EVALUATION AND CONTENT ANALYSIS OF “ENGLISH FOR AVIATION FOR PILOTS AND AIR TRAFFIC CONTROLLERS” TEXTBOOK AS AN ESP BOOK

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ABSTRACT
Books in language learning and teaching have an undeniable significant role. Since English language teaching is essential for air traffic controllers and pilots all around the world, the aim of this study is to clarify the role of a coursebook used in educating and training air traffic controllers and pilots. This study conducted an analysis and evaluation of an ESP book in aviation industry named “English for Aviation for Pilots and Air Traffic Controllers” by Oxford University Press. The analysis of this book is done by responding to the five questions about skills, content, sequencing, sociolinguistic factor of variety of language and format. To do this, a series of checklists from “teaching English to Speakers of Other Languages: Substance and Techniques” by Betty W. Robinett(1978), “Choosing your Coursebook” by Alan Cunningsworth(1995), and “Language Curriculum Design” by Nation(2010) were used. “English for Aviation for Pilots and Air Traffic Controllers” is analyzed and evaluated as suitable book for both purposes of classroom book and self-study. Notwithstanding some weaknesses, the book can satisfy the needs and interests of students whom are pilots and air traffic controllers to do their job with the first goal of safety.

KEYWORDS: communication, English language, aviation, ICAO, skills, activity, content.

INTRODUCTION
Some catastrophic accidents happened from the very beginning of aviation industry that were caused by language problems such as language misusing, misinterpretation of language used, malfunctioning in means of communication, different regional or social dialects and accents, lack in language knowledge or language use. English language is the unique language of aviation all around the world which is used not only in routine flights, but also in an emergency situation. Having the English language knowledge is vital for the safe conduct of flights and passengers lives. For instance, if an emergency occurred the pilot must be able to utter as simple and fluent as possible the nature of the situation and on the other hand the controller has to understand it completely without any missing part and then must take the proper action in order to resolve the emergency or assist the pilot of aircraft. Hence since 2008 ICAO (International Civil Aviation Organization) published and regulated the ICAO language proficiency requirement for
Sometimes the pilot or air traffic controller says a phrase that cannot be interpreted by the officer on the other side of the communication and then caused an accident or incident. For instance in Tenerife North Airport disaster the crash killed 583 people, making it the deadliest accident in aviation history in which the KLM co-pilot read back *WE ARE AT TAKEOFF* then the tower controller, who could not see the runway due to the dense fog, initially responded with "OK" (nonstandard phraseology), which reinforced the KLM captain's misinterpretation that they had takeoff clearance. The controller misinterpreted that they were in takeoff position and ready to begin the roll when takeoff clearance was received, but not in the process of taking off. The controller then immediately added "stand by for takeoff, I will call you," indicating that he had not intended the clearance to be interpreted as a takeoff clearance. Therefore one of the reasons in this crash was the use of ambiguous non-standard phrases by the KLM co-pilot ("We're at take off") and the Tenerife control tower ("OK").

Consider that in face to face interaction apart from listening and speaking skills, we have body language, facial expressions, etc in order to pass our intention to the hearer, but in aviation there is no other mean than listening skill and ability in radiotelephony communication which is more difficult, challenging and requires higher degree of language proficiency than face to face communication. In addition the sound quality may be poor; and there exists garbled voice, and background noises. Therefore a proficient aviator must be able to use his/her language in any unpredictable situation effectively.

Hymes (1972) claims that in order to achieve communicative goal, second language learners must learn to speak not only grammatically, but also "appropriately". Here in aviation English, this “appropriateness” is the matter that authors try their bests to achieve it by providing authentic, comprehensible, meaningful, contextualized instructional materials.

The goal of language learning is communicative competence. Therefore the aim of all language learning books is to teach learners communication. Apparently Aviation English communication is pilot-ATC, pilot-pilot and ATC-ATC communications.

The language proficiency requirements for Aviation English (AE) by ICAO apply to listening and speaking skills only and do not address the reading and writing. It is also worth to consider that nowadays the number of international flights, which fly over several different countries with variety of languages and accents, are increasing. Therefore the need for an international language like English and also its acquisition or learning is increasing too.
<table>
<thead>
<tr>
<th>Level</th>
<th>Pronunciation</th>
<th>Structure</th>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational</strong></td>
<td><em>4</em></td>
<td>Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.</td>
<td>Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances.</td>
</tr>
<tr>
<td><strong>Pre-operational</strong></td>
<td><em>3</em></td>
<td>Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled, errors frequently interfere with meaning.</td>
<td>Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics, but range is limited and the word choice often inappropriate. It often unable to paraphrase successfully when lacking vocabulary.</td>
</tr>
<tr>
<td><strong>Elementary</strong></td>
<td><em>2</em></td>
<td>Shows only limited control of a few simple memorized grammatical structures and sentence patterns.</td>
<td>Limited vocabulary range consisting only of isolated words and memorize phrases.</td>
</tr>
<tr>
<td><strong>Pre-elementary</strong></td>
<td><em>1</em></td>
<td>Perform at a level below the Elementary level.</td>
<td>Perform at a level below the Elementary level.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Fluency</th>
<th>Comprehension</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational</strong></td>
<td><em>4</em></td>
<td>Comprehension is mostly accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.</td>
<td>Responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming or clarifying.</td>
</tr>
<tr>
<td><strong>Pre-operational</strong></td>
<td><em>3</em></td>
<td>Comprehension is often accurate in on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users.</td>
<td>Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar.</td>
</tr>
</tbody>
</table>

Table 1: ICAO language proficiency rating scale for pilots and air traffic controllers (ICAO Annex 1)
Fillers are sometimes distracting. Users may fail to understand a linguistic or situational complication or an unexpected turn of events. Topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.

**Elementary 2**
Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words. Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated. Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges.

**Pre-elementary 1**
Performs at a level below the Elementary level. Performs at a level below the Elementary level. Performs at a level below the Elementary level.

At the same time books are important resources for teachers in order to help students to learn the instructional material and they are basic and main sources of data for the users.

Oxford University Press published English for Aviation for Pilots and Air Traffic Controllers after IACO regulated its operational level 4 rating scale and its deadline in 2008. The goal of the book is to train and educate not only the students of air traffic services and pilots, but also the current pilots and ATCS who are at work. Taking into account the ICAO rating scale, the researchers attempt to see this ESP book deals with six subskills of pronunciation, structures, vocabulary, fluency, comprehension and interaction. The book suggests that it can be used either as a coursebook in a class or a self-study book.

**Objectives of the study**
Because of the essential and unique role of language proficiency in aviation industry as a means of communication, the researchers try to analyze the defined areas of ICAO language proficiency rating scale. The present study believes that having a broader and deeper knowledge of content materials can assist teacher, designers, trainers, ESP material developers, ATCs and pilots, and aviation authorities to discover new approaches to improve the quality of coursebooks and consequently the quality of teaching and learning and also to provide a newly established ways of teaching.

**RESEARCH QUESTIONS**
To conduct, the current research provides methods in analysis of the book: Language skills, general content, sequencing, sociolinguistics factors, format (impression) evaluation and seeks to respond to following questions:
1. Does the book integrate the “four skills”? is there a balanced approach toward the skills?(language skills)
2. Does the book reflect what is now known about language and language learning?(general content)
   a. Authenticity of language
   b. Appropriateness and currency of topics, situations, and contexts
   c. Proficiency level—is it pitched for the right level?
3. How is the book sequenced?(sequencing)
4. Does the sociolinguistics factors are mentioned in the book? E.g. variety of language-Amercian, British, standard.
5. Is the book attractive, durable and usable?(format)

METHODOLOGY

Materials
The ESP coursebook “English for Aviation for Pilots and Air Traffic Controllers” by Sue Ellis and Terence Gerighty is the main material of this study in which there are 8 units arranging from Preflight and ground movements to landing phase and on the ground again. The main purpose of the book is to develop communicative competence of pilots and air traffic controllers and their language production while they are on duty of control center or tower and in command of aircraft.

Instruments
To manage the analysis, series of checklists from the three mentioned books in introduction are used. “Teaching by Principles” by Brown(2001) and “Approaches and Methods in Language Teaching” by Richards and Rodgers(2001), and other books are implemented to assist the evaluation.

RESULTS AND DISCUSSION

Language Skills
According to content-based instruction, English language skills must be integral in drills and activities. “It is important to integrate all the skills, as well as vocabulary and grammar in an authentic context”, Larsen-Freeman (2011). Therefore beside integrity of skills, authenticity is salient too. An authentic activity makes the learner feel in real situation or real life condition. So it helps the learning process in the learners mind.

Activities should be in a way to make learning meaningful in a real context. Stoller (1997) believes that language activities should be in service of language skills improvement. This study conduct an evaluation on each of the ICAO rating scale skills in details based on different types of activities and their frequencies in the book.

Six ICAO language skills are: vocabulary, pronunciation, structure, fluency, comprehension, and interaction.
Vocabulary
As shown in ICAO rating scale in Table 1, pilots and ATCs must be able to communicate effectively on common, concrete, and work-related topics and often paraphrase successfully when lacking vocabulary in unusual or unexpected situations. Table 2 illustrates the different types of drills and tasks which are presented in the book and their frequencies.

Table 2: Vocabulary Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>frequency</th>
<th>Activities</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair-work</td>
<td>4</td>
<td>Matching</td>
<td>5</td>
</tr>
<tr>
<td>Listen and choose</td>
<td>2</td>
<td>Using pictures and maps</td>
<td>8</td>
</tr>
<tr>
<td>Listen and check</td>
<td>1</td>
<td>Listen and write</td>
<td>1</td>
</tr>
<tr>
<td>Sentence completion</td>
<td>6</td>
<td>Listen and talk</td>
<td>1</td>
</tr>
<tr>
<td>Question answering</td>
<td>3</td>
<td>Experience telling</td>
<td>2</td>
</tr>
<tr>
<td>paraphrase</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Larsen-Freeman, Teaching should build on students’ previous experiences, therefore the book has two experience-telling which wants the students to talk about their real experiences in work.

As indicated in ICAO scale students can paraphrase the sentences when they lack in vocabulary knowledge. Only the last unit of the book has a paraphrasing activity. Paraphrasing is so important for pilots and air traffic controllers while they are working and they do not know the exact word or the other person does not understand a specific vocabulary, he/she must paraphrase the meaning of that word. In vocabulary activities of the book beside other types of activities, there are five listening activities that indicate the integrity of skills, likewise writing and speaking activities. According to Content-Based Instruction skills must be integrated in an authentic context. “Instructional materials should have authenticity and comprehensibility” Jack C. Richards. The most frequent activity is using map and pictures which are eight. These use visual memory of the learners in order to internalize target vocabularies.

In question answering activities also we can see integration of skills because they have writing and talking too. Activities have discussion and pair-work tasks which are in accordance with CBI. It is worth to mention that units 5 and 6 do not have vocabulary activities.

Pronunciation
Pronunciation is fundamental for comprehension, fluency and interaction. If the speaker cannot pronounce the sounds correctly, the hearer cannot understand and react properly. And also if there is no correct pronunciation there will be no fluency.

Table 3: pronunciation activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition</td>
<td>10</td>
</tr>
<tr>
<td>Listen &amp; Repeat</td>
<td>2</td>
</tr>
<tr>
<td>Pair work</td>
<td>2</td>
</tr>
</tbody>
</table>
One of the activities that students are suggested to improve is recognition which has the most frequency through the book. When a person realizes or recognizes the missed item (here is pronunciation), before it, he/she must have comprehended the meaning. Therefore recognition indicates the comprehension of the students. In almost all of the pronunciation activities in the book, first there is a recognition task, then provided by an audio track in the CD to check and monitor the students recognized input. The teacher in the classroom can correct the learners’ mistakes or in case of self-study, the student can self-monitor him/herself.

Unit one is merely dedicated to ICAO numbers and alphabet pronunciation. Unit one is the only unit which has listen and repeat exercises (two activities) and there is no trace of repetition in other units. So repetition which is in support of behaviorism in second language acquisition is neglected among the book with the exception of unit 1 and follows the functional, interactional and cognitive method of teaching pronunciation, for instance, recognition and pair-work drills.

In teaching of pronunciation, the book seems to have a sequence and order. Unit one has numbers and alphabet. Unit two works on 2-syllable words stress pattern. Unit three dedicated to stress pattern in sentences, e.g. interrogative and declarative sentences. Unit four discusses how to pronounce /s/, /ʃ/, /θ/ phonemes and also stressed words in sentences. Unit five tries to teach vowels and some diphthongs. Unit six talks about how to read a broadcast in a correct phonetic form and a pairwork. The broadcast context is aviation that provides comprehensibility and authenticity to the activity. Unit seven has activities about 3-syllable words stress pattern and even 4-syllable words. Unit eight provides three ways of pronouncing regular past tense [ed] verbs and consonant clusters in words. Therefore the book has an easy-to-difficult order of activities and pronunciation content material.

Structure
Pilots and air traffic controllers must know and use the correct and proper forms (structures) of English while they are communicating. Not having the knowledge of structure and even more important, not having the knowledge of how to use it in aviation communication may cause problems, incidents or even accidents. The purpose of the book is to train pilots and air traffic controllers to reach operational level 4 in which error may occur but rarely interfere with meaning.

Table 4: frequency table of structural activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>frequency</th>
<th>Activity</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap filling (completion)</td>
<td>5</td>
<td>Writing activity</td>
<td>1</td>
</tr>
<tr>
<td>Rearranging scrambled sentences</td>
<td>1</td>
<td>Underlining the correct form</td>
<td>1</td>
</tr>
<tr>
<td>Pairwork</td>
<td>3</td>
<td>Listen and complete</td>
<td>1</td>
</tr>
<tr>
<td>Matching</td>
<td>3</td>
<td>Retelling the story</td>
<td>1</td>
</tr>
<tr>
<td>Listen and choose</td>
<td>2</td>
<td>talk</td>
<td>2</td>
</tr>
</tbody>
</table>
Gap filling (completion) is the most frequent type of activity in structure parts, then matching and pair-work.

Again pair-work is detected as somehow an important activity in this area through the book to be compatible with communicative competence and CBI. The book tries to practice and work on all aspects of communicative competence. Canale defined the four aspects of communicative competence as: grammatical, discourse, sociolinguistic, strategic competence. For instance by pairwork activity the book works on sociolinguistic and strategic competence while here in structure section the main focus is on grammatical competence too.

In teaching structure, the authors provide other skills like speaking, writing, listening and interaction. Therefore here the book has integrity of skills too.

In each structure activity, after having enough exercised the tasks by learners, the book provides a small box in order to show the structural patterns of what the learner exercised. As it is known, this way of teaching grammar is called” induction”. So the book follows inductive teaching of structures. Functions are important in structure. Grammatical structures are fit to that specific function of the exercise.

In unit four, there is a structure box with no activity before and after it.

**Fluency**

ICAO: students must be able to provide sentences at an appropriate tempo and can make limited use of discourse markers and connectors. Fillers are not distracting.

The book seeks to teach the students the above goal.

<table>
<thead>
<tr>
<th>Activity</th>
<th>frequency</th>
<th>Activity</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>matching</td>
<td>4</td>
<td>Multiple choice test</td>
<td>1</td>
</tr>
<tr>
<td>Pair-work</td>
<td>7</td>
<td>underlining</td>
<td>1</td>
</tr>
<tr>
<td>Listen and question</td>
<td>4</td>
<td>Sentence completion</td>
<td>1</td>
</tr>
<tr>
<td>Question answering and talk</td>
<td>7</td>
<td>Picture matching</td>
<td>1</td>
</tr>
<tr>
<td>Experience telling</td>
<td>2</td>
<td>reading</td>
<td>10</td>
</tr>
</tbody>
</table>

Pair-work, question answering and talk are thereof the most frequent activities in this area which are all communicative in nature. There are ten reading exercises in which students will learn their fluencies. Fluency in reading is different from fluency in speaking. The book mostly tries to improve reading fluency ability of the students and tries less in speaking fluency. This amount of frequency shows the weakness of the book that the most frequent activity in fluency section is reading. As mentioned only fluency in speaking is significant in aviation and there is no use of reading in aviation. Although fluency in reading can effect on fluency in speaking, there is not a
Experience telling makes the environment contentful. By contentful, we mean there will be a relationship between language and work related real personal memories. Other students can add some points and comment on the told experience to have peer interaction.

On page 41, the book has a multiple choice test. Unit four has only reading fluency activity. Six listening activities depict the importance of this skill in obtaining fluency.

It is clear that in fluency section, the book has integrity of skills. For instance reading, writing and speaking as well (table 5 shows this fact).

**Interaction**

Pilots and ATCs can speak in an interactive manner; otherwise they will encounter a problem in their work. The learners should reach the level to check, confirm or clarify the misunderstandings. Responses are usually immediate, appropriate and informative. They can initiate and maintain exchanges even in unpredictable situations. Therefore students should learn interaction and its techniques and skills through 13 pair-work communicative activities in the book. Pair work is the most frequent activity in the book in this area. It is reasonable and logic because when the learner starts interaction there must be another learner or participant to interact. Therefore pair-work is relevant and appropriate to be the most frequent one.

<table>
<thead>
<tr>
<th>Activity</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair-work</td>
<td>13</td>
</tr>
<tr>
<td>Listen and check</td>
<td>1</td>
</tr>
<tr>
<td>explanation</td>
<td>1</td>
</tr>
<tr>
<td>Group-work</td>
<td>1</td>
</tr>
<tr>
<td>Listen and answer</td>
<td>1</td>
</tr>
</tbody>
</table>

Beside pair work activities, there are only four other activities among the whole book. This is another sign that interactive pair work activities are playing the major role in this area. The book demonstrates a good image of interaction for learners with its 13 pair work communicative exercises. It is clear from the table that first students are asked to listen to the audio, then check, answer or explain the heard voice. Listening is a comprehensive skill and speaking is a productive skill. Both are needed in interaction. So we have comprehension and production with each other. It is worth to mention here the significance of the role of interaction in aviation that if there is no capability to interact, ATCs and pilots will not work at all.

**Comprehension**

Comprehension is the most vital language skill for pilots and ATCs. If a pilot or an ATC cannot understand the meaning of the message correctly, the consequences will probably be dangerous and when they misunderstand the meaning, the situation will be even more dangerous.
Here in this book, comprehension skill is the same as listening to some extent. Six activities out of 11 types of activities throughout the book are dedicated to listening skill. It shows the significance of listening comprehension in aviation and the role of it in AE.

Again in this area the book has two experience telling activities show the authenticity of the book as an ESP book. Interestingly the book has two reading comprehension parts in which students attempt to improve their comprehension ability in reading skill too. The need for reading comprehension is much less than listening comprehension.

It is worth to mention that having the knowledge of different accents is necessary for pilots and ATCs, because pilots may fly over different regions and countries around the world and ATCs have variety of international over flight, arrival and departure flight in their area of responsibility with different accents and dialects. At least being familiar with the American and British English is necessary and needed. This book attempts to show some of the differences between them.

38 activities are in listening and 3 are in matching. This contrast shows that comprehension ability or skill must be learnt by listening tasks. If there is no comprehension, there will not be production and performance. Hence comprehension is the base of performance. By performance, it is meant interaction, speaking and writing of which this study discusses the interaction and speaking. In this area there are interaction, reading, listening, discussion and experience telling. Hence, as CBI method suggests, integrity of skills is clear.

**Content**

Willis and Willis have provided six questions that can help us to evaluate the curriculum in respect of belonging to task-based language teaching or not. Fives are appropriate in evaluation of the books. The answers of these questions are as follows:

1. The book engages the learner’s interests via interesting, work related and situational audio tracks and readings, etc.
2. Of course the focus of the book is on meaning.
3. The outcome of the book is getting ICAO operational level 4 examination.
4. To some extent completion is the priority of the activities of the book.
5. Activities are in authentic and real contexts.

Thus we can conclude that the content is task-based.
The students of this book are ATCs and pilots, so they have background knowledge of Aviation and English language. Therefore the proficiency level of the book is suitable for the level of the learners. In Krashen’s (1985) term it is i+1 in order to be effective in the acquisition process.

The learners are seeking to reach ICAO level 4 of language proficiency and the book’s goal is exactly the same. Therefore the content suits the needs of learners. As mentioned before the content suits the interests of them too. Ideas can help the learning of language and are useful to the learners. The idea content of this book is a specific academic subject (aviation English). As this book is an ESP course book, this idea content suits the interests and needs of the learners.

The content is aviation and the learners are adult pilots and air traffic controllers. So the age and content are appropriate.

**Sequencing**

The book consists of eight units. The first unit of the book is “Introduction to Air Communications”. As the name suggests, it is an introductory unit. It starts with the basics and teaches basic information in aviation and aviation English e.g. pronunciation standards.

The order of the book is chronological which starts from “Pre-flight”, then “Ground Movements” to “Landing” and “On the Ground” again.

Unit two begins with preflight checks and unit eight ends in Taxiing and getting to the gate. In the topics under the title of each unit, there are some non-routine situations that provide some emergency or unusual conditions in the field of aviation in order to prepare pilots and ATCs to be ready for them. Non-routine and emergency situations are inevitable and inseparable events in aviation industry.

Each unit has a Starter section which is accompanied by pictures and is followed by a kind of warm-up exercise that includes discussion, checking, matching, completion or reasoning and talking in pairs communicatively. At the end of the book, there are appendixes. The first is “Test Yourself!” which is crossword puzzle for evaluating and testing vocabulary knowledge of the students’ lexicon (Chomsky’s term (1957)).

Then, there are the “Partner Files” which are used in pair work interaction tasks. After them, there is “Answer Key” which is the answers of the activities through the book. The book is used for self-study as well as a coursebook in a class. In former, the learner may need some of the responses which can be obtained from this part.

Finally, there is “Transcripts” which are used for CD audio tracks. At the end of each unit a section exists which is called “Output”. It is a kind of reading comprehension. Another part is “Over to You” that is an activity of discussion, thinking and giving opinions, telling experiences and real past stories. Responds to this part is not obligatory in classroom by the teacher. The book follows the linear approach to sequencing because has an easy-to-difficult order of providing the items and skills. This kind of sequencing (linear) is appropriate for the development of
vocabulary, structural items, fluency, pronunciation, comprehension and. Therefore once an item has been presented in a class, it has been learned and does not need focused revision (Nation, 2010, Language Curriculum Design). As the instructed materials will not be exercised again during the course, if a student cannot obtain that material completely or the matter of absenteeism is the disadvantage of linear approach. So each unit designed on the basis of previous knowledge of the students and knowledge provided in previous unit. Therefore the book helps learners make the most effective use of previous knowledge (learning burden). It is worth to mention again here that the integrity of skills through the whole book has a positive effect on each other for learning and so that interference effects are avoided. (Interference)

According to the fluency of the exercises in each of the skill areas, the book provides the best possible coverage language through inclusion of items. The book progressively covers useful language items and skills (keep moving forward). Teachers of this coursebook should be aware of aviation knowledge and is recommended to be an ATC or a pilot, and he/she can account of when the learners are most ready to learn the skill. So far the study covered these areas of content: 1. learning burden 2. interference 3. teacherability.

Sociolinguistic Factor (variety of language)
Variety of language is significant in aviation English because it is an international language which the participants are from different countries with different mother tongue and its own linguistic rules. They must learn, speak and understand the standard English being used in aviation. Books should provide materials in order to teach the learners this issue.

Throughout the book variety of English language is mentioned in different sections and in variety of forms. For instance, there is a part in the book that indicates the different pronunciations such as British and American. In other part there is a box which shows the different kinds of dictation of English, for example aerodrome/airport or aeroplane/airplane. There is standard phraseology in many situations in aviation radio telephony communications which there is no trace of it in the book.

Format
As the book is an ESP book, it is apparently a meaning-focused book. It focuses also to the skills of language proficiency of AE (ICAO), so it is language focused too, including the fluency in AE. Therefore it meets the four strands principle which is meaning focused input, language-focused learning, meaning focused output and fluency.

As mentioned above the input is based on meanings, because meanings are vital and essential in the aviation industry. So the book has comprehensible input. Activities aimed at increasing the fluency through the book in order to make learners use their knowledge receptively and productively. But honestly speaking it is the weakness of the book that the majority of these field activities are in reading.

In the 21st century, technology, beauty, colors and design are essential elements for the books to affect the reader (learner). Therefore publishers must focus on these issues to be influential and
successful. The book includes CD ROM and audio CD with attractive relevant effective radio telephony extracts. CD ROM has an alphabetical word list and interactive exercises in different colors.

The cover of the book is blue with a very attractive design. The three images make the front cover attractive. Each unit starts with pictures and their relevant exercises. All units are started with different real images with the exception of unit 3 and 8. These units are started by sign pictures. Each page of the book includes one color at least other than the color of the heading of exercises and their stems. So the book is multicolored. Different kinds of pictures are shown in the following table.

<table>
<thead>
<tr>
<th>Picture</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Image</td>
<td>57</td>
</tr>
<tr>
<td>Cartoon</td>
<td>89</td>
</tr>
<tr>
<td>Aeronautical</td>
<td>1</td>
</tr>
<tr>
<td>Chart Box</td>
<td>31</td>
</tr>
<tr>
<td>TOTAL</td>
<td>147</td>
</tr>
</tbody>
</table>

147 pictures in only 95 pages indicate that each page of this book has at least one picture. Real photos consist of peoples’ faces, aircraft in variety of angles, flights in different phases. Different incidental or accident situations like burst tire, ground crash, wild animal or fire onboard and also meteorological phenomena like volcanic ash and etc. Therefore the design of the book is attractive and pleasant for the readers. They will not be bored while they are studying this book. As the book itself suggests, students can use this book as either a coursebook in class or self-study book. For this purpose, the book has the Audio CD, CD ROM and Answer Keys and a section in all units named Over to You.

The major content of boxes in the book is variety of language, structural clues and useful language tips.

If the teacher of the course with this instructional material intends to teach aviation English and general English via topics, he/she will not be able to use this book. Because the book does not have situational-topical unit titles, the units cannot be taught randomly, and the learners loose the other provided materials. The other reason for not being able to use the book randomly is the linear order of the book. The third reason is that the book follows easy-to-difficult way of material presentation.

Based on the purpose of the book which is to train and teach pilots and ATCs for higher and better proficiency according to ICAO operational level 4, the book is durable, but the design, pictures and images may need to be changed in future to include more recent images of that era. This book fits to the needs of pilots and ATCs in instructional issues. Instructional issues are those six language skills of ICAO, but not the needs of teachers completely, because the chronological order of units and easy-to-difficult way of providing materials.
The book could satisfy the interests of learners to some extent and not completely, because most learners are interested in situational unit titles (based on a research on Iranian air traffic controllers). Some situational topics in aviation industry is: sick passenger, runway incursion, excursion, shortage of fuel, fire, dangerous goods, pressurization, landing problems, strikes, communication failure and etc. therefore the problem is time sequential order of units.

CONCLUSION
The aim of this study is to analyze and evaluate an ESP book in aviation industry named “English for Aviation for pilots and ATCs”. In this analysis some questions in the domain of the skills, contents, sequencing, sociolinguistic feature of variety of language and format were responded. In order to answer these questions a series of checklists from “Teaching English to speakers of other languages: substance and techniques” by Betty W. Robinett (1978), “choosing your coursebook” by Alan Cunningsworth(1995), and “Language Curriculum Design” by Nation were used.

It is vital for ATCs and pilots to recall ICAO operational level of English to avoid catastrophic accident resulted from lack of English knowledge. This knowledge consists of comprehension and production. In vocabulary sections throughout the book, according to frequency table of vocabulary activities, using picture and maps is the most frequent one. These use visual memory of the learners to internalize target vocabulary. Only the last unit of the book has paraphrasing. A pilot or an ATC should be able be to paraphrase in conditions when the intended word cannot be comprehended or cannot be recalled to say. An effective and influential book should work on paraphrasing because it is essential in the field of aviation, especially in abnormal and unusual situations while safety is the first issue at work. Totally, vocabulary activities are evaluated as compatible with modern methods in language learning and teaching, but with some lacks and weak points. Having natural pronunciation is necessary in aviation for the sake of safety. The major activity in pronunciation sections of the book is recognition which works on both comprehension and production.

There is an easy-to-difficult order of activities in pronunciation. Providing structural patterns in the book has an inductive way. Gap filling, pairwork and matching are the most frequent activities in the book. The book has integrity of skills through combination of different language skills like speaking, writing, listening and interaction in order to practice on structures. Fluency is the weakest point of the book, because the most frequent activity is reading which is irrelevant to the nature of aviation. Experience telling and pairwork provide authenticity and contextualization. As the nature of interaction is to have two participants to exercise, pairwork is the most frequent activity. The authors provided a god deal of interaction exercises in the book to learn interaction to the learners. Despite interaction in these practices the book has listening activity too. In the comprehension area, 38 activities in listening and 3 in matching were used. It shows that comprehension skill must be learnt by listening tasks. In a number of pages, the book tries to teach and present some tips in language variations between American and British English. Knowledge in variety of language helps the pilots and ATCs to work with persons that have different mother tongues.
The book follows linear approach to sequencing because has an easy-to-difficult order of providing items and skills. As evaluated in the discussion section, it has its own benefits and disadvantages. Finally in the domain of format and presentation, the book meets the few strands principle which in meaning-focused input, language-focused input, language-focused learning, meaning-focused output and fluency.

REFERENCES