (ICAO, 2001). These are standardized and specified as the aircraft situations are highly predictable.

Nevertheless, in the event of unforeseen circumstances or unexpected events, incidents or situations related to either technical issues, medical emergencies, or fuel shortage, aviation personnel can resort to the 'plain language' (Moder, 2013). Plain Language, also referred to as the natural or general language, accounts for 'the spontaneous, creative, and non-coded use of a given natural language' (ICAO, 2010: 66). It refers to the language aviation personnel use when the aviation phraseology is insufficient to conduct comprehensible and intelligible communication.

ICAO requirements, as stated in ICAO Personnel Licensing, Annex 1, refer to the 'ability to speak and understand the language used in radiotelephony communications'. There are six levels of proficiency ranging from the pre-elementary level through the expert level. Pilots and air traffic controllers should achieve a minimum of operational level four. The six dimensions of proficiency outlined by ICAO are pronunciation, structure, vocabulary, fluency, comprehension, and interactions.

Not only non-native speakers of English but also native speakers encounter difficulties in learning the language of aviation. Native speakers should also be taught techniques and strategies which they can utilize when communicating with non-native speakers of the target language, English (Cookson, 2009). Successful aviation communication is a shared responsibility lying upon all interlocutors. Thus, a greater awareness of the nature of AE language programs, including the curricula adopted or adapted, the syllabi planned, instructional materials used, methodologies and

approaches employed, the technologies exploited, and the communication strategies taught would help pre-service pilots become AE proficient communicators and prepare them for future real-life situations.

In addition, since flying an aircraft is a very daunting and stressful profession, the last thing pilots need is to carry on long conversations with others. This highlights the importance of obtaining sufficient proficiency in English and mastering technical vocabulary items and specific terms and phraseology confined to aviation. It is the responsibility of flight academies and language centers to provide reliable accredited well-developed and structured AE language courses, and it is their duty to hire professional qualified AE teachers who are well-acquainted with the language of aviation, and to provide textbooks and supplementary materials which meet students' language needs and are congruent with ICAO language requirements.

Statement of the Problem

Although considerable research has addressed the area of English for specific purposes, however, less attention has been paid to the teaching and learning of Aviation English. Since the aviation industry is highly related to the safety of millions of passengers around the world, researchers, scholars, linguists and policy makers should reconsider this area and devote more time, exert more efforts, and provide resources in order to investigate this topic further considering its importance. In addition, the lack of proficiency in the English language and miscommunication was reported as a contributing factor to some of the fatal accidents which took place in the past in the aviation field (ICAO 2010). Accordingly, the researchers aim to bridge the gap in literature by exploring the extent to which the textbook 'Cleared for Take-off' is congruent with the language proficiency rating scale outlined by ICAO.

Significance of the Study

Since this textbook is used in aviation academies in Jordan, the researchers aimed to analyze this textbook according to ICAO language requirements especially since Jordan is one of the member states of ICAO. To the best of the researchers' knowledge, such studies in the aviation industry or studies which tackled aviation English are scarce in the Jordanian context.

Purpose and Questions of the Study

The purpose of the study is to analyze an Aviation English language textbook series entitled 'Cleared for Take-off', to explore the extent to which

it conforms to ICAO language proficiency requirements. This will be illustrated by answering the following question:

To what extent do the textbooks ‘Cleared for Take-off’ 1 and 2, comply with ICAO language proficiency rating scale?

Methodology

Content Analysis

The researchers used content analysis as a method to analyze the Aviation English textbook in light of the criteria set forth by ICAO. Holsti (1969) referred to content analysis as ‘any technique for making inferences by objectively and systematically identifying special characteristics of messages. Content analysis is a scientific structured research method which enables researchers to analyze both implicit and explicit content, quantitatively by following specific explicitly stated procedures and steps to reach at different conclusions and make valid, reliable, objective inferences and generalizations. While analyzing any given content, the researchers must answer the following questions ‘who says what, to whom, in which channel, why, and with what effect?’ (Lasswell 1984, 216). Accordingly, content analysis is not a goal itself rather it is a research tool used for evaluating the content and making judgments.

According to Krippendorff (2003), this scholarly methodology provides meaningful insights about the content, improves the researcher’s comprehension of a certain phenomenon or boost understanding of a concept and could also inform pedagogical implications that could be beneficial to stakeholders, curricula designers, content writers, authors..etc Content analysis is based on three main assumptions; the first is that it leads to valid inferences by following accurate procedures and by making precise interpretations. The second assumption is that it can change the content under analysis into meaningful figures. The third one is that the analyst’s interpretations of the content should not contradict the writer’s original intentions.

Not only written texts are considered data for analysis, images, charts, works of art, signs, symbols and spoken texts as well are considered data that can be examined (Krippendorff, 2003). Researchers (eg. Creswell and Garret 2008) called for analyzing any given set of data using both quantitative and qualitative methods. It is advised to employ both methods as that will convince the audience, enrich the evidence and strengthen the argument.

Review of Related Literature

Hamid, Hamed, Ali and Ashraf (2015) evaluated an Aviation English language textbook entitled 'Aviation English for ICAO Compliance' by Macmillan publishing using checklists adopted from Cunningsworth's (1995) book, 'Choosing your Course Book'. The researchers conducted an overview and in-depth evaluation and found that the textbook contains activities which aim at improving the speaking and listening skills. In addition, the textbook included activities which integrate aspects such as functions, vocabulary and pronunciation in all units.

Parohinog and Meesri (2015) conducted a needs assessment study to explore students' opinions concerning the language descriptions specified by ICAO in six aspects; pronunciation, vocabulary, grammar, fluency, comprehension and interaction. The sample consisted of 621 students who were selected using convenience sampling from six universities which offer Aviation English language programs. The researchers employed mixed methods research in which they used quantitative and qualitative methods to collect data including questionnaires, interviews and focus groups. The findings showed that most students have difficulties in grammar, vocabulary and interaction. They also reported that trainee pilots state that their aviation English language proficiency needs to be developed before they pursue their career. Finally, they called for developing a blended-learning program so as to develop pre-service pilots' language proficiency.

Kim and Elder (2015) explored the opinions of pilots and air traffic controllers regarding the English Proficiency Test for Aviation (EPTA) developed and administered in Korea to find out whether the test aligns with ICAO English language proficiency requirements. The researchers collected data through distributing four-hundred questionnaires and conducting twenty-two interviews. The findings revealed that there was no consistency between the aviation English language test developed and conducted in Korea and the English language testing policy imposed by ICAO as the respondents stated that the test failed to measure their real communicative competence in radiotelephony communication.

Karimi and Sanavi (2014) conducted a needs analysis in order to identify the learning needs of students enrolled in an aviation training program. Quantitative and qualitative methodologies were used to collect data which included a questionnaire, structured and semi-structured interviews. The findings revealed that the ESP program failed to improve student-pilots' four language skills needed for their profession which

highlighted the importance of modifying the curriculum and syllabus to meet students' learning needs, editing the content of the textbook used in that program and identified the need to conduct more activities which would encourage students to practice their language skills.

Khodabakhshi (2014) conducted a study which aimed at analyzing a series of English textbooks, entitled 'Skyline'. Seventy-five EFL teachers from Iran were asked to evaluate different aspects of this series using a checklist that was developed by Litz (2000). It included forty items which were categorized into seven categories; practical considerations, layout and design, activities, skills, language type, subject and content, and conclusion. The findings showed that Skyline series included features which meet Iranian EFL students' needs, especially Skyline 4, as it aims at developing the students' communicative competence, focuses on both fluency and accuracy, integrates the four language skills and includes topics that attract students' attention. Nevertheless, the analysis also revealed that there are few weak areas which need to be reconsidered and edited, for example; adding a glossary list at the end of the book.

Estival and Molesworth (2009) investigated the effect of pilots' English language proficiency on their communication with other pilots and Air Traffic Controllers (ATC). The data were collected by distributing questionnaires to thirty-six pilots at different flight academies in which they answered questions regarding their native language and level of proficiency in English. They also reported instances of poor communication with other pilots or with air traffic controllers. The results revealed that both native and non-native pilots considered comprehension with other pilots regardless of their qualification or native language as the most difficult task, while communicating with ATCs as the least challenging task.

To the best of the researchers' knowledge, no studies have analyzed this aviation English language textbook, 'Cleared for Take-off' in light of the ICAO language rating scale.

Content under Analysis

The materials to be analyzed are the tasks included in the AE textbook 'Cleared for Take-off' Book 1 and 2, from unit 1 to unit 12.

Criterion of Analysis

The criterion is the inclusion of the six language skills specified by ICAO in the language proficiency rating scale; pronunciation, structure, fluency, vocabulary, comprehension and interaction. Inclusion in the present study means finding out whether the content under analysis contains a

certain phenomenon, concept or skill.

Unit of Analysis

The unit of analysis is each task found in the AE textbook 'Cleared for Take-off' (2007) 1 and 2, from unit 1 to unit 12. The researchers used *Task* to refer to all the tasks and activities spotted in the textbooks, as entitled by the author of the textbooks Liz Mariner, to avoid confusion.

Categories of Analysis

The categories are the six language skills upon which the instrument was developed; Pronunciation, Structure, Vocabulary, Fluency, Comprehension and Interaction.

It should be noted that the integrative language approach is employed in these textbooks; meaning that language skills and aspects are integrated in many tasks since language is learned in integration and not in segregation. Nonetheless, during analysis, tasks were categorized according to the main language skill on which emphasis is placed.

Limitations of the Study

The generalization of the findings of the present study is limited to the textbooks 'Cleared for Take-off' (2007), 1 and 2.

Validity of the instrument

The researchers established the validity of the instrument; a content analysis checklist that is based on ICAO language proficiency rating scale, by consulting a jury of EFL professors, supervisors and teachers and then making amendments based on their comments and suggestions.

Reliability of the materials

Intra-rater reliability was established by reanalyzing the textbooks using the same steps and procedures two weeks after the first analysis. Then, the reliability co-efficient using Holsti's equation (1969, 206) was calculated and found to amount to 0.99. Moreover, inter-rater reliability, which refers to the degree of agreement among raters, was also ascertained by asking another scholar to analyze the same textbooks using the same steps and procedures. Then, the reliability co-efficient between the two analyses was found to be 0.98.

Results and their Discussions

To answer the research question, to what extent are the textbooks entitled 'Cleared for Take-off', 1 and 2, congruent with ICAO language proficiency rating scale? the researchers analyzed the content of these textbooks in light of ICAO language proficiency rating scale. The results are

presented in Tables 1-6 followed by their discussion.

Comprehension

Table 1: Frequency of Comprehension Tasks in ‘Cleared for Take-off’ Textbooks, 1 and 2

Types of Comprehension Tasks (listening)	Frequency	Percentage
Listen and fill in the blanks	12	63.1
Listen and match	1	5.3
Listen, mark or draw on a diagram	3	15.7
Listen and choose	1	5.3
Listen and complete	1	5.3
Listen and read	1	5.3
Total	19	100

Comprehension tasks, in the present study, included tasks which assess students’ listening skills, test their understanding and their abilities to retrieve information. Table 1 presents the frequency of comprehension (listening) tasks found in the textbooks. Instances of comprehension tasks include radio calls between a pilot and an air traffic controller (textbook 1, unit2, p.33), television weather forecast (found in textbook 2, unit 9, p.48), description of an aircraft instrument panel (found in textbook 1, unit 5, p.95). It ought to be remarked that there are other comprehension tasks spotted in the textbooks, however, the focus of these tasks was to improve other skills or components such as vocabulary or pronunciation. Nevertheless, exposing students to authentic or semi-authentic listening texts is advantageous as they prepare students for real life situations.

Developing student pilots’ comprehension is extremely important especially in contexts in which thousands of peoples’ lives are at stake and in which most of the interaction requires high listening and speaking skills. In addition, comprehension tasks provide students with opportunities to listen to different accents or dialects which they may encounter in their future career, allow them to recognize detailed information, enhance their understanding, monitor their grasp of the content listened, and engage them in the learning process (Hardiah, 2019).

Fluency

Table 2: Frequency of Fluency Tasks in ‘Cleared for Take-off’ Textbooks, 1 and 2

Types of Fluency Tasks	Frequency	Percentage
Discussion	19	55.9
Asking and answering questions	4	11.8
Role-play	3	8.8
Respond to situations	5	14.7
Description	3	8.8

Types of Fluency Tasks	Frequency	Percentage
Total	34	100

Fluency is given priority over accuracy in the Communicative Language Teaching (CLT) approach which is adopted by ICAO. Accordingly, fluency (speaking) category was well represented in the textbooks with a frequency of 34 tasks as opposed to other components such as the structure (accuracy) as shown in Table 2. Fluency refers to one's ability to produce stretches of language smoothly, coherently, meaningfully, comprehensibly and accurately. Fluency Tasks encourage target language production when students are actively engaged in communicative tasks. It is also the teacher's role to encourage students to be risk takers; to use the language regardless of their mistakes, as they will inevitably become more competent. This will act as a starting point for the journey of fostering students' communicate competence.

Another point to mention is that fluency tasks could be individual tasks in which the language learner is encouraged to use the target language, to practice using specific vocabulary items, linguistic structures, use transitional markers.etc., for example, oral presentations. This is essential in the classroom as this will help the teacher to assess the student's level of proficiency and will promote learner autonomy. Furthermore, this category comprises as well pair and group work tasks in which all students are given opportunities to produce output in the target language whilst communicating with their peers (Textbook 1, Task 3.9, p.52). This will boost their confidence, improve their comprehension and promote their fluency in the target language.

The textbooks contain plenty of fluency and comprehension tasks. This is congruent with ICAO rating scale and language requirements which entail that emphasis in aviation language programs should be placed on aural skills; speaking and listening, since most interaction occurs through radiotelephony communication.

Vocabulary

Table 3: Frequency of Vocabulary Tasks in 'Cleared for Take-off' Textbooks, 1 and 2

Types of Vocabulary Tasks	Frequency	Percentage
Gap filling	14	23
Synonym	6	9.8
Definition matching	8	13.1
Using charts/pictures/diagrams/tables	5	8.1
Crossword puzzle	2	3.3
Abbreviations	5	8.1
Write the name of...	12	19.6

Types of Vocabulary Tasks	Frequency	Percentage
What word describes.	9	15
Total	61	100

Of the six categories, vocabulary category garners the lion’s share of the tasks found in the textbooks with a frequency of 61 tasks as shown in Table 3. Vocabulary learning is pivotal in aviation. This can be interpreted by the fact that students are required to learn the radiotelephony terminologies and phrases as they will be using them constantly during their flight. Examples of vocabulary tasks include identifying parts of an aircraft (textbook 1, unit 3, p.42), weather forecast vocabulary (textbook 2, unit 10, p.67), crossword puzzles, abbreviations, synonyms...etc. Without learning aviation terms, students would fail in passing the operational level 4 of proficiency which is required as a prerequisite to obtain the flying certificate. In addition to these tasks, it should be noted that there is a glossary of aviation terms, their abbreviations and definitions at the end of each textbook. This is very beneficial to students since fully comprehending and mastering the vocabulary items used in this context prepares them to communicate effectively in the aviation environment and to aviate safely.

Structure

Table 4: Frequency of Structure Tasks in ‘Cleared for Take-off’ Textbooks, 1 and 2

Types of Structure Tasks	Frequency	percentage
Pair work	2	50
Gap filling	2	50
Total	4	100

As Table 4 illustrates, the component which received the least emphasis in the textbooks is the Structure. There were very few tasks which ask students to use a certain grammatical structure (eg. present continuous). This confirms the presumption that although the structure skill (accuracy), similar to fluency, is included in ICAO rating scale, it is somehow overlooked in aviation language teaching. For that reason, incorporating more tasks that address various grammatical structures and teaching them to student pilots whether inductively or deductively is recommended. These tasks aim to help students revise different structures, build on their schemata, and provide opportunities to practice using grammatical aspects and structures that are beneficial to them. This is owed to the fact that students in the aviation context will not only use aviation specific terminologies, but are also expected to use general English in critical or unexpected situations when AE is not sufficient to solve the problem.

Pronunciation

Table 5: Frequency of Pronunciation Tasks in ‘Cleared for Take-off’ Textbooks, 1 and 2

Types of Pronunciation Tasks	Frequency	Percentage
Listen and repeat	4	80
Listen, read and repeat	1	20
Total	5	100

Pronunciation

Similarly, Pronunciation, is another category which was not well represented in the textbooks. As shown in Table 5, there were five tasks which mainly aimed at improving students’ pronunciation (eg. Textbook 1, Task 1.6, p.9, Textbook 2, Task 9.11, p.56). There were other tasks which addressed pronunciation features; such stressed syllables, and phonetic transcription, however, pronunciation was not the main focus of those tasks. It is worth mentioning that comprehension (listening) tasks expose students to different accents which facilitate language acquisition, and influence students’ accents. According to ICAO, there is no one single target accent required, however, an intelligible accent that can be clearly understood is what ICAO call for. Speaking intelligibly and comprehensibly and pronouncing clearly is a must in the aviation field, while mispronouncing aeronautical terms and phrases could lead to catastrophes. Therefore, more pronunciation tasks should be added to the textbooks and explicit pronunciation instruction should be conducted to develop students’ awareness of the distinction of different sounds and phonemes which will progressively promote their speech clarity. This is supported by Couper (2003) who found that targeted instruction of pronunciation leads to improvement in the speech of language learners.

Interaction

Table 6: Frequency of Interaction Tasks in ‘Cleared for Take-off’, 1 and 2

Types of Interaction Tasks	Frequency	Percentage
Group discussion	12	41.4
Pair work	17	58.6
Total	29	100

Regarding the Interaction category, it includes pair and group work activities, whole-class discussions found in the textbooks. This category is moderately represented with a frequency of 29 tasks, as indicated in Table 6. Examples of interaction category included whole-class discussions taking place at the beginning of most units; eg. a whole-class discussion on the information needed for a pilot before taxiing for departure or for arriving at

a specific airport (found in textbook 1, unit 4, p.64), and a discussion on the importance of weather forecasts (found in textbook 2, unit 10 , p.61). There were also pair work tasks such as a discussion on pre-take off checklists (found in textbook 2, unit 8, p. 27).

The interaction skill comprises the other skills mentioned in ICAO rating scale, since successful and effective interaction will not take place unless interlocutors use appropriate grammatical structures, pronounce words clearly, and have sufficient knowledge of aviation vocabulary, in order to ensure fluent speech and good comprehension (ICAO 2010). Interactive tasks encourage students to interact with each other, negotiate meaning, perform certain communicative functions, and discuss their answers and points of view. This aligns with the Interaction language component found in the ICAO rating scale (2010). In addition, interaction in the language classroom fosters language development and leads to automaticity in student pilots' language competence which is the ultimate goal of any language teaching program (Ellis, Tanaka, and Yamazaki, 1994).

The findings revealed that the textbook series 'Cleared for Take-off', 1 and 2, are congruent with ICAO language with respect to fluency, comprehension, vocabulary, and interaction categories. This goes in line with the findings of Hamid et al (2015) study which reported that the AE textbook "Aviation for ICAO Compliance" they analyzed focused on improving the aural skills, and included activities which address vocabulary, structure and pronunciation.

Moreover, the current study revealed that less emphasis is placed on structure. According to Parohinog and Meesri study (2015), the students whom were interviewed believed that they had problems with grammar including sentences structures, verb tenses, use of prepositions and adjectives. This could be due to the fact that some AE textbooks such as the one under focus in the present study 'Cleared for take –off' does not cover grammar sufficiently. The reason for this is that in phraseology, the grammatical structures are reduced. However, pilots are expected to have an adequate language proficiency to be able to communicate successfully in 'plain English' in critical situations where phraseology may not be sufficient.

On the other hand, the findings of the current study regarding structure and pronunciation disagrees with those of Hamid et al (2015), as the AE textbook they examined addressed structure in each unit of the book; which

they referred to as functions. Additionally, the textbook they analyzed tackled pronunciation features such as stress, intonation, diphthongs, ICAO alphabet, which were not spotted in the textbook under study; ‘Cleared for Take-off’.

Despite the fact that comprehension tasks in ‘Cleared for Take-off’ include implicit teaching of pronunciation due to exposing student pilots to a variety of accents, it would have been more beneficial if more pronunciation tasks which explicitly teach students pronunciation and address phonetic features; stress, intonation, rhythm...etc, are incorporated in the textbooks. It is also recommended by the researchers to add more tasks which deal with grammatical structures and sentence patterns to enhance student pilots’ grammatical competence. This could be achieved by adding activities which present grammatical structures through using communicative functions such as; using the present continuous to ask for information.

To conclude, the findings of the present study showed that the AE textbooks, ‘Cleared for Take-off’, 1 and 2, are congruent with ICAO language proficiency concerning the aural skills, vocabulary and interaction. While structure and explicit instruction of pronunciation features were not well represented in the textbooks.

Recommendations

This research could be useful to AE textbook writers and curricula designers as it raises their awareness of the content of AE textbooks and it investigates the extent to which the textbook is congruent with the six language skills that are mentioned in the rating scale outlined by ICAO, according to which pilots are assessed. Based on the findings of this study, it is recommended for textbook writers to incorporate tasks which tackle pronunciation features explicitly and more tasks which address grammatical structures. This result aligns with the importance of developing student pilots’ language proficiency as they will not only use the aeronautical limited phrases but will also inevitably use plain English during critical situations.

It is also suggested that AE teachers exploit supplementary instructional materials that address language areas which might not be focused on in specific textbooks. Especially in the aviation English language classroom, teachers should strive to integrate the six language components to prepare future pilots and equip them with the necessary skills needed for them to become successful aviators. Consequently, teachers should not treat

textbooks as the only source of knowledge, rather, they can select a variety of other instructional materials and tailor them to suit their students' needs and purposes of the language course.

Finally, more studies should be conducted on analyzing other AE textbooks in light of the ICAO rating scale. In addition, further research in this discipline considering other areas such as AE language instruction, the implementation of ICAO rating scale, and raters' and pilots' perspectives regarding the ICAO rating scale, is highly recommended.

References:

- Cookson, S. (2009). Zagreb and Tenerife: Airline accidents involving linguistic factors. *Australian Review of Applied Linguistics*, 32 (3), 22.1-22.14.
- Couper, G. (2003). The value of an explicit pronunciation syllabus in ESOL teaching. *Prospect*, 18 (3), 53–70.
- Creswell, J. and Garret, A. (2008). The “movement” of mixed methods research and the role of educators. *South African Journal of Education* 28 (3), 321-333.
- Estival, D., and Molesworth, B. (2009). A study of EL2 pilots' radio communication in the general aviation environment. *Australian Review of Applied Linguistics*. Retrieved on January 10, 2022, from <https://doi.org/10.1075/aryl.32.3.04es>.
- Ellis, R., Tanaka, Y., and Yamazaki, A. (1994). *Classroom interaction, comprehension, and the acquisition of L2 word meanings*. , 44 (3), 449–491. Retrieved on January 10, 2022 from: [Doi:10.1111/j.1467-1770.1994.tb01114.x](https://doi.org/10.1111/j.1467-1770.1994.tb01114.x). Wiley online library.
- Federal Aviation Administration (2004). Crew resource management. Advisory Circular 120-51E. Washington, D.C.
- Hardiah, M. (2019). Improving students' listening skill by using audio visual media. *Al-Lughah: Language Journal Bahasa*, 7 (2). Retrieved on January 4, 2022, from: [Rhttps://ejournal.iainbengkulu.ac.id/index.php/alughah/article/view/1673/1432](https://ejournal.iainbengkulu.ac.id/index.php/alughah/article/view/1673/1432).
- Holsti, O. (1969). *Content analysis for the social sciences and humanities*. Reading, MA: Addison-Wesley.
- ICAO. (2001). *Annex 10 to the convention on international civil aviation: Aeronautical Telecommunications Volume II: Communication Procedures including those with PANS status (Sixth Edition)*.
- ICAO. (2004). Manual on the implementation of ICAO language

- proficiency requirements. Publication of Doc 9835-AN/453, Montreal.
- ICAO. (2010). *Manual on the implementation of ICAO language proficiency requirements*. 2nd ed., Montreal: International Civil Aviation Organization.
- Karimi, P. and Sanavi, R. (2014). Analyzing English language learning needs among students in aviation training program. *Procedia*, 98, 852-858.
- Kim, H., and Elder, C. (2015). Interrogating the construct of aviation English: Feedback from test takers in Korea. *Language Testing*, 32, 1-21. Retrieved on January 10, 2022 from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.899.4635&rep=rep1&type=pdf>
- Khodabakhshi, M. (2014). Choose a proper EFL textbook: evaluation of "Skyline" series. *Procedia - Social and Behavioral Sciences* 98, 959-967.
- Krippendorff, K. (2003). Content analysis: An introduction to its methodology Ch2 and 4. Retrieved on January 10, 2022, from file:///C:/Users/Toshiba/Desktop/intro_to_content_analysis.pdf
- Lasswell, H. (1948). The structure and function of communication in society. In L. Bryson (Ed.), *The communication of ideas* (pp. 37-51). New York: Harper and Brothers.
- Litz, D. (2000). Textbook evaluation and ELT management: A South Korean case study. Retrieved on January 4, 2022 from: https://www.asian-efl-journal.com/Litz_thesis.pdf.
- Mackay, R. and Mountford, A. (1978). *English for Specific Purposes*. London: Longman.
- Moder, C. (2013). Aviation English. In B. Paltridge (Ed.), *The Handbook of English for Specific Purposes*. West Sussex: Wiley Blackwell.
- Parohinog, D., and Meesri, C. (2015). ICAO-based needs assessment in Thailand's aviation industry: A Basis for designing a blended learning program. *Procedia - Social and Behavioral Sciences*, 208, 263-268.
- Robinson, P. (1991). *ESP Today: a Practitioner's Guide*. Hemel Hempstead: UK Prentice Hall International.
- Hamid, K., Hamed, K., Ali, K., and Ashraf, B. (2015). An analytical evaluation of aviation English textbook'. *International Journal of Research Studies in Language Learning*. 4 (1), 61-70.