



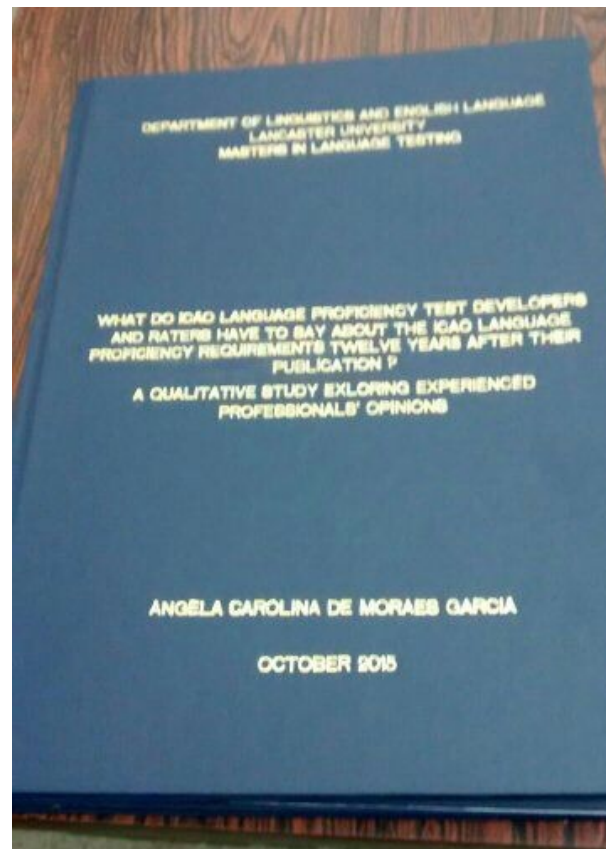
II Seminário do Grupo de Estudos em Inglês Aeronáutico

**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**

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Objetivo

- ➔ Apresentar um resumo da minha pesquisa de mestrado no II Seminário do GEIA.



- ➔ Introduction
- ➔ Literature review
- ➔ Research question
- ➔ Methodology
- ➔ Participants
- ➔ Results
- ➔ Discussion of results
- ➔ Conclusions and implications for further research

The introduction chapter includes:

- What is ICAO and why/when they adopted the SARPs concerning the LPRs.
- Information about my work and the implementation of the ICAO LPRs in Brazil.
- A general explanation of the dissertation topic and the reason why I decided to research this topic.
- The background to the ICAO LPRs.



- Characterizing pilot/ATC radiotelephony English as English for lingua franca (ELF)
- Plain English versus phraseology
- Lack of clarity in relation to the test construct
- Not taking into consideration technical knowledge of operations in the language proficiency test
- Issues related to reliability
- Issues related to the ICAO rating scale



- ➔ What do recognized ICAO test developers and experienced raters perceive as the strengths and weaknesses of the ICAO language proficiency requirements?



- Overall research design
 - Primary qualitative research
- Type of data and data collection methods
 - Rich and complex data
 - One-on-one interviews
- Methods of data analysis
 - Thematic analysis

Methodology



- ➔ 6 participants:
 - ➔ Ages: 39, 40, 46, 53, 54, 69.
 - ➔ Experience with the ICAO LPR: 8, 9, 10, 11, 11 and 15 years.
 - ➔ 5 experienced test developers and raters and 1 rater, from six different countries, 3 continents;
 - ➔ 5 ELEs and 1 SME;
 - ➔ 3 hold Masters in Applied Linguistics and 2 are doing their PhD;
 - ➔ 4 are or have been involved with tests that are or have been endorsed by ICAO
 - ➔ 1 was part of the PRICESG

- ➔ 2 have coordinated the ICAO Rated Speech Samples Project and 2 have participated in it as raters
- ➔ 1 is na ICAO test evaluator
- ➔ 4 are ICAEA board members
- ➔ 4 have been engaged in organizing and lecturing at important international conferences.
- ➔ 2 have published articles in scientific journals;
- ➔ 2 have been involved with regulation writing for Civil Aviation Authorities.
- ➔ 3 have experience with training pilots and controllers;
- ➔ 1 is a reputable author of training material.

1) Participants' opinions about the main features of the ICAO policy

	Description of the policy feature
1	The target language use domain is the English used in communications between pilots and ATCs.
2	The tests should be designed to assess speaking and listening
3	The purpose of the test is to assess plain language proficiency in an operational aviation context.
4	Phraseology should be tested separately from plain language.
5	Responses containing elements of ICAO phraseology should not be rated with regard to their procedural appropriateness or technical correctness.
6	Technical knowledge of operations should not be evaluated.
7	Operational level 4 is enough for safe operations.
8	Those demonstrating language proficiency at the operational level 4 should be evaluated at least once every three years.
9	Those demonstrating language proficiency at the extended level 5 should be evaluated at least once every six years.
10	Expert Level 6 candidates do not need to be tested again.
11	A candidate who is tentatively considered to be a level 6 speaker of the language may be evaluated through informal assessment (for example, by a flight examiner or licensing authority).
12	The six categories that need to be assessed are: pronunciation, structure, vocabulary, fluency, comprehension and interactions.
13	A candidate's final level should be the lowest level in any of the categories.

	A	B	C	D	E	F
1	Agrees	Disagrees	Agrees	Disagrees	There should be a test whenever English is required	There should be a test for everything that is RT
2	Mostly agrees	Disagrees	Agrees	Mostly agrees	Disagrees	Agrees for the time being
3	Agrees	Disagrees	Disagrees	Agrees	Agrees	Agrees
4	Agrees	Unsure	Disagrees	Agrees	Agrees	Agrees
5	Agrees	Agrees in part	Disagrees	Agrees	Disagrees	Agrees
6	Agrees	Agrees	Disagrees	Agrees	Agrees	Agrees
7	Unsure	Disagrees	Unsure	Disagrees	Agrees	Agrees
8	Agrees	Disagrees	Unsure	Disagrees	Disagrees	Agrees
9	Agrees	Disagrees	Unsure	Disagrees	Disagrees	Disagrees
10	Disagrees	Disagrees	Disagrees	Disagrees	Disagrees	Disagrees
11	Disagrees	Disagrees	Disagrees	Disagrees	Disagrees	Disagrees
12	Agrees	Mostly agrees	Mostly agrees	Agrees	Agrees	Mostly agrees
13	Agrees	Agrees	Agrees	Agrees	Agrees	Agrees

2) Participants' opinions about the strengths and weaknesses in the assessment criteria

→ Pronunciation

Strength	Weaknesses
Focus on comprehensibility	Focus on how much pronunciation is influenced by the first language
	Use of adverbs of frequency as a measure to assess how much a candidate's pronunciation interferes with the ease of understanding

Pronunciation

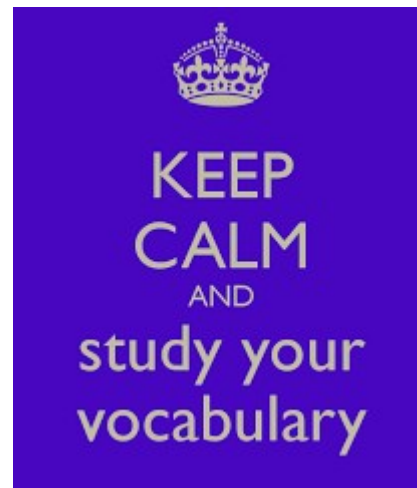


→ Structure

2) Participants' opinions about the strengths and weaknesses in the assessment criteria

→ Vocabulary

Strength	Weaknesses
Reference to the ability to paraphrase	Reference to idiomatic vocabulary
	Reference to sensitivity to register



2) Participants' opinions about the strengths and weaknesses in the assessment criteria

→ Fluency

Weakness

Confusion regarding the understanding of the explanation about the ICAO recommended rate of 100 words per minute



2) Participants' opinions about the strengths and weaknesses in the assessment criteria

→ Comprehension

Strength
Reference to comprehension of cultural subtleties



2) Participants' opinions about the strengths and weaknesses in the assessment criteria

✈ Interactions

Strength	Weaknesses
Inclusion of ability to check, confirm and clarify	Reference to sensitivity to non-verbal cues
	Level 6 descriptors seem weaker than level 5's



3) Recurring/relevant themes related to the ICAO LPRs

	Themes		Sub-themes
4.3.1	Contradictions in the policy	4.3.1.1	Face-to-face communications being included in the holistic descriptors
		4.3.1.2	Policy targeting non-native speakers
4.3.2	Policy does not fit the TLU		
4.3.3	The need to test level 6 candidates' ability to communicate effectively		
4.3.4	The importance of adhering to standardized phraseology		
4.3.5	Participants' opinions about what rating scale categories they consider to be the most and least important		
4.3.6	Rating challenges		
4.3.7	Terminologies used in the rating scale are sometimes confusing		
4.3.8	The existence of very bad tests in the market and the need for ICAO to take more responsibility towards the LPRs		

→ Contradictions in the policy



→ Face-to-face communications being included in the holistic descriptors

Participant C: it “often leads to confusion over what we are testing and how we are testing it (...) This dilutes the message that we are testing English for a very, very specific purpose, for safe communications. I think it confuses test developers, authorities and test takers. It’s not uncommon for pilots to say why are we doing this? I never do this as part of my job”.

Participant A: “I sometimes ask myself, go back and think what was our intention when we prepared these holistic descriptors, but obviously I was swiped by the academics, the linguists who felt that there was all that value in a face-to-face communication”.

✈ Policy targeting non-native speakers

ICAO: “the ICAO language proficiency requirements apply to native and non-native speakers alike” (ICAO, 2010, 5-4).

Participant B: “when they don’t require the native-speakers to be formally assessed, they are considering that if they are native speakers, they know how to deal with any problems in radiotelephony communications. But we know that this is not true. (...) So not only native speakers need to be tested, but the test should include skills and competences that they need in order to communicate with non-native speakers of the language. For example, choice of vocab, rate of speech, strategies to accommodate or to clarify things, to be aware of the problems and of the difficulties of the non-native speakers. They also need to be tested in a number of things that are not included in the rating scale. So when you ask me about retesting level 6, first they need to be tested and tested in the correct things, in the correct skills and competencies. And then, of course, they need to be retested. It is not a matter of knowing the language. It is a matter of knowing how to use the language in this context, how to interact appropriately”.

➔ **Policy does not fit the TLU**



- ➔ Relevant features of the TLU were not taken into consideration whereas irrelevant skills were included.

Participant B: “there are some things that are not being taken into account, the strategies, the cultural competence, some authors call it interactional competence. That is necessary (...) so relevant for safety (...) This context is very complex, it involves a lot of things, not only language. All competences are necessary and I believe they are all part of the language use domain”.

Skills that were pointed out as probably irrelevant to the TLU: the assessment of idiomatic vocabulary usage, sensitivity to register, sensitivity to non-verbal cues, use of complex structures, use of discourse markers and connectors, and unfamiliar vocabulary.

Participant C: idiomatic vocabulary “has got no place in radiotelephony communications. It doesn’t necessarily identify strong users from weaker users. It has a deleterious effect on safety and it shouldn’t be there, it has absolutely no place in this rating scale”.

Participant B: “the context here is unique, you don’t change the context, so the thing about being sensitive or being flexible to register does not make much sense”.

Participant C: “we are talking about one register, and that’s the ability to communicate on the radio. You don’t have multiple registers on the radio. It’s short, brief, concise, to the point, safety operational related language use. There is no room for different registers in that context, so it is nonsense to include it in the scale”.



- ➔ **The need to test level 6 candidates' ability to communicate effectively**

Participant F: “at level 6 it’s not so much about your language proficiency, but about your communicative ability, and the communicative ability is something that both native and non-native speakers have to learn, probably even more so the native speakers because native speakers rarely think about their language”.



Participant B: “many attitudes, many different kinds of behaviour on the radio are influenced by the culture, not only by their national culture, but also by their professional culture, so pilots perform differently from controllers. They have this difference. So if nobody takes this into account, we will have a problem”.

➔ The importance of adhering to standardized phraseology

Participant A: “they want to speak English, they want to say, ‘listen to me, my English is very good’. This means that from a professional point of view the phraseology is going down and people want to use more plain language (...) People want to show how well they can use the language and that’s the danger now, people trying to be too clever with some of the words and phrases they have”.



→ Participants' opinions about what rating scale categories they consider to be the most and the least important

P	Pronunciation		Structure		Vocabulary		Fluency		Comprehension		Interactions	
	R	W	R	W	R	W	R	W	R	W	R	W
A	1	6	2	3	2	3	2	3	2	3	2	3
B	3	4	4	2	4	2	4	2	2	5	1	6
C	2	4.5	5	1	3	3	4	2	1	6	2	4.5
D	1	5	1	5	1	5	3	1	2	2.5	2	2.5
E	1	5.5	1	5.5	2	2.5	2	2.5	2	2.5	2	2.5
F	5	1	1	5.5	1	5.5	4	2	2	4	3	3
Sum of weights		26		22		21		12.5		23		21.5
Final rank		1		3		5		6		2		4

Note: P = Participant; R= Rank; W=Weight

The weights were established as follows: 6 points were given to the category ranked first, 5 for the second and so on until the last place, which got 1 point. In case of draws, an average was calculated.

For example: participant E ranked pronunciation and structure first, and the rest second. Thus:

$6+5=11/2=5.5$ for pronunciation and structure, and $4+3+2+1=10/4=2.5$ for the other categories.

➔ Rating challenges

➔ Low inter-rater reliability



Participant D: “because the rating scale is not very clear and we may have different interpretations”.

➔ Difficulty to rate pronunciation

Participant F: “these are subjective value judgments. What I perceive as being ‘rarely’ may not be the same thing you think is rarely”.

Participant E suggested raters should be conscious about how much raters’ familiarity with the candidates’ accent can affect their rating, and they need to listen to their candidates consciously.

➔ Difficulty to separate the categories

- ➔ Terminologies used in the rating scale are sometimes confusing
 - ➔ Scale is overwordy
 - It talks about “common, concrete and work-related” topics, in the descriptors for vocabulary and comprehension, “familiar” topics in vocabulary, and “predictable situations” in structure and interactions, “unusual or unexpected situations” in structure, “linguistic or situational complication” in comprehension, and “unexpected turn of events” in interactions.
 - Participant C: “situational complications and linguistic complications co-occur, so they happen at the same time, one doesn’t happen separately from the other”.
 - The use of different terms to describe similar or closely related concepts can be confusing.



→ The existence of bad quality tests in the market and the need for ICAO to take more responsibility towards the LPRs

→ Some tests consist of mostly phraseology; at some testing providers it is possible “to buy” a level, and; some tests have items that are too technical.

Participant F: “there are still a lot of very bad tests out there. Really, really dangerous tests, unprofessional tests, unscientific tests, and tests that simply don’t work”.

“There was this big meeting in Montreal last year or two years ago which was quite funny because ICAO representatives were sitting there and they were saying “our aim is to work ourselves out of the job. The language proficiency requirements have to go into implementation now. It is your job to implement this”. It became quite clear at that meeting that this is not going to happen. ICAO still has a very long way to go with this”.



- ➔ **Most results from the studies discussed in chapter 2 were upheld by this research.**

They were: criticism regarding the policy targeting on non-native speakers; the need to research the nature of aviation English; the importance of adhering to phraseology; the need to define the test construct better; the fact that the policy does not reflect the TLU domain; the need to train and assess interactional competence (including awareness of intercultural factors); the need for rating scale validation work; SME raters have difficulty in using the rating scale; the need to investigate if level 4 is enough for safe international flying; the difficulty to separate the categories; the importance of standardizing the approach in each testing context; the need to revise the rating scale; criticism towards the glossary of basic and complex structures; the need to clarify some of the terminologies used in the scale; how much the assessment of pronunciation depends on the background of the rater; and the need for ICAO to take a more active role in the implementations of the requirements.

- ➔ Most and least important categories:
 - ➔ Pronunciation: very important – upholds both Kim and Elder (2009)'s and Knoch (2009)'s results.
 - ➔ Fluency: not very important - upholds Kim and Elder's results, but not Knoch's.
 - ➔ Structure: fairly important – different from Kim and Elder's and Knoch's findings.
- ➔ Disregarding technical knowledge of operations
 - ➔ SME raters should be trained to assess language ability without being negatively influenced by candidates' lack of background knowledge. However, as argued by participant C, it is undeniable that there is an intimate link between the assessment of background knowledge and the assessment of language proficiency in this context (Douglas, 2014; Emery, 2014; Knoch, 2009).

✈ Main conclusions:

- ✈ The importance of testing standardized phraseology
- ✈ The intervals of reassessment need to be researched and redefined:

Participant C: research needs to investigate “how closely the policy aligns with actual language decay” as this kind of decision must “be borne out by evidence”.

- Level 6 candidates should be reassessed.

- ✈ Native or native-like speakers need to be formally assessed.
- ✈ The rating criteria need to be revised to better reflect the TLU domain.
- ✈ The importance of better understanding the nature of pilots/ATC’s communications.



	Should be maintained	Should be deleted	Should be changed	Should be researched
Pronunciation	Focus on comprehensibility*	Any reference to influence by the first language* The part “between two non-native speakers of English” should be deleted from the explanation “pronunciation plays the critical role in aiding comprehension between two non-native speakers of English”*	The interference with ease of understanding should not be differentiated only in terms of frequency*	
Structure	Focus on interference with meaning	Reference to complex structures, as pilots and ATCs should not use complex structures*		What aspects interfere with meaning*
Vocabulary	Reference to ability to paraphrase	Reference to idiomatic vocabulary* Reference to sensitivity to register* Reference to unfamiliar topics*		

	Should be maintained	Should be deleted	Should be changed	Should be researched
Fluency		Reference to discourse markers and connectors*		Impact of fluency on safety*
		Reference to native-like fluency*		Recommended rate of 100 words per minute
				Importance of varying speech flow for stylistic device*
Comprehension	Reference to comprehension of cultural subtleties, which should be included in levels 4 and 5*			Importance of ability to “read between the lines”
				How to assess comprehension of cultural subtleties*
				How to rate accents from listening tasks in terms of how “sufficiently intelligible” they are*
Interactions	Reference to ability to check, confirm and clarify, which should be included in levels 5 and 6*	Reference to sensitivity to non-verbal cues*	Levels 5 and 6 descriptors should be revised, as level 6 seems weaker than level 5*	

Conclusions and implications for future research

- ➔ Limitations of the study
- ➔ Ethical issues
- ➔ Suggestions for further research



Ethics
Ethics in business
moral principles
rules and regulation
of right conduct rec
values that guide t



Conclusions and implications for future research

As argued by participant A, with the implementation of the ICAO LPRs “the level of English in general terms has come up considerably in communication”, but “it will never be perfect”. Although it will never be perfect, the more we work on developing professional standards, the more we improve safety. As seen in the previous section, there is still a lot to be discussed. As argued by Read and Knoch (2009), “the whole topic of oral communication in the aviation context is likely to engage the attention of language testers and other applied linguists for some time to come” (p. 21.10). Nevertheless, I urge ICAO to consider the results of this and other studies and to take actions towards the establishment of a group to revise the LPRs. As argued by two participants, ICAO will only revise the LPRs if a safety case is built. As participant C argued, “having an unreliable scale is enough of a safety case”. My overall conclusion is that, although the ICAO LPRs have been a remarkable advance, twelve years have passed and the time has come to revise them. Although it is never going to be perfect, the policy can and should be improved.

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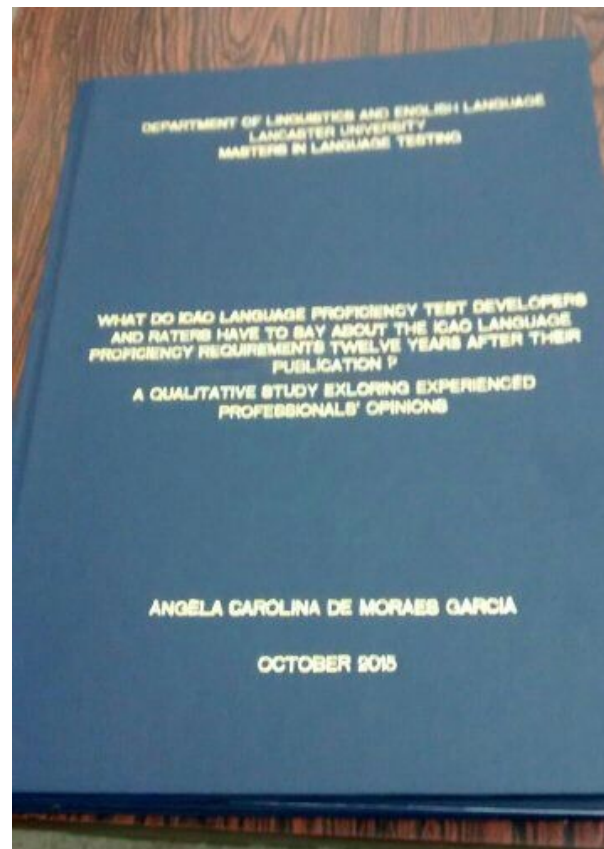
➔ The dissertation is fully available on:

http://www.icaea-aero.org/wp-content/uploads/2015/10/Masters-Dissertation_Angela-Garcia_28052015.pdf

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- ➔ Discussion of results
- ➔ Conclusions and implications for further research

As Alderson, Clapham, and Wall (1995) argued, test content, administration, training and marking need to be a monitored ongoing process, so that they “can be modified and improved in the light of their performance and of research and feedback” (p. 218).



Agência Nacional de Aviação Civil - Brasil

**Regulação
Fiscalização
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Livre concorrência**





✈ Perguntas?



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