Building Vocabulary Acquisition Skills in English Academic Writing with the aid of Corpus Linguistics: the UCS Writing Center Initiative

A Construção de Habilidades de Aquisição de Vocabulário na Escrita Acadêmica em Inglês com o auxílio da Linguística de Corpus: a Iniciativa do UCS Writing Center

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Abstract
Acquisition of academic vocabulary is paramount to students’ success in academic life, as well as for the process of writing publishable papers in English so that research can be shared more broadly (NAGY; TOWNSEND 2012; PAQUOT, 2014). While in countries such as The U.S. and England the practice of offering Writing Centers for academic writing thrives, the initiative is still quite shy in Brazil (CONS 2020), though some Writing Centers around the country have recently started to operate. The aim of this paper is to report how the training activities of the Writing Center at University of Caxias do Sul – UCS Writing Center - use the Corpus Linguistics approach (BERBER-SARDINHA 2004) to enhance acquisition of academic vocabulary, therefore providing better academic writing skills to professors and students of the institution and the community it targets. The article contextualizes the Writing Center within the University and presents a series of activities which were designed based on research of Corpus Linguistics’ application to the teaching and learning of English for Academic Purposes (EAP). The activities provide specific instances of how Corpus Linguistics resources can be an invaluable asset for the improvement of vocabulary in academic writing in English, being especially useful for researchers who wish to upgrade the quality of the language used in their international publications.

Keywords
Academic Vocabulary Acquisition. Corpus Linguistics. Writing Center.

Resumo
A aquisição de vocabulário acadêmico em Língua Inglesa é essencial para o sucesso da vida acadêmica de um estudante, além de ser importante para que o estudante possa publicar suas pesquisas em inglês e...
compartilhá-las com maior alcance (NAGY; TOWNSEND, 2012; PAQUOT, 2014). Universidades de países como os Estados Unidos e a Inglaterra oferecem centros de escrita acadêmica a seus alunos e professores, porém esta prática tem se mostrado ainda timida no Brasil (CONS, 2020), embora alguns centros recentemente estejam operando. O objetivo deste artigo é relatar como as atividades de formação do Centro de escrita acadêmica da Universidade de Caxias do Sul – UCS Writing Center - utilizam a abordagem da Linguística de Corpus (BERBER-SARDINHA, 2004) para melhorar a aquisição de vocabulário acadêmico em Inglês, proporcionando assim melhores habilidades de escrita acadêmica a professores, alunos, e à comunidade servida pela Universidade. O texto contextualiza o Writing Center dentro da universidade e apresenta uma série de atividades que foram desenvolvidas tendo como base a pesquisa da aplicação da Linguística de Corpus ao ensino e aprendizagem de Inglês para Fins Acadêmicos. As atividades fornecem exemplos específicos de como recursos da Linguística de Corpus podem ser considerados como uma ferramenta útil para a melhoria do vocabulário acadêmico na escrita acadêmica em Língua Inglesa, especialmente para os pesquisadores que desejam aumentar a qualidade linguística de suas publicações internacionais.

Palavras-chave
Aquisição de vocabulário acadêmico. Linguística de Corpus. Writing Center.

Introduction

The current teaching scenario of higher education features an unprecedented movement towards internationalization (WASSEM ET AL., 2020), brought by the overcoming of physical limits which has been one of the few positive aspects of the Covid-19 pandemics. Through online platforms, communication, the exchange of knowledge in education and in technical-scientific areas have given the final step towards conquering a true globalization phenomenon.

The internationalization of education must aspire to the production and diffusion of knowledge with international partners, so as to contribute for the eradication of poverty, sustainable development and global progress as a whole (PATEL, 2017). The University of Caxias do Sul (UCS) has developed a project of internationalization that aims at implanting a culture of constant involvement in structuring actions able to generate value in the social, financial and knowledge fields (PANIZZON et al., 2018). Among others, one of these actions concerns the education and training of professionals who are proficient and skilled in English reading and writing, allowing them to fully insert themselves into the technical-scientific world array of publications and research, a sine qua non condition for a globalization of the institution’s research and work to take place (BAUMVOL; SARMENTO, 2016).

Even though Writing Centers have had their origin in universities across The U.S., currently they are a practice that extends around the world. A Writing Center is a space destined to provide practice of writing genres, mostly in academic settings (CONS, 2020). Barely any international research about the relationship of the Writing Centers’ contribution to the process of internationalization of the universities can be found currently. However, one may assume that Writing
Centers could represent an invaluable aid in the process of internationalization, due to the lack of consolidated writing programs in English in Brazilian Universities, and given the pressure that professors and graduate students feel to publish in good quality journals (CONS; MARTINEZ, 2021).

Therefore, the aim of this article is show examples of how Corpus Linguistics has been contributing for the training activities developed by UCS Writing Center, with the intention of improving academic vocabulary, and consequently, better writing skills in Academic English; such activities are targeted at the professors of the institution, its students, and the community that it serves.

The article first contextualizes the University of Caxias do Sul’s Writing Center, describing how it was created and how it operates. After that, the paper focuses on Corpus Linguistics and its functionality in Academic Language training. Lastly, it presents a few activities, designed under the wing of previous studies in Corpus Linguistics, aimed at directing the audience of the training sections towards improving academic vocabulary and writing skills in Academic English.

2 History and Contextualization of the program

The University of Caxias do Sul (UCS) is a Community Institution of Higher Education (ICES), with direct action in the northeastern region of the state of Rio Grande do Sul. It has a multicampi structure, with language and computer labs, as well as equipped classrooms. with the necessary technology. This structure provides services to 14 municipalities in the Serra Gaúcha.

The University of Caxias do Sul, as a center of teacher training and lifelong learning and teaching in our region, is concerned with the starting point of the internationalization of the institution. Several actions have been developed to provide English-Language students and students of other areas who need English in their studies with opportunities to learn and interact with the English Language.

The University’s adoption of the Institutional Program for Teaching Initiation - PIBID, has contributed to the questioning, reflecting and qualifying the teaching of foreign languages in the schools where the project is implemented. It has also offered space to scholarship students involved in the project to better understand the school reality and, as a result, to problematize, reflect and qualify their own education, bringing about change in the school reality.

The coming of the exchange students through the CAPES/FULBRIGHT project of English Teaching Assistants (ETAs) contributed to crown the efforts of
providing interaction and contact with English culture and language in a meaningful way that our undergrad and postgrad students would not otherwise be able to improve speaking, reading and academic writing.

The process of Internationalization in Brazil is demanding some new skills from students and professors at the universities. It is not different in our university. It was necessary to bring English closer to our undergraduate (Letras-Inglês) and post-graduate students, as well as all English Teachers of our region. Besides our regular activities and courses, this process was maximized with an international event for English teachers, hosted by our university and after that, the decision of opening a Writing Center to face our challenge of qualifying and giving support to students and professors to their writing process in English.

The idea of opening the Writing Center began when we presented our intention of hosting a BRAZ-TESOL event (2016) and we were selected (2018) to host it. For the first time in Rio Grande do Sul, the International conference of the largest association of English teachers in Latin America, BRAZ-TESOL 16th International Conference happened in July 2018 in our city. During the event, it was possible to organize meetings of the American Embassy and the British Council with the Pro-Rectory of Graduate Studies of UCS, with the objective of aligning some guidelines to add to the internationalization process of the University of Caxias do Sul. The initiative to create the UCS Writing Center was due to a suggestion of the American Embassy in Brazil, by Jennifer Uhler, Regional English Language Officer- US Department of State. It added efforts to the UCS internationalization process with UCS International and the EducationUSA office at UCS, organization responsible for providing guidance to students who wish to apply to an American university at undergraduate and graduate level.

In this context, UCS Writing Center has been a greater approximation between theoretical and practical knowledge, an opportunity in which language undergraduate students, postgrad students and professors may improve and transpose their knowledge on reading and writing to their essays and papers. This way, the opening of the Writing Center managed to help students and professors to feel more comfortable and confident in writing papers in English to submit the results of their research to international Journals, to communicate to international partners and maybe to travel to research with partners abroad.

UCS Writing Center was structured based on guidelines from the Writing Centers of the United States of America, with the suggestion of creation, and the support of the American Embassy in Brazil, during and after its creation. It was opened on June 10th, 2019, with the objective of meeting the needs of professors
and post-graduate students for the improvement and increase of their publications in international journals, as well as to support undergraduate students in English, in the writing of their Final Papers (called TCCs) in English Language.

The Writing Center follows some premises considering the interests of the participants:

1. Support academic writing and presentation of papers in English.

2. Provide training in accordance with the students and professors at the university who have at least an average command of writing in English for professional performance and for publishing their research.

3. Support the review of presentations for congresses, Cover Letters, and articles, always with the aim of providing opportunities for participants to develop their writing and oral skills in English.

4. Offer an opportunity for development of oral fluency through scheduling with coordinators and Tutors or participating of English & Chill (Intermediate and advanced informal conversation group).

5. Provide a closer relationship between teachers and students with the International Advisory sector, with the opportunity to host English Teaching Assistants and show a little of our region and customs.

This article will focus on describing how the second premise has been carried out, outlining the approach and methodology which underlie the practices of the Writing Center concerning the training for academic writing improvement. The approach is provided by the principles of Corpus Linguistics, and the methodology involves using tools and resources which follow these principles. The next sections will lay out how functional Corpus linguistics can be regarding Academic Writing improvement and show with examples of activities how resources and tools relying on Corpus Linguistics principles have been of use when training professors, students, and the community on the enhancement of their academic writing skills.

3 Corpus Linguistics and its functionality in Academic Language training

Corpus linguistics’ birth is attributed to the work of John Sinclair (1991) and the Cobuild project at the University of Birmingham (UK). The main characteristic
of Corpus Linguistics is empirical analysis, based on existing patterns in natural texts, using computerized tools and depending on qualitative and quantitative approaches (Berber-Sardinha, 2004). Corpus Linguistics first observes the behavior of the language in its natural habitat (the text) and then theorizes about it, as opposed to more traditional approaches of language analysis; these determine that the language must be analyzed according to previously determined premises. Corpus Linguistics enables us to observe patterns in the language under analysis more thoroughly and more truly (MCENERY; HARDY, 2012).

According to Sinclair (1991, 2004), Leech (1992), Stubbs (1993) and Teubert (2005), the corpus-oriented approach seeks to analyze lexical patterns and frequencies that can lead the researcher to hypotheses and, consequently, to generalizations. In other words, the data obtained from corpora can be used for the formulation of lexical-grammatical descriptions.

Researchers working with Corpus Linguistics may choose between two perspectives to conduct their studies: corpus-based and corpus-driven. The corpus-based perspective uses the corpus to exemplify, test and prove theories which have been previously formulated. The corpus-driven perspective formulates theories after analyzing the corpus. The corpus works as an empirical basis on which the researcher identifies linguistic features and uses them to reach conclusions (TOGNINI-BONELLI, 2001; GRIES, 2010). The examples of activities used by UCS Writing Center follow the corpus-driven approach, since the academic text is the source from where the trainees will gather their conclusions and apply these to improve their academic writing. This practice stems from the work of Tim Johns (1991), with the DDL (Data-Driven Learning) approach.

The functionality of Corpus Linguistics for the English Language Teaching classroom has been well explored over the past years (O’KEEFE et al., 2007; BERBER-SARDINHA, 2011; FRANKENBERG-GARCIA, 2014, 2016; among others). More specifically, the use of Corpus Linguistics for English for Academic Purposes (EAP) teaching and training has been argued to be useful and beneficial for the training of Academic Writing. Flowerdew (2004, p.11) points out that general corpora (the plural form of corpus) “have proved to be extremely useful for understanding how naturally-occurring language operates, then by the same token, specialized corpora can also prove to be of value in understanding academic and professional language”.

Academic Writing has its linguistic particularities and features, such as fixed deictic elements, jargon, phrases to structure the text and the methodology of the study, expository phrases, and technical-scientific terminology. Nell-
son (2018) argues that academic language is bound to present holistic behavior, more often than not happening in “chunks” that occur with relative frequency in academic corpora. This provides great opportunities of language acquisition and analysis for people who are training to improve their academic writing. Hence the use of Corpus Linguistics by UCS Writing Center in the training sessions offered to professors, students and the community served by the institution. The next section will provide some examples of activities and exercises used within these training sections.

3.1. Using Corpus Linguistics to improve writing academically in English at UCS Writing Center - some examples of activities

In this section, we will outline a few of the activities which compose some of the training given to the target audience of our Writing Center. The students and professors and members of the community who attend these trainings will be referred to as trainees. In the first year, UCS Writing center provided training using the premises of the University in the Caxias do Sul campus; due to the situation brought by the pandemics, it has been operating through virtual platforms. The activities described in the sequence aim for the trainees to learn to observe textual and linguistic features of the academic texts that compose their area of interest, so that they can use these findings in their advantage to boost writing competence.

The first action that UCS Writing Center usually requires of its trainees involves gathering as many academic texts of their area of interest as possible. These texts will be used later to examine linguistic features of interest to the student or professor who would like to write in a more natural academic style according to the publications of their field. This will be the trainees’ corpus.

These texts will then be fed to a software which provides lists of frequent words, concordance lists, and lists of collocates. Because of its facility of download and friendly interface, as well as being free of charge, most of the time the software AntConc\(^1\) (ANTHONY, 2004) is used. However, there are a number of other tools that can also be used\(^2\). AntConc is equipped with a concordancer (resource that indicates what words are combined with which ones); generators of word frequency lists (which show what are the most frequent words that appear on the corpus); and a keyword function (which provides the keywords of a corpus,

\(^1\) Available at https://www.laurenceanthony.net/software/antconc/. Access November 2021.
\(^2\) WordSmith Tools, Sketch Engine and the more recent LancsBox are also very popular.
comparing the corpus of study with another corpus at least five times larger - called the reference corpus).

Moon (2010) brings out that studying collocation on a corpus through a concordancer tool may allow us to discover relevant information regarding the semantics of lexical items, typical subject and object realizations, recurrent or mandatory grammatical structures, as well as the semantic prosody of the collocational units which are being examined. The exercise used with trainees entails generating a list of frequency with the corpus gathered, showing them that grammatical words are the items which appear most frequently in the corpus; and then exploring the most frequent lexical words and asking trainees to check how these lexical items combine with others to form units of meaning which are recurrent in the field they are researching. After that, some tools which help trainees to find the correct collocation when writing an academic text are introduced and some exercises of practice are carried out.

One of these tools is a free part of Sketch Engine, SKELL³ - Sketch Engine for Language Learning, which enables the researcher to study the English language through a billion-word collection of news, scientific papers, and other sources. SKELL brings a thesaurus, a concordancer with examples and collocation information on the corpus.

For example, let’s say a trainee is writing an academic article and is unsure if he/she should use the combination *make a decision*, or *take a decision*. Figure 1 shows results on SKELL for *take a decision*, and Figure 2 shows results for *make a decision*.

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Even though both collocates are acceptable to use, _take a decision_ (0.3 hits per million) appears a lot less than _make a decision_ (3.53 hits per million) in the corpus. But the frequency should not be the only criteria to be examined. Trainees are also invited to check the examples provided by the concordancer, and they will notice that _make a decision_ is used in contexts that appear to be more informal than the combination _take a decision._
One more example of how trainees can benefit from SKELL regards finding out which collocation is best suitable for their writing through the Word Sketch tool. Imagine a trainee is trying to decide if he/she should write *depend on* or *depend of*. Figure 3 shows that the tool brings not only the answer but also other possibilities of combination, such as *depends a great deal on*.

**Figure 3 - SEARCHING FOR THE PREPOSITION ONE SHOULD USE WITH THE VERB DEPEND ON SKELL**

![Figure 3](https://skell.sketchengine.eu/#home)

Source: https://skell.sketchengine.eu/#home.

Examining corpora can also aid trainees with frequent grammatical constructions in academic language. Coxhead (2010) exemplifies this by mentioning the use of the verb required, which in the site AWL Highlighter by Sandra Haywood at Nottingham University⁴ appears to be more frequently used in the passive voice. Participants at UCS Writing Center training sections are asked to identify which verbs are the most frequent in their corpus, and then check if there are specific characteristics that occur frequently with these verbs: if they are used frequently in the passive, or with a specific tense and aspect, or which prepositions or typical objects accompany them.

Lexico-grammatical structures are also explored at the functional level, so as to connect them to the rhetorical movements of the academic genre (SWALES, 1990), i.e. mentioning previous research and introducing a research gap. Biber et al. (2007) provide an instance of how verbs with *that*-clauses usually function as reporters of previous research in academic corpora. Karpenko-Seccombe (2020)

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exemplifies how adverbs ending in -ly may play an important role when the writer is pointing out the desired research gap.

Another activity of the training regards identifying the different Phraseological Units and Terminological Units in the academic texts used as the basis for the participants' production of academic writing. According to Gries (2008, p.6), Phraseological Units are “the co-occurrence of a form or a lemma of a lexical item and one or more additional linguistic elements of various kinds which functions as one semantic unit in a clause or sentence and whose frequency of occurrence is larger than expected on the basis of chance.”

Terminological Units are linguistic elements which establish a specific relationship with a delimited theme, field or area (HOFFMANN, 2015). In other words, academic papers contain phraseological units found on the different academic genres and terminological units are found on the different technical-scientific areas.

With the aid of the keyword tool in AntConc or any other software, trainees are led to identify terminological units which are frequent in their area of study, and make a personal glossary, looking for their meaning in online dictionaries or specialized databases. This activity is based on the work of Campoy-Cubillo (2002): so as to understand students' knowledge gaps with the use of English language dictionaries, she developed an activity in which students themselves should organize the pertinent information from a dictionary for their own use. The keyword tool extracts the most frequent words in the specialized corpus, when compared to a larger corpus of general words (such as the British National Corpus). These words may direct trainees to the terminological units which are frequent in their area of expertise, but not in a corpus of general English.

After that, trainees are encouraged to check The Manchester Phrasebank, created by John Morley, using phraseologies. It was designed for EFL Learners, research field and academia. Its sources were a hundred academic dissertations from the University of Manchester. The site is available at http://www.phrasebank.manchester.ac.uk/. Trainees are asked to research some phraseological units which are shown by the phrasebank and compare these phraseological units to their own academic corpus, separating them into categories that compose the academic genre, such as introduction, methodology, etc. We learnt about this tool during a workshop organized by Frankenberg-Garcia, Sarmento, Boccorny and Tavares Pinto (2019).

One last tool that is frequently used in our training sessions for UCS Writ-
ing Center is MICUSP - Michigan Corpus of Upper-Level Student Papers. This resource is a free online corpus of papers from graduate students from University of Michigan who have been granted grade A. This corpus is really useful to trainees because it shows not only research articles but also other academic genres, and instead of showing results in concordance lines it highlights them in the source texts. The corpus covers four main subject areas: Social Sciences, Biological and Health Sciences, Humanities and Arts and Physical Sciences. The corpus can be used for a number of different goals, though for the training sessions we are describing the most popular search is what discourse markers and conjunctions are more frequently used by these students and in which areas and which genres. Pictures 4 and 5 show how two discourse markers used to express contrast, however and nevertheless, are distributed very differently among the areas: nevertheless is more frequent in History, English and Psychology papers; whereas however shows a slightly more balanced use among the areas.

**Figure 4 - SEARCHING FOR THE DISCOURSE MARKER NEVERTHELESS IN MICUSP**

![Image](https://micusp.elicorpora.info/).

Source: https://micusp.elicorpora.info/.

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The activities presented so far provided useful examples of how Corpus Linguistics may contribute to the acquisition of academic vocabulary through the study of real academic texts, enabling the learner to see how chunks of language operate in academic environments. Knowledge generated by searching for collocation patterns and the semantic value of chunks of language seen in concordance lines may guide the learner to using vocabulary more skillfully in academic writing, rendering it more fluent and flowing; awareness of discourse markers meaning and usage in different scientific domains results in texts that may appear more readily insertable into the international academic community.

4 Final comments

The aim of the present paper was to show examples of how Corpus Linguistics (CL) can contribute for the acquisition of academic vocabulary and to help improving academic writing, by describing some of the activities the University of Caxias do Sul’s Writing Center – UCS Writing Center, apply CL features in their training activities aimed at professors and students of the institution, as well as the community it is located.

The article reports how the Writing Center came into existence and elicits some of the actions carried out by this program to promote the improvement of academic writing skills. After that, it presents a number of activities, designed under the wing of Corpus Linguistics previous studies, aimed at directing the audience of the training sections towards better academic writing skills through
the acquisition of academic vocabulary.

The training activities included investigating linguistic and textual features such as collocation; discourse markers; phraseological and terminological units; and analysis of lexico-grammatical structures, as well as semantic patterns found in the texts.

The scope of the activities and exercises here shown is limited when facing the multitude of research and study in the field of Corpus Linguistics and English for Academic Purposes. Nonetheless, it is possible to state that the activities described demonstrated relevant and concrete ways to apply Corpus Linguistics concepts and resources into actual practice of academic writing skills. Our final conclusion is that the main benefit of this approach is making trainees aware that turning into a researcher of the linguistic features of the academic language of their areas of interest may be indeed a good technique to improve one’s academic writing skills.

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