

Writing scientific articles like a native English speaker: top ten tips for Portuguese speakers

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Can you identify a single colleague who has not had a manuscript returned with the comment “needs to be reviewed by a native English speaker”? Many researchers receive this response even after translation or revision by an official translator or a native English-speaking coauthor. Over the past four years, while conducting my doctoral, and now my postdoctoral, work here in Brazil, I have been asked to both translate and help revise numerous manuscripts for my fellow Brazilian researchers. However, despite being a native English speaker and a researcher, I have found these tasks to be quite stressful at times. The truth is, just like it is one thing to write in Portuguese and another to write *well* in Portuguese, the same applies to writing well in English. Furthermore, not every native English speaker who writes well in English can write well for the scientific literature. Scientific English writing has its own style and rhythm, such as the use of passive voice. Passive voice is considered poor English in most forms of writing (news, novels, blogs, etc.) outside of science. The most recent version of Microsoft Office Word will even highlight passive voice as poor grammar and ask you if you want to rephrase. However, the use of passive voice is acceptable and even encouraged in some scientific writing.

Although you would expect revising an already translated paper would take less time than translating an entire manuscript, I eventually came to prefer translation. Revisions tend to take me twice as long. Online translators may be partly to blame for this phenomenon. Not only did I spend hours being frustrated by confusing phrases resulting from simple mistakes, but I also spent the majority of my time fixing the *same* mistakes over and over again.

For this reason, I decided to assemble a compilation of the 10 most common “errors” made by native Portuguese speakers when writing scientific papers in English. I put “errors” in quotes because many of the following tips are just that: tips, or *dicas*. They do not always refer to incorrect English, but rather to poor English, and they are not

necessarily absolute rules. Most of these are common mistakes or poor writing habits that affect even native English speakers, so correcting them before submitting your manuscript can give you an advantage with the reviewers. It may even help you to avoid the dreaded “needs to be reviewed by a native English speaker”.

1. Avoid beginning sentences with “It is...”

In Portuguese, phrases that are meant to give emphasis commonly begin as:

“É importante...”, “Também é muito comum...”,
“Há pouca atenção...”

Many people directly translate these phrases as:

“It is important...”, “Also, it is very common...”,
“There is little attention...”

Although these sentences are grammatically correct, they are weak and somewhat juvenile in structure (“The book is on the table”). One or two per section may be fine, but repeatedly using this sentence structure can diminish the perceived maturity of your work.

These phrases can almost always be strengthened by rephrasing (or even directly reversing):

Example 1:

Portuguese: “É importante destacar os trabalhos mais recentes que...”

Weak English: “It is important to highlight the most recent works that...”

Strong English: “The most recent works that (...) are important to highlight.”

Example 2:

Portuguese: “Há pouca atenção dada ao evento.”

Weak English: “There is little attention given to the event.”

Strong English: “Little attention is given to the event.”

2. Learn when to use “the”; try to remove it from the beginning of the sentence and to only include it when referring to specific events/objects/people.

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In Portuguese, a phrase begins with “O”, “Os”, “A” or “As” when starting a sentence with a subject:

“As células foram plaqueadas...”

Which means the English translation would be:

“The cells were plated...”

Specifically for scientific writing, “the” can be removed to sound more professional.

“Cells were plated...”

However, you should add “the” to a phrase when it refers to specific people, places, events or populations. These types of errors usually result from incorrect usage of “de”, “da” or “do” in Portuguese, so the usage of “the” in the phrase here would depend greatly on the context of the paragraph:

“...que ocasionou grande fluxo de populações humanas para a região.” (referring to a specific event in time)

“...which caused large influx of human populations to the region.”

“...which caused **the** large influx of human populations to the region.”

3. Only capitalize subjects if they refer to the formal name of a place/department/title.

The most common mistake is “state”. This word is only capitalized when it comes after a state’s name as part of its formal title.

“O Departamento de Pediatria da UFF é localizado no Estado do Rio de Janeiro.”

Because this phrase is referring to the specific formal name of a pediatrics department, and if we keep the state in front of Rio de Janeiro, the capitalization should be:

“The Department of Pediatrics of UFF (FORMAL) is located in the state (INFORMAL) of Rio de Janeiro.”

However, you may sometimes refer to the place where you conducted a study by the type of location/department/clinic, rather than by its formal name:

“O estudo foi realizado no Hospital Universitário da Universidade Federal do Rio de Janeiro no Estado do Rio de Janeiro. O Hospital da Universidade atende mais de 100 pacientes por dia.”

In this case, you do not need to capitalize the department/university in the second phrase because they are not the formal titles of the hospital and the university.

Additionally, if you place “state” after “Rio de Janeiro”, it can now be capitalized because it is part of the title:

“The study was conducted at the University Hospital of the Federal University of Rio de Janeiro (FORMAL) in Rio de Janeiro State. The hospital (INFORMAL) of the university (INFORMAL) attends more than 100 patients per day.”

Another common mistake occurs when referring to directions or regions, such as “north” or “northern”. Capitalize “north”, “south”, “eastern”, “northwest” and related terms when they refer to specific region names or to people who live in these regions. For example:

“A maioria das amostras foram coletadas do Centro-Oeste de Brasil.”

“Majority of samples were collected from Central West (or Midwest) Brazil.”

Do not capitalize these words if they refer to the *general* direction or location:

“Majority of samples were collected from the central-western region of Brazil.”

4. Remove “that”!

This is a very common style issue made by native English speakers and is a quick way to not only write in English but also to write *well* in English.

“That” should only be used at the beginning of a dependent clause or when describing a subject/noun:

“Os resultados mostraram que muitas pessoas gostam de frutas.”

Directly translated, Portuguese speakers normally feel more comfortable leaving the word “that” in the sentence. I have even had colleagues add “that” after I had removed it.

“The results showed that many people like fruits.”

If you remove the “that”, the meaning of the phrase does not change, and the phrase is not broken by a breath when you read the sentence aloud:

“The results showed many people like fruits.”

Read both aloud. Can you hear how “that” can break up a sentence and not flow as nicely?

However, you do need “that” in other situations:

“Os resultados **que** foram encontrados nesse estudo mostraram que muitas pessoas gostam de frutas.”

“The results **that** were found in this study showed many people like fruits.”



Here are some words that are frequently used in the scientific literature that commonly do not need to be followed by "that":

Suggest or suggested (sugere que ou sugerido que)

Observed (observamos que ou foi observado que)

Found or was found (encontramos que ou foi encontrado que)

Show or shown (mostramos que ou foi mostrado que)

Is important (é importante que)

Highlight (destacamos que)

5. Attempt to place adjectives, including possessive adjectives, in front of nouns when possible (adjective-noun rather than noun-"of"-adjective). You may need to remove the "s" from a plural adjective.

"Caraterísticas do programa"

"Program characteristics"

"Prontuário do paciente"

"Patient chart"

"Prontuários dos pacientes"

"Patient charts" or "Patients' charts"

Here, you have two choices. If you are using "patient" to describe the *type* of chart, then you do not need the "s" for "patient". Even though the subject is plural, such adjectives in English, are not plural. However, if you are using "patients" as a possessive adjective (the charts *belonged to* the patients), then you can keep the "s", but you must put an apostrophe before or after the "s". If there is one patient, then the phrase should be "patient's charts"; if there is more than one patient, then the phrase should be "patients' charts".

There are a few common phrases in science that are normally written as noun-"of"-adjective in English. For example:

"Número de casos" should remain as "number of cases", and not "case number".

"Departamento de Imunologia" can stay as "Department of Immunology".

An extra note on the usage of "of": here is another very common mistake:

"Em 2010, houve 8.8 milhões de casos dessa doença no mundo."

Incorrect: "In 2010, there were 8.8 millions of new cases of this disease around the world."

Incorrect: "In 2010, there were 8.8 millions new cases of this disease around the world."

Correct: "In 2010, there were 8.8 million new cases of this disease around the world."

Here is a mnemonic device, or a short memory aid, to help you to remember these first five tips:

It is (Tip #1), the (Tip #2), formal state (Tip #3), that (Tip #4) is described (Tip #5, referring to adjectives, which describe).

It is/the/formal state/that/is described.

It is the formal state that is described.

Recite or write this phrase at the top of your manuscript before reviewing your work to remember what to look for while revising. Just these first five tips are simple quick fixes that will drastically improve your writing. The remaining five tips are more stylistic and contextual but equally important.

6. In Portuguese, it is common to use an "assumed" subject if you have already mentioned the topic in the previous sentence; however, in English, you need to continue to explain what you are referring to throughout the phrase.

"Neste estudo, 74 pacientes foram incluídos. Destes, 7 (9.5%) foram do sexo masculino."

Directly translated:

"In this study, 74 patients were included. Of these, 7 (9.5%) were male."

However, it is important to restate your subject. The importance of this practice will become more apparent in longer, more descriptive phrases. Otherwise, in English, it sometimes becomes difficult to tell which subject you are referring to in the subsequent phrase.

"In this study, 74 patients were included. Of these, 7 (9.5%) **patients** were male."

Remember -it is more important to be parallel when writing in English than to not be repetitive.

7. Try to use the first person ("I" and "we") as little as possible and exchange it with passive voice.

The usage of active and passive voice in the scientific literature has been intensely debated over the years. Whereas some would argue that active voice is more to-the-point, passive voice also has its uses. The suggestion to use passive voice here is directly related to Portuguese-English translation, in which the first person plural is often overused.

Many phrases in Portuguese will begin with "we" assumed:

"Encontramos vários tipos de mosquitos."

This phrase would directly translate to:

"We found various types of mosquitos."



Many native English-speaking researchers will use “we” in their writing, quite often actually. However, there is a defined theory as to why passive voice is specifically used in the scientific literature and not in other types of written material in English. In general, passive voice is used to give emphasis to an object upon which an action is being performed. For example:

In active voice: “The man ate the apple.” The main point of this sentence is that *the man* was the one who ate the apple.

If we reverse it to passive voice: “The apple was eaten by the man.” Now the main point of the sentence is that the *apple* was eaten.

Returning to the previous phrase, if you say “we found various types of mosquitos,” then you are emphasizing that *you* found the results.

Now, if you put the phrase in passive voice: “Various types of mosquitos were found.” Here, you are emphasizing that various types were found, and it’s no longer as important that *you* found them. In this case, you are emphasizing that in your well-designed study, which can be repeated by any other researcher, various types of mosquitos will be found. After all, aren’t reproducible results what is truly important to emphasize when communicating research?

Feel free to use “we”, keeping in mind the above-described theory. If you do use it, try to limit the use of “we” to convey information or results that you would like to emphasize as novel or high impact. Additionally, “we” should be used instead of passive voice when a verb phrase constructed in passive voice plus a gerund is not being performed by (or does not match) the subject:

Incorrect: “PCR was conducted using *taq* DNA polymerase.” Here, it is not PCR that is “using” *taq* DNA polymerase; it is the author. Therefore, “we” would be the appropriate choice.

Correct: “We conducted PCR using *taq* DNA polymerase.”

The verb “to use” is most commonly misused in this context. You should conduct a “Find” search in Microsoft Office Word for “used” and “using” to check whether you have used this verb correctly. I specifically did not include a Portuguese version of this phrase because this is a very common mistake that is even found in published texts written by native English speakers.

8. In your graphs, titles should always be singular, and do not use “variables” as a heading.

Characteristic (NOT Characteristics)	Odds Ratio (NOT Odds Ratios)	95% CI
Sex		
Male (NOT Males)		
Female (NOT Females)		

A variable is only a variable in the methods when you are analyzing your results, after which it becomes a characteristic, risk factor, demographic or other parameter. Be sure to

change ALL of your decimal commas into decimal periods! Highlighting the table and conducting a “Find”/“Replace” search for “,”/“.” can help to ensure that you don’t miss any.

9. Prepositional phrases, transitions and adverbs in the beginning of sentences should be followed by a comma:

“Neste estudo encontramos este resultado.”
“In this study, this result was found.”

Other common phrases:

In Brazil,
Of these,
However,
Therefore,
Currently,
As previously reported,

Try to read the phrase aloud. If you take a breath or pause when reading the sentence, then you likely need a comma there. *If a sentence contains more than two commas (not including lists), it should be split into more than one sentence.*

10. If it is poorly written in Portuguese, then it will be poorly written in English.

Translators are not miracle workers. Make sure that you consult a Portuguese professional, or simply have a colleague, friend or other professor read your work critically, specifically for the Portuguese. When a translation is returned to me because the journal requested a review by a native English speaker, I normally find unfamiliar, random paragraphs with very poor or confusing English in the submitted manuscript. Frequently, when a “final draft” is circulated among a group of researchers for final approval before submission, co-authors will add last-minute details, thoughts or references. These extra paragraphs with unrevised English are easy to identify and decrease the overall quality of the text. Thus, always make sure you are sending the absolute final draft for translation. Just one paragraph could result in having the paper returned to you for “review by a native English speaker”, unnecessarily delaying the paper’s publication for weeks to months and adding costs for additional English revision. Worse, the reviewers may think you did not care enough to review your paper carefully before submission, biasing how they rate the manuscript in general. A well-written article can eliminate the possibility of reviewers rejecting a paper solely because they could not understand the main point or the relevance of the research to the journal at first read. Reviewers do not have the time to stop and read over and over again to understand the meaning of your article. It is up to you to show them why your hard work should be published in their journal. Don’t let something like poor English, which is not related to the quality of your research, cause your rejection.

Above all, remember that the underlying principle in scientific writing in English is “less is more”. This concept varies greatly from the principle underlying most formal Portuguese writing, in which you must be elaborate to be understood. Consider preparing an outline before you begin



writing, and try to avoid deviating from it. An outline will help you to be more objective and rational about the who, what, when, why and how of your research, which will be reflected in the quality of your work in English. Even if an idea is related to the topic of your research, if the idea does not add to the rationale of why you conducted the study or why you obtained your results, cut it out. Another strategy is to find a similar paper from the same journal to which you will submit your manuscript and try to mimic its style, structure and content.

As a final note, one too many “first reports” are beginning to emerge. As English has a large selection of adjectives and descriptive phrases, the overuse of this phrase is quickly becoming apparent. Although the phrase may appear to add significance to your work, it sounds like a simple descriptive study when translated to English. Such phrasing does not grab a reader’s attention and suggests that the study did not

have a research question. Try to focus your title on the larger research question or the most important result of your study.

It is my hope that you have found this summary of my experiences to be helpful and informative. Brazilian institutions have an incredible wealth of information to share with the international community. There is no more important moment than now for Brazilian research to be fairly and accurately seen, heard and understood.

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