revista.pucsp.br/esp | ISSN: 2318-7115

The Especialist

Volume 41 | Número 3 | Ano 2020

Language issues of Brazilian pilots regarding structure: A comparative study between student pilots and SDEA test takers

Problemas linguísticos de pilotos brasileiros relacionados à estrutura: um estudo comparativo entre alunos pilotos e pilotos candidatos ao SDEA

Aline PACHECO (PUCRS)[1]
Angela C. M. GARCIA (ANAC)[2]

ABSTRACT

This article addresses the most common language problems of Brazilian pilots regarding structure, a fundamental skill in aeronautical communications (DOC 9835). We aim to present an overview of the most specific errors made by student-pilots and Santos Dumont English Assessment (SDEA) test takers and compare them in order to better understand their language competence. The qualitative analysis will be based on lists which feature data collected from classroom work (student pilots) and SDEA report forms (RFs). The study is intended to provide researchers with more tools to deal with Aviation English focusing on pilot performance, as well as to contribute to better curriculum design and improvements in assessment practices.

Keywords: Brazilian pilots, Aviation English training, Language testing, Structure errors

RESUMO

Este artigo discute os problemas de linguagem mais comuns de pilotos brasileiros em relação à estrutura, aspecto fundamental em comunicações aeronáuticas (DOC 9835). Nosso objetivo é apresentar um panorama geral dos erros mais específicos cometidos por pilotos em fase de formação universitária e por pilotos participantes do teste Santos Dumont English Assessment (SDEA) e, posteriormente, comparar tais erros a fim de entender melhor a competência linguística desses sujeitos. A análise qualitativa será baseada em listas que apresentam dados coletados do trabalho em sala de aula (pilotos em formação acadêmica) e formulários de relatório da SDEA (RFs). O estudo tem como objetivo fornecer aos pesquisadores mais ferramentas para abordar o inglês para aviação com foco no desempenho dos pilotos, bem como contribuir para elaboração de material curricular e aperfeiçoamento de práticas de avaliação.

Palavras-Chave: *Pilotos brasileiros, Treinamento em inglês para aviação, Teste de idioma, Erros de estrutura*

[1] Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, Rio Grande do Sul, Brazil. School of Technology and School of Humanities. ORCID: http://orcid.org/0000-0003-1638-0215; aline.pacheco@pucrs.br
[2] National Civil Aviation Agency, Belo Horizonte, Minas Gerais, Brazil; ORCID: https://orcid.org/0000-0003-3018-2370; angela.garcia@anac.gov.br

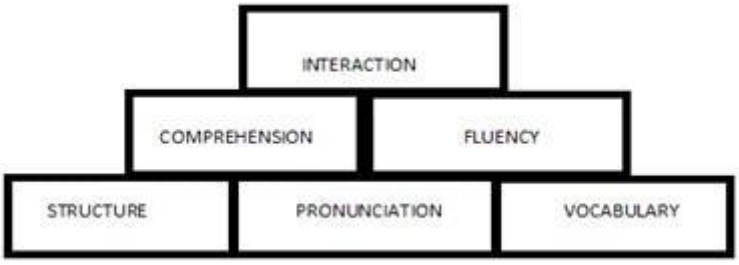
1. Introduction

The International Civil Aviation Organization (ICAO)'s council adopted the Standards and Recommended Practices (SARPs) concerning the language proficiency requirements (LPRs) for pilots and air traffic controllers (ATCOs) in 2003. These requirements were imposed because lack of language proficiency among pilots and ATCOs was proved to have contributed to many aircraft incidents and accidents. Pilots and ATCOs, from March 5th 2008 (later extended to 2011), would need to have demonstrated their ability to speak and understand the language used for radiotelephony communications (in the case of international flights, this language is English). ICAO (2010) explains that tests should be designed to assess pilots' and ATCOs' listening and speaking abilities in accordance with each component of a set of holistic descriptors and the ICAO rating scale. The rating scale consists of a table of descriptors that range from levels 1 to 6 in six criteria (pronunciation, structure, vocabulary, fluency, comprehension and interactions). According to ICAO's recommendations, the proficiency of those who are awarded level 4 (minimum level for compliance with the LPRs) should be demonstrated every three years, and of those who are awarded a level 5, every six years. Level 6 test takers do not need to have their proficiency evaluated again.

In Brazil, two different governmental organizations have been responsible for the implementation, development and administration of the national ICAO language proficiency tests: the National Civil Aviation Agency (ANAC), responsible for assessing civilian pilots' proficiency in aeronautical English, and the Department of Airspace Control (DECEA), responsible for the assessment of ATCOs' language proficiency. The national test developed by ANAC is the *Santos Dumont English Assessment* (SDEA)[3] and the one designed by DECEA's Air Space Control Institute (ICEA) is the *Brazilian Airspace Control System's Proficiency Exam in Aeronautical English* (EPLIS)[4].

ICAO Document 9835 (2010) displays a pyramid with the six basic language skills that feature communications in aviation (see Figure 1).

Figure 1. A Pyramid Structure of Language Proficiency



Source: ICAO (2010).

[3] https://www.anac.gov.br/sdea
[4] https://eplis.icea.gov.br/

 DOI: 10.23925/2318-7115.2020v41i3a6

Interaction lies on the top of the pyramid. It is defined as "the ability to engage in spontaneous spoken dialogue and to successfully achieve communicative goals" (ICAO DOC 9835), and is the final attainment and can only be achieved through successful performance in comprehension and fluency, which are also built upon vocabulary, pronunciation and structure. Therefore, according to this illustration, the three skills presented at the base of the pyramid are crucial to support successful interactions in aviation. The pyramid is not intended to portray a sequence of the language learning process or language use. It is meant to represent an ideal association of the linguistic components that are relevant to proficient language use.

This article aims to discuss the most common language problems of Brazilian pilots regarding structure, a skill (as put by the ICAO DOC 9835) that is part of the base of the pyramid shown above. An overview of the errors made by student pilots and SDEA test takers is presented and then compared. The errors analysed were the ones perceived to be more important either to the teacher or to the examiner. An interpretation of the results is carried out in order to better understand pilots' language competence ("the knowledge and meaningful usage of the linguistic features of a certain language", according to ICAO DOC9835, p. 2-2) through their most frequent errors regarding English language structure in order to have more tools to address those issues both in the training and testing contexts.

1.1 Background on pilots training at PUCRS (Pontifical Catholic University of Rio Grande do Sul)

In order to support aviation safety, follow the guidelines and comply with the requirements, language training programs for pilots must be mindful of their responsibility and promote practices that address specific issues that might impact operations negatively. Academic centers, such as PUCRS, should act as points of reference for information about research and innovative training methods. The Aeronautical Science Program at PUCRS offers ab-initio pilots comprehensive language training through the following courses: International Phraseology, Aeronautical Technical Terminology and English for Aviation. International Phraseology is a clear-cut course taught in a flight laboratory by a pilot or an air traffic controller, designed to foster aeronautical communication practices that entail specific flight knowledge. Aeronautical Technical Terminology is a four-credit-hour course supposed intended to offer the basis for students to read and interpret flight manuals appropriately and demands, besides some technical knowledge about aircraft, a good amount of knowledge about linguistic features such as noun clusters, for instance. The English for Aviation courses add up to twelve credit hours in the three-year Program, in which students have the chance to build and improve their language skills along with their aeronautical knowledge. Through the use of coursebooks and a wide array of tailor-made

 DOI: 10.23925/2318-7115.2020v41i3a6

communicative activities, students theoretically start from the pre-intermediate level to reach an advanced level of proficiency by the end of the program, although student success in practice depends heavily on individual factors. The program proposes a minimum of pre-intermediate proficiency level for entry, a stipulation which is mostly followed. Regardless of their individual proficiency level, learners have to take English for Aviation (EFA) I, II, III, and IV to graduate. In order to be accepted, it is required that students have fifteen hours of real flight experience and they conclude the Program with a minimum of 150 flight hours and an IFR- CPL (SEL-MEL)[5] and the theory of their ATPL and CFIL[6].

1.2 Background on Brazilian pilots' ICAO LPRs testing

The SDEA was developed by ANAC in order to implement ICAO's LPRs for pilots in Brazil. The SDEA evaluates pilots' speaking and listening abilities in an oral interview test. It takes approximately 40 minutes to complete the test. The SDEA has test versions for airplane or helicopter pilots. The test consists of four parts. In the first part of the test (*Aviation Topics*), test takers are asked open-ended questions regarding aviation or their background as pilots. In the second part of the test (*Interacting as a Pilot*), test takers interact as pilots in five different situations. They listen to ten air traffic control communications. In the third part of the test (*Unexpected Situations*), test takers listen to three dialogues between pilots and air traffic controllers and report everything they have understood, in their own words. After that, they answer a question related to the topic of the audio. In Part 4 (*Picture Description and Discussion*), test takers need to describe a picture to the interlocutor and then answer at least five questions related to the picture. A range of different accents (native and non-native speakers) is included in each test version.

ANAC has accredited some institutions to administer the SDEA. By the end of 2019 there were ten accredited institutions in Brazil, comprising airlines, training centers and English schools, and thirty-five examiners working at these institutions. At least two examiners rate the performance of each test taker: an English Language Expert (ELE), with whom the test taker interacts, and a Subject Matter Expert (SME), who is an experienced pilot or air traffic controller. Each examiner rates the test takers according to the ICAO rating scale. However, although the rating scale levels range from 1 to 6, the SDEA only distinguishes test takers from level 1 to level 5. Each examiner rates the test taker independently. If there is no need for a third evaluation (in case of divergent scores), the two examiners write a report form (RF) together. In this RF, they must provide positive and negative examples of the test-taker's oral production. It is important to explain that, for structure, examiners must give six or seven positive examples in cases when the test takers get a level 4 or 5, and three or four examples of

[5] Instrument Flight Rules, Commercial Pilot License, Single Engine License, Multi Engine License.
[6] Airline Transport Pilot License, Certified flight Instructor License.

grammar mistakes, whereas, if the test taker gets a level 3, or lower, examiners have to provide six or seven examples of poor grammar, and three or four instances of more accurate performance, whenever possible. Examiners are asked to include in the RF the examples that they consider to be the best and the worst.

2. Literature review

During the language training, students display linguistic issues that are observed in the regular process of L2 English acquisition. Bieswanger (2016) observed that "the grammatical structure of plain Aviation English is similar to plain English and is only characterized by some tendencies which constitute functionally oriented registered features". Pacheco (2010) outlined the developmental stages of the acquisition of thirteen grammatical morphemes and some of the results point at the difficulty faced by Brazilian learners of English when dealing with structures such as Simple Present and Simple Past - results show an average rate of 90% of correction with students in the advanced level. Interestingly, similar results were reached in a research study conducted specifically within the Aviation English framework on Brazilian student-pilots: according to Pacheco (2019), errors that can be explained by inflection problems regarding Simple Present 3rd person and Simple Past ranked first as the most frequent structure errors.

ICAO DOC 9835, in section 3.3.4.1, maintains that language errors cover reception (understanding) and production (speaking) and are "failures to comply with a norm of the language system or subsystem being used."

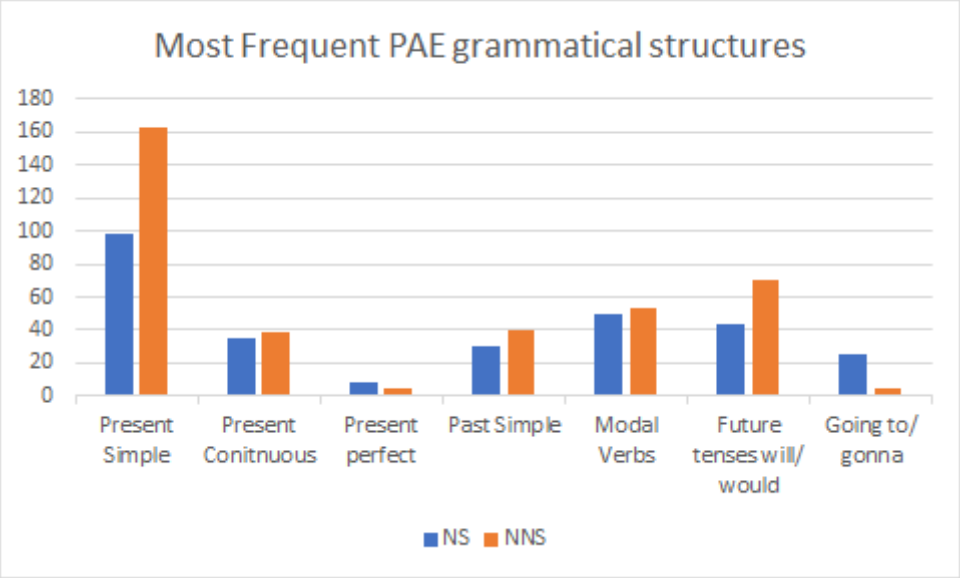
The aeronautical communication context is intrinsically complex, as it involves native (NS) and non-native speakers (NNS) of English and specific language registers such as standard phraseology (SP) along with plain aviation language in a high stakes scenario (ESTIVAL; FARRIS; MOLESWORTH, 2016; BIERSWANGER, 2016).

As reported by Borowska (2017), the main grammar errors made by NNSs would include tense confusions, problems with the sequence of tenses in adverbials of time, tense to indicate a condition, jumbling the tenses, infinitive patterns, and collocations with or without *to*. She adds that, in general, it looks like NNSs feel more comfortable using SP. However, NSs seem to prefer not to use SP and rely mainly on general English. The mother tongue is a powerful variable in this study. For Borowska (2017, p. 207), "[t]he impact of mother tongues on AeE is beyond doubt. NNSs use constructions influenced by transfers from their native language".

In an analysis of interactions between pilots and air traffic controllers, both native and non-native speakers of English, Borowska (2017) investigated the use of Plain Aeronautical English (PAE) in

Aeronautical discourse, through conversations that totalled 114.17 minutes. The structures which are most frequently used (and correctly employed) according to Borowska are presented in Figure 2 below.

Figure 2. Most Frequent Plain Aeronautical English Grammatical Structures.



Source: Borowska (2017, p. 180).

According to her study, Present Simple is the most used grammatical structure by pilots: "the Present Simple Tense occurs in each exchange and the total number of its uses in our corpus is 265. NNSs used Present Simple 166 times and NSs 99 times. Therefore, NNSs feel very comfortable with those structures" (p. 180). The accurate use of grammatical structures as a language skill is fundamental in aviation communications. In order to cope with certain communicative requirements in interactions pilots must try to avoid grammatical errors that might impact negatively on operations. Lack of language proficiency regarding basic issues such as tense marking can harm interactions in such a way as to compromise aviation safety even considering context as a factor that provides a framework for the comprehension of the utterances.

Mathews (2012) suggested that a more detailed linguistic analysis suggests that inadequate language proficiency, a low level of awareness of the threats inherent in cross-cultural communications and inadequate communication strategies (in this order) were the cause of a series of unsuccessful communications. Boroswka (2017, p. 181) claimed that the listener's correct interpretation of the function of an utterance relies on cues provided by the grammatical structures such as verb tense, affirmative or negative form, and added that " NNS who fail to understand the structures used, would remain unaware of whether a particular piece of information was central or peripheral " to the message as a whole.

 DOI: 10.23925/2318-7115.2020v41i3a6

In relation to the use of complex structures by pilots, participants in Knoch's (2009) study pointed out it cannot be assumed that unusual or unexpected situations elicit complex grammatical structures while routine situations elicit basic structures. Pfeiffer (2009, p. 16) also acknowledged that "in the real aviation world, complex situations do not always generate complex language and hence the question arises whether the descriptor in question does not lack validity to a certain extent". A participant in her research also argued that "the degree of manipulation of basic and complex structures and the degree and density of grammatical error at level 4 to 6 is unclear" (p. 30). Nevertheless, their comments (which, as previously discussed, were few in relation to structure) were generally positive regarding this skill.

Prado (2015) compiled a spoken corpus of the plain language used by pilots and ATCs in abnormal situations. She compared her results with the glossary of basic and complex structures published by ICAO in the second edition of DOC 9835 (Appendix E). She found out that, in abnormal situations, pilots and ATCs tend to use simple language. The main verb tenses used are present continuous and simple present. Past simple, present perfect, simple future, and *going to* are less frequently used. Similarly, one of the participants in Garcia (2015) also criticized ICAO's glossary of basic and complex structures. He pointed out that "the list of basic and complex structures (…) is not rooted in any sense of research either in the target language use domain or in the wider field of applied linguistics language teaching, and I think it's really poorly thought out" (p. 41). He also mentioned that the glossary includes language features that are more related to vocabulary than to grammar.

In Pacheco's (2019) discussion of the impact of such errors, the results were unclear. In other words, professionals involved in Aviation English (teachers, trainers, pilots, air traffic controllers, raters, aviation authority personnel and others) seem not to have a consensual view on how these errors could in fact harm safety. This is, by itself, an indication that more reflection is needed about the training and testing stages covering basic skills such as structure.

As PUCRS is a benchmark academic center for pilot training in Brazil, and ANAC is the aviation authority in Brazil responsible for assessing civilian pilots' proficiency in aeronautical English, work in collaboration is seen of utmost importance towards aviation safety. In order to investigate pilots' language issues with structure, we pose the following research questions:

1) What are the most frequent structure errors made by Brazilian student pilots in their training stages?
2) What structure errors made by SDEA test takers seem to be considered the most serious by the examiners?
3) Are these errors similar?

 DOI: 10.23925/2318-7115.2020v41i3a6

3. Method

This qualitative study is divided into two similar but parallel parts whose results are presented and compared later in this article. The first part of this study aims to address the research question regarding the most frequent structure errors made by student pilots in their training stages, whereas the second part aims to address the second research question which refers to the most frequent grammar errors made by SDEA test takers. Qualitative data (oral text) were collected and coded. As explained by Saldaña (2013, p. 8), coding is "a method that enables you to organize and group similarly coded data into categories or 'families' because they share some characteristic". The data were also quantitized (the qualitative data was converted into quantitative data). Following the understanding of Sandelowski, Voils and Knafl (2009, p. 3), in qualitative studies (i.e., studies consisting only of what are generally considered to be qualitative modes of sampling, data collection and analysis, and interpretation), quantitizing is done to facilitate pattern recognition or otherwise to extract meaning from qualitative data, account for all data, document analytic moves, and verify interpretations". They add that "quantitizing here is done to form qualitative data in ways that will allow analysts to discern and to show regularities or peculiarities in qualitative data they might not otherwise see or be able simply to communicate, or to determine that a pattern or idiosyncrasy they thought was there is not" (p. 3).

The two sets of data were originally collected from the subjects in different periods of time and for separate independent purposes. In other words, all the participants, both the student pilots in their academic environment and the pilots applying for their language proficiency endorsement on their license were complying with special requirements. This is why information regarding the number of subjects and categories analysed is not identical. It is essential to highlight that the kind of study we are proposing is a preliminary effort to analyse the specific linguistic issues of pilots regarding structure taking into account Brazilian student pilots and SDEA test takers. In an attempt to show a more detailed picture of grammatical errors of pilots in Brazil, we resorted to data that were available, since it is not an easy task to standardize data collection methods in such different contexts.

3.1 Student pilots

The subjects at the time of data collection regularly attend the Aeronautical Science Program at PUCRS. They are mostly male, ranging in age from 18 to 23 years old. The data presented were collected from reports that registered the language performance of student pilots in their training at PUCRS from August 2016 until December 2019. As assessment, they are required to have two oral performance activities in each course, that vary from oral presentations (about airports, airlines, crashes and academic articles about these topics) and mock interviews that are based on questions used in

 DOI: 10.23925/2318-7115.2020v41i3a6

language proficiency tests for aviation worldwide. With a view to evaluating students' oral performance as effectively as possible and offering them feedback, reports were made (informally referred to as "debriefing sheets"), which contained not only grades but also information about students' specific errors, mostly regarding pronunciation, structure and vocabulary - the basic skills, as mentioned before. This study will consider only the errors regarding structure from all the reports from student pilots compiled until December of 2019. Below, Table 1 presents the number of reports (debriefings) considered and the errors distributed in each level of the English for Aviation courses (EFA)[7].

Table 1. Total number of occurrences and Reports per course.

	EFAI	**EFAII**	**EFAIII**	**EFAIV**	**TOTAL**
Errors	702	563	980	592	2837
Total of Reports	398	277	368	161	1204

For research purposes, the information extracted was used to compile lists of language errors, which were tagged so that they can be used for different intents. Table 2 provides an illustration of such lists:

Table 2. English for Aviation I (excerpt).

N	**Structure**	**Type[8]**
3	Your location/ position	WWPn (Wrong Word Pronoun)
	...is so good	LWPr (Lack of Word Preposition)
	Is already exist	WWV (Wrong Word Verb)
2	He is (airport)	WWPn (Wrong Word Pronoun)
	A features / studies	WWArt (Wrong Word Article)
2	It's take	InflOuBE (Inflection Overuse BE)
	Without increase	LGer (Lack of Gerund)
	Runways was congested	InflBE (Inflection BE)
	To don't affect	Neg Inf (Negative Infinitive)
	If the airport grow more	Infl3rd (Inflection 3rd Person)
	Aircrafts that has	InflOu3 (Inflection Overuse 3rd Person)
4	Others airports/studies/ countries	PlAd (Plural Adjective)
	A unwanted	WWArt (Wrong Word Article)
	Doesn't found	InflOu3 (Inflection Overuse 3rd Person)
	Children who lives	InflOu3 (Inflection Overuse 3rd Person)
	People who has/ lives	InflOu3 (Inflection Overuse 3rd Person)

The errors were classified according to a list that contains tags with each error conforming to its type[9]. Categories ranged from problems with nouns, adjectives, adverbs, articles, prepositions and

[7] For the purposes of this study, we are going to consider the level of the Course to reflect the level of proficiency of all students, since they have not been individually tested.
[8] Appendix A features a list with all the types of errors used in the analysis of student pilots, with the coding and the occurrences.
[9] The lists used in this study were organized by the authors, each in their field of performance.

pronouns to verb inflection and tense marking. In some of the tags, it is possible to determine the specific issue, such as "wrong word", "extra word" or "lack of word". For instance: WWPn (Wrong Word Pronoun), LWPr (Lack of Word Preposition), EWArt (Extra Word Article) or problems reflecting inflection, such as InflPa (Inflection Past Simple), Infl3rd (Inflection Third person singular), among others.

After coding the data, the categories were manually counted, with the help of some of the tools available in Microsoft Word to reach the total number of occurrences and the ten most frequent errors. In order to show the results in percentage, we calculated the number of occurrences of each error against the total number of occurrences of all errors.

3.2 SDEA test takers

The data were collected from the SDEA's RFs concerning tests that happened between January and December 2019. 100 RFs were randomly chosen, taking into consideration the proportion of levels that were awarded in 2019 (see table 3 below). It is interesting to point out that, from the 27 test takers who were awarded a final level 3, 24 of them scored 3 in structure, 14 in pronunciation, 12 in vocabulary, 8 in fluency, 7 in comprehension, and 5 in interactions, which means that structure is the area in which test takers fail the most.

Table 3. Number and percentage of SDEA tests in 2019 in relation to test takers' final levels compared with the number and percentage of RFs analysed in this study in relation to test takers' final level.

Test takers' final levels	Number of SDEA tests in 2019	Percentage	Number of RFs analysed in this study	Percentage
1	21	0,52%	0	0%
2	60	1.48%	2	2%
3	1090	26,95%	27	27%
4	2315	57,23%	57	57%
5	559	13,82%	14	14%
Total	4045	100%	100	100%

Test takers were mostly male (98 male and 2 female), airplane pilots (90 airplane pilots, 7 helicopter pilots and 3 both airplane and helicopter pilots), and professional pilots (2 private pilots, 56 commercial pilots, and 42 airline transport pilots). Test takers were born between 1955 and 1999. RFs from all ten accredited institutions were analysed. They were produced by a total of 33 examiners.

397 sentences were qualitatively analysed in terms of the types of grammar mistake(s) made by the test taker in each sentence. The errors were initially coded in relation to the list of grammar

 DOI: 10.23925/2318-7115.2020v41i3a6

problems described in the "SDEA Rating Manual", which includes the Glossary of Basic and Complex Structures given by ICAO's DOC 9835 and another list. However, a second cycle coding was performed as the codes needed to be refined in order to better reflect the categories and subcategories of mistakes that were found in the RFs. After coding, the errors were quantitized in order to check the frequencies of each type of grammar mistakes.

4. Results and discussion

4.1 Student pilots

Regarding student pilots, 52 types of errors were analysed. They were specifically tagged using mostly the nature of the error and the grammatical category. For instance: Wrong Word Noun (WWN), Lack of Word Pronoun (LWPn), Extra Word Article (EWA), Inflection Past Simple (InflPa) and others. Appendix A features a full list with all the types and their occurrences. In the following, we present the results of the ten most frequent ones:

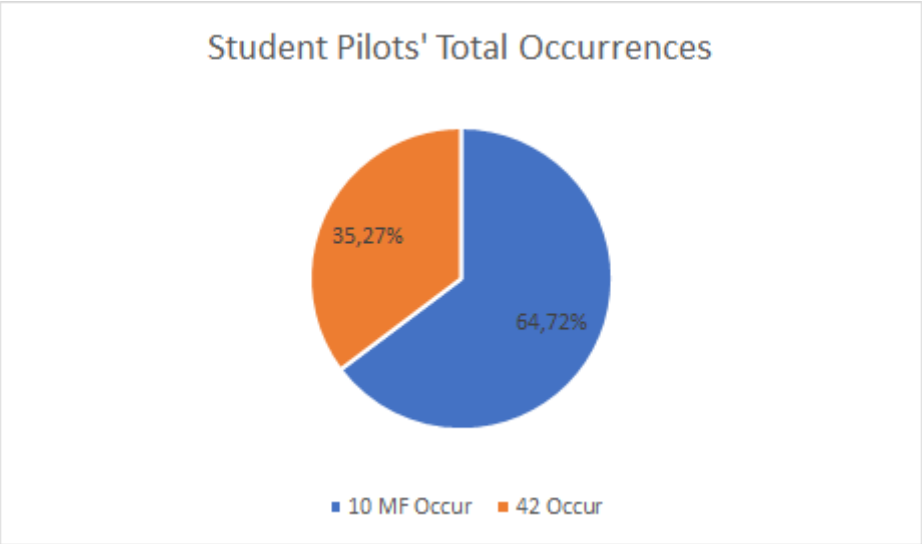
Table 4. Ten Most Frequent Structure Errors of Student Pilots at PUCRS.

	CODE	EFA I	EFA II	EFA III	EFA IV	TOTAL
1	Inflection Past (InflPa)	29 4.13%	44 7.81%	266 27.11%	51 8.61%	390 13.74%
2	Inflection 3rd P (infl3rd)	110 15.66%	72 12.78%	75 7.64%	126 21.28%	383 13.49%
3	Inflection BE (inflBE)	52 7.40%	40 7.10%	71 7.23%	30 5.06%	193 6.80%
4	Wrong Word Pronoun (WWPn)	67 9.54%	52 9.23%	30 3.05%	35 5.91%	184 6.48%
5	Plural Overuse (PlOu)	61 8.68%	50 8.88%	49 4.99%	21 3.54%	181 6.37%
6	Inflection Overuse 3rd P (InflOu3rd)	67 9.54	46 8.17%	30 3.05%	35 5.91%	178 6.27%
7	Wrong Word Preposition (WWPr)	16 2.27%	18 3.19%	27 2.75%	21 3.54%	98 3.45%
8	Wrong Word Noun (WWN)	14 1.99%	13 2.30%	37 3.77%	25 4.22%	89 3.13%
9	Inflection Overuse Past (inflOuPa)	19 2.70%	20 3.55	40 4.07%	30 5.06%	82 2.88%
10	Wrong Word Article (WWArt)	18 2.56%	29 5.15%	21 2.14%	7 1.18%	75 2.64%
	Occurrences (10MF)	453 64.52%	384 68.20%	646 65.85%	354 59.79%	1837 64.72%

The results totalled 52 types of errors. The ten most frequent ones account for 64.72% against 35.27% that represent the other 42 types, as can be seen in the pie chart below.

 DOI: 10.23925/2318-7115.2020v41i3a6

Figure 3. Student Pilots' Total Occurrences.



The ten most frequent errors of student pilots draw on the following illustrated categories:

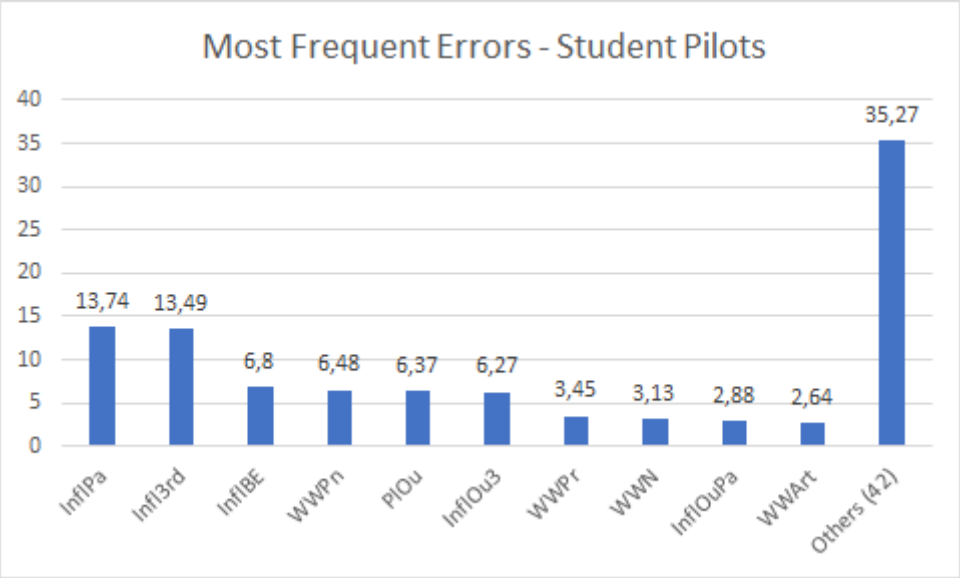
1. InflPa (Inflection Past): structural problems with tense marking in the Simple Past (affirmative, negative and interrogative sentences) , such as: *They don't had outside research, I don't found; The aircraft lose power, They just go around (past).*
2. Infl3rd (Inflection 3rd Person): marking 3rd person conjugation - affirmative, negative and interrogative sentences, as in *The plane have, The controller have to, This flight don't take-off before the other, The way have.*
3. InflBE (Inflection verb TO BE): problems with conjugation in person and tense. For instance, *Both aircraft was, The other were maintaining, The radar were, They was very calm/ flying*.
4. WWPn (Wrong Word Pronoun): this category comprehends the wrong use of a pronoun - a personal, object, relative, possessive pronoun or possessive adjective, such as *Your location/ position (the plane's); He is (airport); Airports who have; In he opinion.*
5. PlOu (Plural Overuse): use of regular plural in words that do not take it, as *peoples* (meaning persons), *feets*, *aircrafts.*
6. InflOu3 (Inflection Overuse 3rd person): excessive use of tense marking for 3rd person, as in *Don't has; Companies that goes around the world; People who has/ lives; It don't seems much*.
7. WWPr (Wrong Word Preposition): inappropriate use of a preposition. For example, *At 2016; On Australia; On 2001, In the ground;*

 DOI: 10.23925/2318-7115.2020v41i3a6

8. WWN (Wrong Word Noun): when a noun is wrongly employed in the place of a verb, an adjective or an adverb, as in *I flight in my city; For controller the situation; It make the flight more security; Will choice one plane.*
9. InflOuPa (Inflection Overuse Past): redundant marking of Simple Past, such as *I didn't went; They didn't had; He didn't said; Did it all worked?*
10. WWArt (Wrong Word Article): inaccurate use of an article, for instance: *The Delta; A old fleet; To the China; A charges.*

As for their ranking, the graph below displays a better picture of the errors that topped the occurrences.

Figure 4. Most Frequent Structure Errors of Student Pilots.



Results show errors regarding mostly inflection and use of a wrong word to be the ten most frequent out of fifty-two categories, which account for 64,72% of all the total occurrences. Inflection errors top the rank -Past, Third person and BE - InflPa, Infl3rd and InflBE, the first two with very little difference - 13,74% and 13,49%. They are followed by another three categories that also do not show a significant difference in percentage: Wrong Word Pronoun (WWPn), Plural Overuse (PlOu) and Inflection Overuse of Third person (InflOu3) average six percent. Next, the other categories are shown to be similar, ranging from three to two percent, respectively. The remaining forty-two categories account for 35.27% of the total number.

The results show that student pilots appear to have problems with it, considering an analogy with the categories Inflection Third Person Singular (Infl3rd), Inflection Overuse of Third person (InflOu3)

and Inflection Simple Present (InflSPr)[10], which suggests we could pay closer attention to this structure. In Figure 2, Simple Present appears to be the most used structure in Borowska's (2017) study. Prado (2015), as previously mentioned, put Simple Present as a frequently used structure.

Future Tenses (expressed by the modal verbs will and would) ranked as second in the same research. However, this does not seem to be a problem to student pilots, ranking in 40th and 43rd position.[11] [12] From these results, we assume Past Simple is a problem for student pilots as well, both in inflection and overuse. Interestingly, this tense did not seem to be so frequent either in Borowska (2017) or in Prado (2015).

4.2 SDEA test takers

As sometimes there were more than one grammar mistake in a single sentence, the total number of errors found in the 397 sentences was 556. It is important to emphasize that the number of mistakes was not evenly distributed among the test takers, as the number of examples examiners give vary (for example, proportionally speaking, we have more examples of test takers who were awarded levels 2 or 3 in structure than of those who were awarded 4 or 5). The 556 mistakes were coded and recorded. At the end, 15 different categories were generated. Most categories were divided into subcategories. Table 5 shows the frequencies of the structure mistakes considered to be the most serious by SDEA examiners. It is interesting to note that many of the grammar structures included in the ICAO's glossary were not represented in the samples, especially the complex ones, as suggested by Knoch (2009), Pfeiffer (2009) and Prado (2015). It is also important to point out that the categories and subcategories sometimes overlap one another, which means that the same error could fit different categories. Additionally, in some cases it would be difficult for us to determine the type of error, as the sentence allowed for different interpretations (this is because some examiners are not clear in the RFs in relation to what would be the correct structure to be used). For example, in the sentence "*the trucks for catering will removed",* it is difficult to tell whether the test taker was trying to use the passive voice with the simple past ("*were removed*") or with the future ("*will be removed*"). For this reason, in order not to manipulate the data, in cases like this, the error was not taken into consideration. Plus, some mistakes that should have been considered by the examiners to be a vocabulary problem instead of a structure one, such as

[10] Inflection Simple Present (InflSPr) refers to problems in the Simple Present that do not relate to third person marking, with occurrences like "*you not fly a lot; I have not a PCL*". It ranked in 46th, showing that student pilots' issues with this tense are related to third person conjugation.
[11] The rally for student pilots considered two separate categories for future, Future Will (InflFut) and Future Going To (InflGT).
[12] Appendix A

 DOI: 10.23925/2318-7115.2020v41i3a6

issues regarding collocation, compound nouns or use of wrong words (not prepositions or connectors), were disregarded. However, problems with word formation were accepted as a structure issue.

Table 5. Frequencies of the structure mistakes considered to be most serious by SDEA examiners.

Code (Frequencies)	**Categories and subcategories (Frequencies)**
1 Articles (51)	1.1 Wrong use of indefinite articles ("a/an") (e.g.: *a emergency*) (3) 1.2 Overuse of the definite article ("the"). (e.g.: *we lost the both systems*) (13) 1.3 Over use of "a/an"(e.g.: *a cabin pressure*) (6) 1.4 Missing "the" (e.g.: *they lost control of aileron*) (19) 1.5 Missing "a/an" (6) 1.6 Use of "the" instead of "a/an" (1) 1.7 Use of" a/an" instead of "the" (2) 1.8 Use of "one" instead of a/an (1)
2 Comparison of adjectives (15)	2.1 Comparative (e.g.: *more easy / more faster / worst than*) (8) 2.2 Superlative (e.g.: *the most easy / the most easier / the bigger airport*) (7)
3 Modal verbs (23)	3.1 "To" after modal verbs (e.g.: *you must to perform / we must to share*) (5) 3.2 Use of wrong modal (7) 3.3 Use of verb in the past after modal (e.g.: *you can lost*) (4) 3.4 No verb after modal (e.g. *the mechanic will to school*) (2) 3.5 Use of "ing" after modal (2) 3.6 Verb to be before modal (1) 3.7 Use of "s" after modal (1) 3.8 Modals + past participle to express criticism or regret (1)
4 Passive Voice (14)	4.1 Simple present (3) 4.2 Simple past (6) 4.3 Future (1) 4.4 Modals (4)
5 Verb tenses (161)	Verb tenses (general) (3) Verb to be (Total: 18) 5.1.1 Affirmative – present (1) 5.1.1.1 "Is" instead of "are" or "are" instead of "is" (7) 5.1.1.2 Missing verb to be (am, is or are) (2) 5.1.2 Negative – present (2) 5.1.3 Affirmative – past (5) 5.1.3.1 "didn't" instead of "wasn't/weren't" (1) 5.2 Present simple (1) (Total: 45) 5.2.1 Affirmative (10) 5.2.1.1 No addition of "-s" to the end of the verb after third person singular (12) 5.2.1.2 "Have" instead of "has" or "has" instead of "have" (2) 5.2.1.3 Use of verb in the past (1) 5.2.1.4 Inclusion of "s" on the verb when there is no need of "s" (3) 5.2.2 Negative (1) 5.2.2.1 "Don't" instead of "doesn't" or "Doesn't" instead of "don't" (6) 5.2.2.2 "Doesn't" + verb with "s" (2) 5.2.2.3 Use of verb to be instead of "do" (3) 5.2.2.4 No use of "do", just "not" or "no" (3) 5.2.2.5 Inclusion of "s" in the verb (1) Present continuous (Total: 18) 5.3.1 Verb without "ing" (e.g.: *we are turn left*) (13)

 DOI: 10.23925/2318-7115.2020v41i3a6

	5.3.2 No verb to be (e.g.: *I performing a missed approach*) (5) 5.4 Past simple (1) (Total: 49) 5.4.1 Affirmative (2) 5.4.1.1 Wrong use of irregular verb in the past (4) 5.4.1.2 Use of "ed" in irregular verb (3) 5.4.1.3 Did not put the verb in the past (26) Negative 5.4.2.1 "didn't" + verb in the past (7) 5.4.2.2 No use of "didn't" (3) 5.4.2.3 "Do not" + verb in the past (1) 5.4.2.4 "Do not" + verb in the present (1) 5.4.3 Use of present perfect instead of past simple (1) 5.5 Past continuous (1) (Total: 6) 5.5.1 Verb without "ing" (3) 5.5.2 No verb to be (1) 5.5.3 Verb to be not in the past (1) 5.6 Present perfect simple (1) (Total: 16) 5.6.1 Use of past simple instead of present perfect (1) 5.6.2 Wrong use of have/has (e.g.: *we has suffered / he have lost*) (4) 5.6.3 Wrong use of past participle (4) 5.6.4 Use of simple present instead of present perfect (3) 5.6.5 Use of verb to be instead of "have/has" (3) 5.7 Simple future – will (2) 5.8 Simple future – going to (2) 5.9 Past perfect (2)
6 There to be (12)	6.1 Use of have instead of there to be (5) 6.2 Use of there + singular instead of there + plural (4) 6.3 Use of verb to be instead of there to be (2) 6.4 No verb to be (1)
7 Adverbial clauses of time (1)	-
8 Infinitives and gerunds (22)	8.1 Use of infinitive instead of gerund (3) 8.2 Use of gerund instead of infinitive (2) 8.3 Use of gerund after to (5) 8.4 Use of verb in the past in the infinitive form (7) 8.5 No use of gerund after preposition (4) 8.6 Inclusion of "s" at the end of the verb in the infinitive form (e.g.: *to vectors*) (1)
9 Wrong use of past participle as an adjective (3)	* Not related to Present Perfect
10 Nouns (7)	10.1 Use of plural in uncountable nouns (3) 10.2 Wrong plural: aircrafts (1) 10.3 wrong use of few/little/much/many/a lot of (1) 10.4 Uncountable nouns with article (2)
11 Pronouns and possessive adjectives (8)	11.1 Wrong use of subject pronouns (I, you, he, she…) (4) 11.2 Wrong use of possessive adjectives (your, his, her, its…) (2) 11.3 Wrong use of reflexive pronouns (Herself, himself, themselves) (1) 11.4 Double negatives (wrong use of indefinite pronouns, e.g.: *I did not understand nothing*) (1)

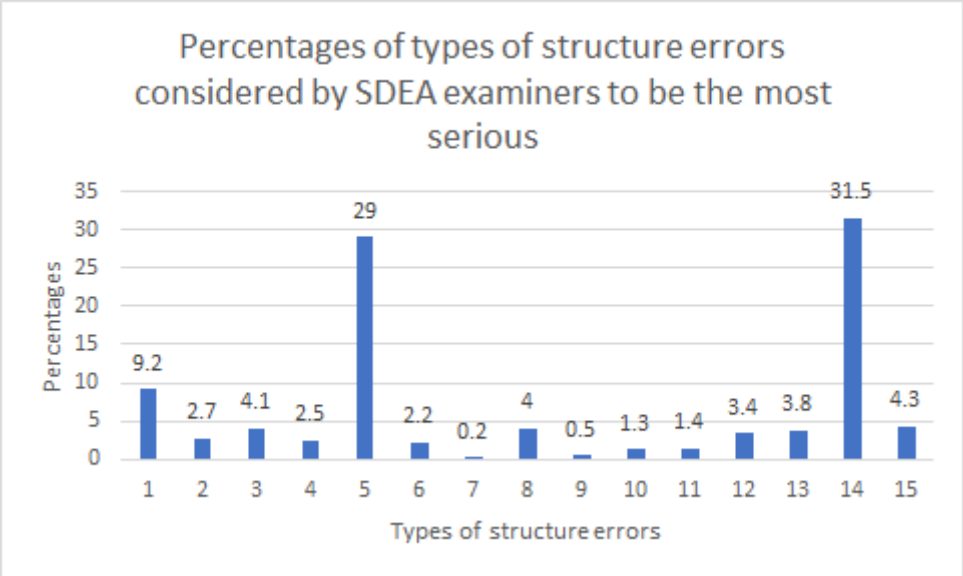
 DOI: 10.23925/2318-7115.2020v41i3a6

12 Confusion with singular and plural (19)	E.g.: *one hours, a vehicles.* Exception: There's + plural
13 Wrong word order (21)	E.g.: *I fly by myself the airplane.*
14 Addition, omission, or wrong use (175)	14.1 Addition of words (general: addition of an extra word that should not be there) (12) (Total: 40) 14.1.1 Addition of preposition (10) 14.1.2 Addition of connector (4) 14.1.3 Addition of verb (9) 14.1.3.1 Addition of auxiliary verb (2) 14.1.4 Addition of "it" to the subject (e.g..: *aviation it's safe*) (2) 14.1.5 Addition of several words (1) 14.2 Omission of words (general) (11) (Total: 110) 14.2.1 Omission of preposition (18) 14.2.2 Omission of connector (19) 14.2.3 Omission of subject (41) 14.2.4 Omission of the verb (9) 14.2.4.1 Omission of auxiliary verb (1) 14.2.5 Omission of part of object (2) 14.2.6 Omission of several words (9) Wrong use of preposition or connector (Total: 25) 14.3.1 Wrong use of preposition (e.g..: *close of volcano / over the runway - on /), I'll start for the easiest*) (20) 14.3.2 Wrong use of connector (5)
15 Word formation (24)	15.1 Use of noun instead of a verb (e.g.: *to flight*) (7) 15.2 Use of adjective instead of a noun (5) 15.3 Use of noun instead of an adjective (2) 15.4 Use of adjective instead of adverb (3) 15.5 Use of verb instead of adjective (1) 15.6 Use of adverb instead of adjective (2) 15.7 Use of verb instead of noun (3) 15.8 Use of adjective instead of a verb (1)

Table 6 shows the percentages of types of structure errors considered by SDEA examiners to be the most serious. The mistakes that were the most frequently reported in the analysed RFs belong to the categories "Addition, omission, or wrong use" and "Verb tenses". Together, the mistakes related to these two categories account for 60.5% of all mistakes. The third type of error which was most frequently reported by the SDEA examiners was related to the use of definite and indefinite articles, representing 9.2% of all errors.

 DOI: 10.23925/2318-7115.2020v41i3a6

Table 6. Percentages of types of structure errors considered by SDEA examiners to be the most serious.



In relation to the subcategories, the mistakes that were most frequently reported were the ones in the subcategories "Omission of words" (110 occurrences), "Past simple" (49 occurrences), and "Present simple" (45 occurrences). These results are similar to the ones obtained by Pacheco (2019), who, as seen, found that the most frequent structure errors made by Brazilian student pilots were related to the Simple Present and the Simple Past. As previously discussed, Borowska (2017) found out that the most frequent plain English structure used by non-native speakers in radiotelephony communications were Present Simple, followed by Future tenses, Modal verbs and Simple Past, in this order. Thus, it could be expected that the reported errors would reflect the structures that are most frequently used. However, the verb tense errors most frequently reported by SDEA examiners were related, first, to the Simple Past, and then, to the Simple Present. This does not mean that these are the mistakes that test takers make the most, but it means that these are the mistakes that the examiners considered to be the most serious. Table 7 shows the percentages of occurrences of these three subcategories.

Table 7. Percentages of occurrences of most frequently reported subcategories.

Subcategory	**Percentage**
Omission of words	19.8%
Past simple	8.8%
Present simple	8.1%

 DOI: 10.23925/2318-7115.2020v41i3a6

Within each of these three subcategories, the most frequently reported errors were omission of subject, not putting the verb in the past in affirmative sentences, and, as also indicated by Pacheco (2019), not adding "-s" to the end of the verb after third person singular. Table 8 shows the number of occurrences of these subcategories and some examples of errors.

Table 8. Number of occurrences of three main subcategories and examples.

Subcategory	**Number of occurrences**	**Examples**
Omission of subject	41	*Told him to...; Nowadays is forbidden…; Can also help the captain; Asked if we are holding short; Is not good...*
Simple past - not putting the verb in the past in affirmative sentences	26	*I leave the runway; he understand…; … and tell the flight crew to prepare for...; the helicopter lose total power; the pilot try to confirm.*
Simple present - not adding "-s" to the end of the verb after third person singular	12	*Before something wrong happen; he know that we need to land; the pilot think that he is… ; runway incursion occur when there is...*

4.3 Final discussion

Although the data were coded differently in the two parts of the study, the results reveal noteworthy information. From our assumptions while collecting data to final figures, we could detect a number of similarities evidenced by pilots. Errors made by student pilots and SDEA test takers are shown to be recurrent- that is, the subjects tended to manifest the most frequent errors more than once in their reports, which is natural when we take into account the whole language acquisition process. Additionally, it reinforces our purpose with the article: if we can spot the most frequent structures that are supposed to be a problem for pilots, we can think of exploring techniques that approach such issues in a way to tackle them in the preliminary stages of instruction and training, so that some may not become fossilized. Furthermore, the results of the present study may help to inform test development as well as to improve rater training.

The fact of not having the exact same number of subjects or the very same tagging neither impacts negatively on the results nor does it invalidate the study because the findings disclose interesting information. Despite the fact of having different coding, the data collected with training and testing purposes are shown to be similar not only when we think about types of errors, such as omission, inappropriate addition or wrong use of a word, but also when we think about grammatical categories these errors address - articles, prepositions, pronouns, etc. Student pilots' ten most frequent errors include Wrong Word Pronoun, Wrong Word Preposition, Wrong Word Article and Wrong Word Noun

and SDEA test takers' top errors reflect problems with these categories, as seen in Table 5. More specifically, SDEA test takers totalled 31.5% in Category 14 (Table 5) and student pilots totalled 929 errors - 32,73% when calculating all the errors[13] that consider omission (Lack of Word), addition (Extra Word) or Wrong Word.

Moreover, SDEA test takers' errors concerning verb tenses were the second most frequent problems (Category 5, Table 5), and student pilots showed five categories regarding inflection among the top ten problems. Simple Past and Simple Present were the two tenses in which subjects manifested the most problems. Actually, taking into account all the 52 types analysed, student pilots totalled 1.380 errors - 48.62%. Table 9, as follows, displays these results.

Table 9. Results of Pilots considering the top-ranking categories.

Category	**Student Pilots**	**SDEA test takers**
Verb Tense/ Inflection	32.73%	31.5%
Omission, Addition, Wrong Word	48.62 %	29%

Finally, these results reveal that, ultimately, the grammatical issues of pilots tend to be similar. Despite the difference in the number of subjects and in the linguistic specificities that the analysed categories may have comprised, there seems to be a tendency for pilots to develop certain grammatical problems both in their learning and professional stages. We intend to continue our work in collaboration, also with the contribution of other applied linguists, in order to better adjust what could be comprehended in the categories and to learn how we could address those issues in order to improve the pilots' language proficiency.

Conclusion

Some limitations of this study should be acknowledged. First, as it may happen in any qualitative study, the coding might have been influenced by our perspective as researchers. Another limitation refers to the fact that the data were only coded by a single coder. Having two or more coders analyse the data independently would have increased the reliability of the study. In relation to ethics, there are no major issues to be reported. Confidentiality was maintained in order to protect the privacy of the subjects.

Further research is needed in order to better investigate not only the frequencies of structure mistakes, but also how much these mistakes interfere with meaning. As Garcia (2015) pointed out,

[13] As featured in Appendix A.

"there is need for clarification of what interferes with meaning and what does not" (p. 41). It would also be important to conduct a similar study having two coders use the same coding scheme. As a matter of fact, it is our intention to keep working in collaboration and expand this study through more data and a better alignment of the categories used for error tagging. In addition, it would also be interesting to conduct some statistical analysis of the data in order to find out, for example, if there is any correlation regarding the mistakes that are most frequently made by pilots who pass the test versus pilots who fail the test. Furthermore, studies with air traffic controllers and speakers of other languages would be very useful to compare the results found. Pronunciation is, alternatively, another basic skill placed on the base of the pyramid that would be worth investigating.

To conclude, we agree with Borowska (2017, p. 217) when she says that "our task is to work in improving aeronautical communications as much as possible in order to enhance aviation safety and to help prevent others from making the same mistakes", because errors probably will not disappear on their own. Although structure is not supposed to be the most important skill in language for specific purpose communication scenarios, it should not be underestimated, especially in a multicultural context in which NNS outnumber NS and certain standards are crucial to be maintained for mutual understanding. We are not advocating in favor of a rigorous structural approach in a communication context in which the negotiation of meaning is crucial and timely. However, as language specialists working in aviation, we should try to offer tools that will better enable subjects to be proficient in basic skills, such as structure, in order for them to be capable of developing the other skills in a satisfactory proficient level. Maybe, in an urge to have "proficient pilots", effective training is not being provided. Instead, training might be focusing solely on the application of technical lexical items (which pilots naturally have to master) to communicative functions counting on contextual clues.

The subjects in this study showed a high number of errors of structure, which means that Brazilian pilots have specific issues regarding this skill that should be better addressed. After all, as seen, structure seems to be the skill in which SDEA test takers have been failing the most. Curriculum designers should be mindful of those issues and take into account structures that are shown to be frequently used in aviation communications and a problem for pilots.

We hope that, with the results presented in this study, training practices can be improved by targeting major problems that Brazilian pilots face regarding structure. As a consequence of more suitable training, they should be able to perform better in the SDEA.

References

 DOI: 10.23925/2318-7115.2020v41i3a6

BIESWANGER, M. 2016. Aviation English: Two distinct specialised registers? In: SCHUBERT, C.; C, SANCHEZ-STOCKHAMMER, (Eds.) Variational Text Linguistics**:** Revisiting Register in English. Berlin: DeGruyter. p. 67-85.
BOROWSKA, A. 2017. Avialinguistics: The study of language for aviation purposes. Peter Lang Edition, Frankfurt am Main.
ESTIVAL, D.; C, FARRIS; B, MOLESWORTH. 2016. Aviation English: A lingua franca for pilots and air traffic controllers. New York: Routledge.
GARCIA, A.C.M. 2015. What do ICAO language proficiency test developers and raters have to say about the ICAO language proficiency requirements 12 years after their publication? A qualitative study exploring experienced professionals' opinions (Unpublished master's thesis). Lancaster University, Lancaster, UK.
INTERNATIONAL CIVIL AVIATION ORGANIZATION/ICAO. 2010. Manual on the Implementation of ICAO Language Proficiency Requirements, 2nd ed. (Doc. 9835). Montreal, Canada: Author.
KNOCH, U. 2009. Collaborating with ESP stakeholders in rating scale validation: the case of the ICAO rating scale. Spaan Fellow Working Papers in Second or Foreign Language Assessment 7: 21-46.
MATHEWS, E. 2012. Language Gap: In: Flight Safety Foundation, Aerosafety World, 22-27.
PACHECO, A. 2010. A aquisição de morfemas em inglês como L2: Uma análise dos padrões evolutivos através do BELC (Brazilian English Learner Corpus). PhD Dissertation, UFRGS. Available at <https://lume.ufrgs.br/handle/10183/27960>. Access: 10 jan. 2020.
_____. 2019. Perspectives and Implications of language issues of non-native speakers: a more specialized analysis of ab-initio plots learner language. The Proceedings of the International Civil Aviation English association (2019) Conference. Embry-Riddle Aeronautical University Scholarly Commons, p. 118-138. Available at <https://commons.erau.edu/cgi/viewcontent.cgi?article=1160&context=icaea-workshop>. Access: 10 jan. 2020.
PFEIFFER, A. 2009. Inter-rater reliability in an aviation speaking test. Unpublished Masters dissertation. Lancaster University, Lancaster, UK.
PRADO, M.C.A. 2015. Levantamento de padrões léxico-gramaticais do inglês para aviação: um estudo vetorado pela Linguística de Corpus. [Survey on the lexico-grammatical patterns in aviation English: a study conducted by corpus linguistics]. Master's Dissertation, Universidade de São Paulo, São Paulo, Brazil. Available at < https://www.teses.usp.br/teses/disponiveis/8/8147/tde-16062015-131340/pt-br.php>. Access: 10 jan 2020.
SALDAÑA, J. 2013. The coding manual for qualitative researchers. 2nd ed. London, UK: Sage.
SANDELOWSKI,M.; C.,VOILS and G., KNAFL. 2009. On Quantitizing. J Mix Methods Res. July 1; 3(3): 208–222. doi:10.1177/1558689809334210.

Aline Pacheco is an Associate Professor at the Pontifical Catholic University of Rio Grande do Sul (PUCRS), in Brazil. She holds a PhD and a Master's Degree in Linguistics. Both studies focused on the acquisition of English as a Foreign Language. She has been teaching English since 1993. Currently, she is responsible for the Aviation English courses in the Aeronautical Science Program at PUCRS. Her research interests include Language as a Human Factor in Aviation, Corpus Linguistics and English for Specific Purposes.

Angela Carolina de Moraes Garcia is in her first year of the PhD student in Applied Linguistics and Discourse Studies at Carleton University. She has been working as a language test developer and raters' trainer at the Brazilian Civil Aviation National Agency (ANAC) since January 2008. Angela holds a Master's degree in Language Testing from Lancaster University. Her research interests are:

English for Specific Purposes and Language Testing, especially aeronautical English testing, validity, reliability, construct definition and rating scale development.

Appendix A. Total Types of Errors and Occurrences (Student Pilots)

	CODE	***AEI***	***AEII***	***AEIII***	***AEIV***	***TOTAL***
1	Inflection Past (InflPa)	29	44	266	51	390
2	Inflection 3rd P (Infl3rdP)	110	72	75	126	383
3	Inflection BE (InflBE)	52	40	71	30	193
4	Wrong Word Pronoun (WWPn)	67	52	30	35	184
5	Plural Overuse (PlOu)	61	50	49	21	181
6	Inflection Overuse 3rd P (InflOu3rd)	67	46	30	35	178
7	Wrong Word Preposition (WWPr)	16	18	27	21	98
8	Wrong Word Noun (WWN)	14	13	37	25	89
9	Inflection Overuse Past (InflOuPa)	19	20	40	3	82
10	Wrong Word Article (WWArt)	18	29	21	7	75
11	Wrong Word Adverb (WWAdv)	12	18	15	26	71
12	Infinitive TO (InfTO)	20	13	29	6	68
13	Wrong Word Verb Explet. (WWVE)	30	13	17	7	67
14	Wrong Word Verb (WWV)	6	4	30	18	58
15	Wrong Word Adjective (WWAdj)	11	11	14	16	52
16	Inflection Overgeneral. (InflOu)	9	12	19	6	46
17	Wrong Word Verb Form (WWVf)	3	6	16	14	45
18	Lack of Word Pronoun (LWPn)	11	8	18	6	43
19	Inflection Overuse BE (InflOuBE)	11	8	15	14	38
20	Extra Word Article (EXArt)	11	3	8	11	33
21	Comparative (Comp)	8	8	8	9	33
22	Lack of Word Verb (LWV)	3	6	11	13	33
23	Plural Adjective (PlAdj)	12	4	8	8	32
24	Infinitive Coordination (InfCoord)	10	2	14	6	32
25	Lack of Gerund (LGer)	4	3	16	8	31
26	Lack of Word Pronoun (LWPn)	4	2	10	11	27
27	Wrong Word Conjunction (WWC)	7	5	12	1	25
28	Comparative Overuse (CompOu)	2	6	4	9	21
29	Extra Word Preposition (EWPr)	1	3	6	10	20
30	Inflection Auxiliary (InflAux)	1	0	15	3	19
31	Superlative (Superl)	7	2	4	6	19
32	Inflection Pres Cont (InflPC)	2	4	4	8	18
33	Passive (Pass)	4	5	2	7	18
34	Infinitive Overuse (InfOu)	2	3	6	6	17
35	Negative Infinitive (NegInf)	3	3	4	6	16
36	Inflection Overuse ING (InflOuING)	4	0	4	5	13
37	Word Order Adjective (WOAdj)	6	2	4	1	13
38	Inflection Conditional (InflCond)	2	2	4	5	13
39	Superlative Overuse (SuperlOu)	6	2	2	0	10
40	Inflection Future (inflFut)	0	3	1	6	10
41	Question Struct. Overuse (QSOu)	1	1	3	5	10
42	Inflection Pres Perfect (InflPP)	4	1	4	0	9

 DOI: 10.23925/2318-7115.2020v41i3a6

43	Inflection Going To (InflGT)	4	1	2	1	8
44	Lack of Word Article (LWArt)	2	1	3	1	7
45	UsedTO	2	0	4	1	7
46	Inflection Simple Present (InflPrS)	1	0	2	3	6
47	Inflection Past Perfect (InflPaP)	00	0	2	0	2
48	Wrong Word Plural (WWPl)	0	1	1	0	2
49	Inflection Overuse Auxil. (InflOuA)	0	1	0	0	1
50	Inflection Questions (InflQ)	1	0	0	0	1
51	Misplaced Inflection (MisplInfl)	0	0	1	0	1

DOI: 10.23925/2318-7115.2020v41i3a6