Case study and program for teaching EFL scientific writing to Brazilian researchers

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Abstract: This study outlines a plan to facilitate self-translation in English scientific writing by emphasizing group revision exercise. It represents a case study of an experimental course conducted by the author between March and May 2010 with a group of postgraduate physical therapy students. The course outline and description of its execution will be explained, followed by ideas for more fully developing the course and possible benefits of such an approach for Brazilian researchers. The experience indicated that group text revision heightened student awareness of alternative collocations and helped sensitize them to interlanguage miscollocation when self-translating.

Key words: Translation, TEFL, Scientific writing

Introduction

The market for English in Brazil is immense for a variety of reasons. Culturally speaking, the extensive importation of English-language films, music, games and TV series, not to mention international social networking (as Brazil has the fifth largest online population worldwide), has created a generalized source of palpable social pressure.
Academically speaking, English has become a turnkey to opportunity. Entrance to many Brazilian postgraduate programs, even in areas where such a link would seem improbable, such as nursing, is highly dependent on performance in tests of English reading comprehension. Moreover, being the language in which the overwhelming majority of technical journals with higher impact factors publish, English follows the Brazilian researcher throughout his career, adding the requirement of competent written production to breadth of reading.

Science and social science authors who want to publish internationally but have not acquired the necessary level to write directly in English must shop around for a translation service. Investment in such a service, which is often pricey, may be rewarded with surprise when journal peer-reviewers comment on the lack of scientific or even English language competency in their articles. Such authors have little recourse but to keep hunting for a better service in an expensive trial-and-error process while their articles collect virtual dust as they fall behind in research quotas and funding competition. Those authors able to represent their research clearly in English frequently seek out help in the form of a text editing or revision service to conform language and style to appropriate levels. Such help, however, is not a guarantee of success, which ultimately lies in the strength of the original text that is being corrected.

Although Brazilian scientific output and its impact are clearly multifactorial issues, for good or for ill, English language education has become a functional prerequisite for Brazilian scientists. Nevertheless, the type of education currently available in the Brazilian EFL market does not lend itself to academic production although test preparation courses, generally in the form of VIP private tutoring, may be found at a limited number of schools. Thus, despite assertions that “the second-language learner who actually achieves native-speaker competence cannot possibly have been taught this competence” (SELINKER, 1972, p. 212-213), the development of an academic writing course whose goals include written expression on a level acceptable for publication in the international scientific literature should be seen both as a necessity and an opportunity. In this context, such a course, although involving an exportable concept, must be firmly rooted in the structures of Brazilian Portuguese and English to such a degree as to shun the involvement of international publishers and any ambition of “monoglot materials…without regard to students’ L1” (COOK, 1998, p.118).

The purpose of this study was to outline a set of components for such a curriculum based on experience gathered during an experimental course given by the author in Londrina, PR
between March and May 2010 in which this subject was explored with a group of postgraduate physical therapy students.

Methods

The course came about after forming an association with a physical therapy research group at the Universidade Estadual de Londrina. After having revised this group’s manuscripts for some time, a private group English course was suggested to improve the quality of their submissions. Both parties agreed and a class was formed. The group consisted of seven Master’s students, all of whom had passed the English proficiency exam required by the department to enter the postgraduate program. All could read articles in their field with relative ease, and so systematic basic grammar was eliminated \textit{a priori}. It was also established at the outset that pronunciation and conversation were beyond the instrumental focus of the course, and due to the limited time frame (meeting once a week for between 90 minutes and two hours) could not be allowed direct attention. Thus, there was no requirement for the students to speak or ask questions in English except for dealing with examples in the course of the exercises. It was also established that significant amounts of homework would be avoided due to the students’ overloaded schedules.

The course involved three modules that are outlined in more detail below: a basic or Background module on consistently troublesome grammar elements, an Editing module consisting of various group exercises involving the correction of previously-submitted articles from their research group, and a Translation module in which the students translated segments of articles they or colleagues had written and presented them to the group for analysis.

The Background module

As previously stated, the Background module was not a ground-up approach because of the students’ more advanced reading level. Another important factor weighed into the approach was that because there is enough similarity to warrant scholarly debate whether English is actually a romance language (GACHELIN, 1990), the language pair lends itself to a complimentary teaching structure, i.e., one that emphasizes differences (non-similarities) between the languages instead of treating them as rigidly discrete and foreign systems. Thus, this module focused on areas in which the two language systems clashed, where, observed from my experience as a text reviser, Brazilian researchers assume and impose fossilized L1 structures on
English that can violate anything from good style to basic comprehensibility. Such topics, which follow with a minimum of explanation, are outlined in Table 1 below:

Table 1. Content of Background module of EFL science writing course

<table>
<thead>
<tr>
<th>AREA</th>
<th>CONTENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepositions</td>
<td>a. Usage parameters: “on (not in) a day”</td>
</tr>
<tr>
<td></td>
<td>b. Distinct functions (such as agency, composition, etc.): “for me” vs. “to me”</td>
</tr>
<tr>
<td></td>
<td>c. Preposition/verb affinity (where a certain verbs require certain prepositions): “x depends on (not of) y” “x consists of (not in) a,b,c”</td>
</tr>
<tr>
<td>Connecting words</td>
<td>a. Familiarization with transitions, subordinating conjunctions, etc.</td>
</tr>
<tr>
<td></td>
<td>b. Punctuation (e.g. semicolon) requirements for certain transitions</td>
</tr>
<tr>
<td>Adjectives</td>
<td>a. No adjective inflection under any circumstances</td>
</tr>
<tr>
<td></td>
<td>b. Adjective order “acute myocardial infarction”</td>
</tr>
<tr>
<td></td>
<td>c. Adjectival nouns “knee surgery” vs. “surgery of the knee”</td>
</tr>
<tr>
<td>Gerund vs. infinitive</td>
<td>a. Proper infinitive construction (to conclude)</td>
</tr>
<tr>
<td></td>
<td>b. Examples of gerund use</td>
</tr>
<tr>
<td>Present perfect</td>
<td>Implications of the tense, especially when describing the scientific literature: “no studies were conducted” vs. “no studies have been conducted”</td>
</tr>
<tr>
<td>Punctuation</td>
<td>a. Comma usage and comma splices</td>
</tr>
<tr>
<td></td>
<td>b. Inversion of decimal point and comma in English “π = 3.14159265”</td>
</tr>
<tr>
<td></td>
<td>c. Punctuating lists</td>
</tr>
<tr>
<td>SVO order</td>
<td>a. Subject-verb-object model and clarity when writing</td>
</tr>
<tr>
<td></td>
<td>b. Is this a complete sentence?</td>
</tr>
<tr>
<td>Statistics</td>
<td>Prevalent forms of frequent terms such as “repeated-measures ANOVA” and “Student’s t-test”; writing about the significance level</td>
</tr>
<tr>
<td>Internet Research</td>
<td>How to research terms on Google and critically evaluate the results.</td>
</tr>
<tr>
<td></td>
<td>[“sportive practice” .nih.gov -.br -.pt –scielo]</td>
</tr>
</tbody>
</table>

The Editing module

The Editing module represented the beginning of the practical component of the course. It consisted of group exercises involving manuscripts that had been previously corrected for the study group. An uncorrected text was projected on a screen with a video projector and a progression of group exercises was carried out. Exercises began with sentences singled out to highlight specific problems covered in the Background module, such as preposition use or word order. A sentence was given and students were asked if there was anything wrong with the
sentence. If no one perceived the mistake, the problem word or words were pointed out: “What about this?” The weaker the response by the group, the more detailed the explanation and the stronger the reinforcement would be.

Beyond the black-and-white cases, more subtle miscollocations were dealt with by having the students take turns revising sentences. A student would rework a complete sentence without having been prompted about any possible errors and his version would be entered on the screen below the original. The group would be asked to compare the sentences, describing the changes made and the possible reasoning behind them. The student would be given a chance to explain his choices and then the version I had prepared was compared to the other two, if necessary. Valid alternative phrasing suggested by the students was encouraged; they were reminded that the goal was to stimulate their own more authentic English production, and not to simply imitate another writer’s style. The idea was to use sentences that could be resolved and explained by logic rather than by concluding “it just sounds right/better”. Even if aesthetics was appealed to, the mechanics behind it were stressed as much as possible to demonstrate that they could achieve naturalness by reasoning in places where native-speakers relied on “instinct”. This type of exercise was expanded to the paragraph level, with the goal of working on a full text together.

Bear in mind that the application of the Background module was not strictly chronological in the general order of the course; some mistakes in the Editing module called for a review of previous material and others called for completely new lessons unforeseen in the original planning. Drills, warm-ups, review and/or new background topics were presented each class since an overlong group text editing exercise could become tiresome.

The Translation module

The Translation module was to follow a fairly similar pattern as the Editing module, but was not thoroughly explored by the time the course was concluded after about ten weeks. The primary difference was that, due to the need for careful individual thought and the longer time involved in translation, an entire abstract was assigned for translation at home and student work was compared on a sentence-by-sentence basis in class, with the students commenting on each other’s work and arriving at a best version. Although I stepped in where I felt it was necessary, I tried to hang back and let the comparison process itself raise student awareness. Dialog in this module would necessarily include Retsker’s (1974, p. 9) concepts of equivalence, analogy and
adequacy whereby students would acquire strategies for dealing with various levels of correspondence between the grammatical relationship and semantic features of the two languages.

Results and discussion

This course was a trial run. The background content was based on diagnostics of the sample of manuscripts on which I had done revision work. Specific mistakes and miscollocations repeated by a number of authors led to the definition of blind spots and problem interlanguage areas. The course design, progressing steadily from an input to an output basis and from a prescriptive to a descriptive tone, seemed like the natural path to take.

Student reception of the course, which was only informally measured by attendance and chat, and thus will be mentioned only in passing, seemed quite positive. Nevertheless, the course could be more fully developed, especially the Translation module. The final objective of peer (i.e., colleague) reviewed self-translation must be reached for authors to arrive at a greater state of responsibility for their own production. An excellent conclusion for such a course would be to follow a study group through the entire process of manuscript creation and submission to a scientific journal for publishing, including letters to the editor and dealing with the corrections required by the journal’s reviewers, hopefully ending in successful publication.

It should be commented that the special circumstances of this group of students both facilitated and hindered the process. Group cohesion was very high due to their shared university coursework, research projects and in some cases internships, which led to a friendly, non-competitive atmosphere when critiquing each other’s work. Gaffes were not punitively censured by the group, and this openness made them very easy to teach. The only hindrance in the group dynamic was exhaustion from their multitude of activities. Classes were held on a weeknight from 8:00pm until approximately 10:00 after most had studied and put in a full day at their internships, so even though motivation was not lacking there was a limited supply of energy left. Nevertheless, this is hardly idiosyncratic and should really be taken as a basic social reality for any such group taught in Brazil.

Any direct, systematic approach to good writing itself, apart from the SVO lesson and passing examples in the Editing module was left out of the course design although it merits discussion. Whether there exists such a thing as universal sound writing principles that can be
taught outside the bounds of a particular language in the same sense as Chomskian emphasis “on
universal rather than language-specific aspects of language and language acquisition” (COOK,
1998, p.118) is an interesting question. In this case, it could be narrowed down to “what are the
hallmarks of a well-written scientific article?” To address this, a survey of the most influential
articles in a given discipline could be made and the resulting list of articles gathered for analysis.

Self-translation as opposed to direct writing in the target language (in this case English) is
another area that warrants exploration since it is important for a number of reasons in a course
such as this. First and foremost, an original in the mother tongue (L1) leaves a process trail that
can be used to evaluate the success of the product in the target language. In my experience
revising manuscripts, I have found that it would often be easier to do a new translation from the
original than to decipher the intent of a badly handled translation alone. However, in the
Translation module of such a course the authors of a text used in class would also be students
and, naturally, present to clarify intent. Thus, having a base text in L1 would eliminate most
doubt in an objective way for the rest of the students and would also help the rest of the students
more clearly visualize the author’s thoughts. Moreover, prewriting in L1 and then translating
produces a completed prototext as an extra step for author reflection, which could be helpful for
the final product, at least while at the student level. Finally, according to BalboniV (2011, p.1),
“translation can be a motivational activity if the text is actually motivating”. It could be easily
argued that under such circumstances, self-translation would be the most motivating of any
possible exercise.

Self-translation also differs from translating third-party work in that the author, according
to Menakhem Perry (cited by Grutman), “can allow himself bold shifts from the source text
which, had it been done by another translator, probably would not have passed as an adequate
translation” (GRUTMAN, 1998, p.18). The manuscript would still be ‘live’ at this point since
not only the author would be present, but (in the case of the experimental course) colleagues
from the same academic setting and research group who were pursuing the same ends and
involved in the research being written about. The translation work and its peer review in such a
classroom setting thus becomes a natural outgrowth of the research itself, contributing to and
furthering the larger scientific process. In this case, therefore, we have an interesting melding of
purposes: the ongoing (physical therapy) education process under the guidance of the responsible
professor/s, which gains cohesion through the research project, which is then reviewed and
clarified in writing the article in L1, to which is appended the EFL educational goal whereby, in
a course such as that presently described, the article undergoes a second round of revision and
rethinking by the original authors, under the guidance of the EFL professor, before going on to
the final steps of the publishing process and finding a place in the scientific literature.

The question arises whether a course such as this could be given on an individual basis, since cohesive
groups may be hard to come by. First of all, much is gained by the group dynamic, such as the peer review factor
mentioned above and below. The group dynamic also lends itself to a more open, descriptive approach
that can contribute ideas, whereas an individual working with a tutor may be more apt to fall into a prescriptive
pattern and end up simply cloning the style of the tutor, which is great for pronunciation, but could create
dependency for writing. The perennial drawback of the group approach is lack of individual attention, so the size
of any group should be controlled. Participation in an overly large group could actually be worse
than studying individually. A good (although more time-consuming) plan would be to provide a
group class and supplementary tutoring sessions for students having trouble.

Grammatically speaking, a study of the verb tenses by article section could be included in
the course. For example, as mentioned above in Table 1, the difficult present perfect tense often
appears in the introduction section when rehearsing the history of research in a certain area so
far. Calls for further study and description of study limitations in the discussion sections will
frequently employ modals. Consistent use of the past tense is called for in the methods, etc.

There a number of levels on which Brazilians could gain from such an approach to EFL
writing. First, as the linguist Paolo Torresan maintains (2011), “a mistake is a gift to the class.” I
mean to say by this that there is benefit to be derived from an examination of the interlanguage
miscollocations propagated in a great many articles, both those published and those denied
publication, by Brazilian authors. From such mistakes, a territory of Portuguese and English
system clash can be mapped out by means of which Brazilian researchers can be sensitized to
areas where Portuguese language parameters do not transfer. Second, the peer review
component of such a course will help sensitize authors to the need for clarity in their writing, not
only because their own colleagues will need to read their production in class (and not merely
some faceless reviewers from some faraway journal), but to express their thoughts in such a way
as to lend them to exportation, which can lead to the exposure they desire for their research. The
final benefit of such education applied on a large and consistent enough scale would be that the
general linguistic quality of Brazilian scientific writing would improve, removing costly
intermediaries from the publication process and leading to more numerous and citable
publications.
References


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1 http://www.internetworldstats.com/top20.htm (as of June 30th, 2010 based on Neilsen online data)

2 A survey of the titles of the top 10 impact factor journals in about a dozen random fields at Thomson Reuters Science Watch www.sciencewatch.com yielded none that were not in English (discounting a few acronym titles, which were not followed up)

3 Science Gateway http://www.sciencegateway.org/rank/index.html offers an index of world scientific impact by country, in which neither Brazil nor any of the other BRICs met the mean number of citations per article in any category, although Brazil, Russia, India and China rank 17th, 10th, 12th and 5th, respectively, in worldwide science and social science output. http://sciencewatch.com/dr/sci/09/feb15-09_1D/

4 The course was brought to a stopping point because I was closing my school to move to Florianópolis, SC to enter the Translation Studies program at UFSC. Attendance was still strong at this point.

5 “ [...] a tradução é uma atividade motivadora se o texto for motivador [...]” Translated by the author.