ARTIGO

Exploring academic article introductions from a paleontology community of practice through genre analysis

Explorando introduções de artigos acadêmicos de uma comunidade de prática da paleontologia por meio da análise de gêneros

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Abstract

Paleontology is the science which studies the evolutionary process of the species that inhabited Earth in the past. In the Brazilian state of Rio Grande do Sul, the Centro de Apoio à Pesquisa Paleontológica da Quarta Colônia da Universidade Federal de Santa Maria (CAPPA/UFSM) plays a fundamental role in the region. This study investigates the rhetorical organization of the Introduction sections of 22 articles written in English and published by the members of CAPPA/UFSM. They were analyzed based on Swales' (1990; 2004; Swales; Feak, 2012) CARS model. Results show the sample investigated follows a general organization of Introduction in academic articles, which reinforces the moves and steps classified as "obligatory" by the CARS model. We also found variations regarding moves and steps, thus revealing some specific characteristics of the discipline of Paleontology represented in the academic articles of CAPPA/UFSM.

Keywords: Scientific Articles, English for Academic Purposes, Paleontology.

Resumo

Paleontologia é a ciência que estuda o processo evolutivo das espécies que habitaram o planeta Terra no passado. Na região central do estado do Rio Grande do Sul, o Centro de Apoio à Pesquisa Paleontológica da Quarta Colônia da Universidade Federal de Santa Maria (CAPPA/UFSM) desempenha um papel fundamental nas pesquisas paleontológicas. O presente estudo investiga a organização retórica das seções de Introdução de 22 artigos acadêmicos escritos em inglês e publicados pelos membros do CAPPA/UFSM. As seções foram analisadas com base no modelo CARS de Swales (1990; 2004; Swales; Feak, 2012). Os resultados apontam que a amostra investigada segue uma organização geral de introduções em artigos acadêmicos, o que reforça o caráter "obrigatório" desses movimentos e passos, previstos no modelo CARS. Além disso, encontra-

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mos variações em relação aos movimentos e passos, revelando assim algumas características específicas da disciplina de Paleontologia, representada nos artigos acadêmicos do CAPPA/UFSM.

Palavras-chave: *Artigos científicos, Inglês para Fins Acadêmicos, Paleontologia.*

1. Introduction

Over time, planet Earth has always undergone constant changes, while several organisms and species have evolved on it. The science that studies life forms that inhabited our planet is Paleontology. This discipline was developed throughout the 17th and 18th centuries, but it was only in the 19th century that Paleontology became essential for studying fossil records, in order to understand the life habits such beings had during previous geological times, how they interacted with the environment, how they dissipated and were preserved, as well as how all these factors relate to the existing living beings (Cunha; Franscischini, 2022). Thereby, Paleontology unravels the past events that culminated in the current biodiversity, in a way that it helps us comprehend the theories of evolution and the natural selection one. Fossil records and prehistoric beings are usually associated to bones and dinosaurs, respectively. Nevertheless, there are different types of fossils, such as leaves, shells, eggs, teeth, and logs, which may belong to different beings, as plants or large mammals even (Cunha; Francischini, 2022). This stretches far beyond the boundaries of our imagination, which was created by the movie industry and its science fiction films that portray prehistoric beings (e.g., Jurassic Park). It has somehow aroused scientific interest in Paleontological research endeavors (Calixto, 2015).

In Southern Brazil, the Centro de Apoio à Pesquisa Paleontológica da Quarta Colônia da Universidade Federal de Santa Maria (CAPPA/UFSM) is the only paleontological center in the state of Rio Grande do Sul that has a complete infrastructure for material collection, analysis, scientific production and curation, as well as for museum activities – all in the same location (verbal information[1]). This region stands out for the significant presence of dinosaur fossils from the Triassic period (Langer; Ramezani; Darosa, 2018). CAPPA/UFSM was created in 2003 and incorporated by UFSM in 2013 as part of its Center of Natural and Exact Sciences. According to Costa (2023), the region where CAPPA/UFSM is located – known as Geoparque Quarta Colônia –

[1] This information was provided by CAPPA/UFSM's former director, Rodrigo Temp Müller, during a semi structured interview conducted at CAPPA/UFSM on May 5th, 2022.

was recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and became a world geopark in 2023. Besides that, dating studies point out that the oldest fossil records of dinosaurs in the world are found in the region where CAPPA/UFSM operates (Langer; Ramezani; Darosa, 2018).

By promoting paleontological and geological research in the region, CAPPA/UFSM monitors and maps fossiliferous sites to collect material[2]. It also fosters the development of academic activities and scientific production not only in the state, but also nationally and internationally. Most of the scientific publications produced by the members of CAPPA/UFSM are academic articles written in English and published in interdisciplinary journals of international origins. This is reflected in all 15 publications from 2022 that are available on its institutional website. They were published in the following journals: *Scientific Reports*, *Journal of South American Earth Sciences*, *Journal of Vertebrate Paleontology*, *Zoological Journal of the Linnean Society*, *Journal of Systematic Palaeontology*, *Gondwana Research*, *The Anatomical Record*, *PeerJ*, *Bulletin of the Peabody Museum of Natural History* and *Paleontological Research*. These are some of the factors that demonstrate how relevant CAPPA/UFSM is in the international scientific setting in the field of Paleontology. Thereby, an Applied Linguistics study which investigates the rhetorical structure of the academic articles written by the members of CAPPA/UFSM is essential in terms of comprehending how this field organizes and presents its findings (Swales, 1990). From this perspective, our study provides insights regarding the linguistic characteristics of the discipline, as well as it contributes to the knowledge dissemination between Applied Linguistics and Paleontology.

A brief search of previous studies of Applied Linguistics related to Paleontology (Argamon; Dodick, 2005; Argamon; Koppel, 2010; Cesiri, 2019; Cervo, 2021; 2023) shows that further linguistic studies within this scientific field are still required. This way, a research based on the Genre Analysis perspective (Swales, 1990; 2004; Swales; Feak, 2012) would be appropriate to help us understand the academic genres produced by CAPPA/UFSM. Genre Analysis is "[…] versatile and dynamic in nature, essentially explanatory rather than purely descriptive, narrow in focus, but broad in vision, and has a natural propensity for innovation and exploitation" (Bhatia, 2002, p. 6). Thereby, investigating genres means exploring in-depth the practices of a specific discourse

[2] This information was retrieved from CAPPA/UFSM's institutional website. Available at: https://www.ufsm.br/unidades-universitarias/ccne/cappa/sobre/. Accessed on: 28 July 2024.

community, encompassing the procedures and cultural influences that pervade the context in which genres are produced, ultimately contributing to their formation. In other words, this means an interrelation among knowledge, language, and academic context, where language serves as the structural foundation to systematize the genres (Motta-Roth, 1998).

Genre Analysis is presented as a theoretical and methodological support to comprehend genres (Swales, 1990; 2004; Swales; Feak, 2012). The authors apply this approach in their studies, mainly in research from English for Specific Purposes (ESP) and English for Academic Purposes (EAP), in order to analyze scientific articles from several disciplines. Swales and Feak (2012) observed aspects of the macrostructure in academic articles and established that the prototypical structure of information in this genre is generally organized as Introduction, Methods, Results and Discussion (IMRD). However, we are likely to find possible distinctions depending on the discipline under investigation, such as potential divergences even in the titles of the sections. This occurrence is attributed to the inherent heterogeneity and the dynamic nature that characterize genres (Ibidem).

The transition that occurs across the sections IMRD can be understood as a movement of general information of the discipline, which is detailed by specific descriptions on how the study was conducted and what are the consequential findings obtained from the analysis; then, it returns with insightful interpretations of a new knowledge, as well as presenting the relevance, implications and potential developments of the study's outcome in relation to what was established initially (Motta-Roth; Hendges, 2010). Here, we focus on the Introduction section, mainly because there are many studies in Applied Linguistics about this section in academic articles, such as the ones conducted by Swales (1990; 2004; Swales; Feak, 2012). Nonetheless, there are no Applied Linguistics studies on these sections from the field of Paleontology.

The Introduction section comprehends general aspects, which contextualize the research and the problem to be investigated in the scientific field, presents a rationale, and defines the objectives of the research (Motta-Roth; Hendges, 2010). In this section, the main objective is to introduce the motivations for the study, starting from a general discussion about the field of study to a specific question related to the proposal that will be developed. Since it presents specific information and objectives, the Introduction section contains typical rhetorical moves in terms of macrostructure. Swales (1990; 2004; Swales; Feak, 2012) devised the CARS model to capture the

main characteristics of Introduction sections. Chart 1 shows the moves and steps typical of Introductions in academic articles.

Chart 1: CARS model

Move 1 – Establishing a research territory a. by showing that the general research area is important, central, interesting, problematic or relevant in some way (optional) b. by introducing and reviewing items of previous research in the area (obligatory)
Move 2 – Establishing a niche by indicating a gap in the previous research or by extending previous knowledge in some way (obligatory)
Move 3 – Occupying the niche a. by outlining purposes or stating the nature of the present research (obligatory) b. by listing research questions or hypotheses (PISF*) c. by announcing principal findings (PISF) d. by stating the value of the present research (PISF) e. by indicating the structure of the RP (PISF)

***PISF:** probable in some fields, but rare in others.
Source: adapted from Swales and Feak (2012, p. 331).

Atai and Habibie (2012) analyzed the general structure of 90 samples of academic article Introductions from ESP, Psycholinguistics and Sociolinguistics, using the CARS model as a reference. During their investigation, the authors identified that most of the samples begin the Introduction section with Move 1. Besides, their results indicated disciplinary variation related to Move 2, which was either omitted or dislocated in some of the samples. Still based on the CARS model, Manzoor, Majeed and Munaf (2020) explored rhetorical structure and linguistic elements of 15 Introduction sections of academic articles from Civil Engineering, and they realized that the samples, in general, fit the CARS model and its rhetorical moves and steps. Nevertheless, the samples did not follow the sequence defined by CARS model and they presented variations between the moves and their respective steps. Likewise, Lu, Yoon and Kisselev (2021) followed the CARS model to investigate linguistic realizations of rhetorical functions through the identification of phrasal patterns in Introduction sections of 600 academic articles from Social Sciences. They noticed some new rhetorical moves – besides those proposed by the CARS model – in the Introduction sections that are frequent in Social Sciences and represent specific characteristics of the academic writing in this discipline. The studies mentioned so far ensure that the genres usually present variations in different disciplines (Swales; Feak, 2012).

This paper aims at investigating 22 samples of Introduction sections of academic articles written in English by the members of CAPPA/UFSM. Here, we follow the CARS model proposed by Swales (1990; 2004; Swales; Feak, 2012) to understand the rhetorical organization of these sections. This way, we expect to identify evidence of linguistic elements that are representative of Paleontology. The final objective of this analysis is to comprehend how the members of CAPPA/UFSM write their academic articles, in order to assist them and other researchers in the face of this practice.

2. Methodology

This study investigated the structure of 22 Introduction sections of academic articles that were written in English and produced by the members of CAPPA/UFSM. We collected the sample during a semi structured interview with CAPPA/UFSM's former director, Rodrigo Temp Müller. The interview happened at its facilities on May 5th, 2022. The sample was then pre-selected by the director, and it summed up a total of 69 publications from different periods. Our criteria for selecting the sample comprehended different factors other than the genre and its language – i.e., academic articles written in English language. In addition to it, we considered that a) the articles should be limited to 15 pages, and b) the publications should be from 2015 to 2022. Based on these criteria, we selected 22 articles. Chart 2 presents the sample. They are organized by title, year of publication, journal, and a code to identify each article throughout this study. The code represents a combination of the initials AA that sign the genre (Academic Article), the year of publication and a sequence letter.

Chart 2: The sample

Title	Year of publication	Journal	Code
New information on the postcranial skeleton of Massetognathus ochagaviae Barberena, 1981 (Eucynodontia, Traversodontidae), from the Middle Triassic of Southern Brazil	2015	Historical Biology	AA2015a

Wachholz, a new exquisite dinosaur-bearing fossiliferous site from the Upper Triassic of southern Brazil	2015	Journal of South American Earth Sciences	AA2015b
Biogenic control on the origin of a vertebrate monotypic accumulation from the Late Triassic of southern Brazil	2015	Geobios	AA2015c
The femoral anatomy of Pampadromaeus barberenai based on a new specimen from the Upper Triassic of Brazil	2015	Historical Biology	AA2015d
On the presence of the subnarial foramen in Prestosuchus chiniquensis (Pseudosuchia: Loricata) with remarks on its phylogenetic distribution	2016	Anais da Academia Brasileira de Ciências	AA2016a
Taxon sample and character coding deeply impact unstable branches in phylogenetic trees of dinosaurs	2017	Historical Biology	AA2017a
Are the dinosauromorph femora from the Upper Triassic of Hayden Quarry (New Mexico) three stages in a growth series of a single taxon?	2017	Anais da Academia Brasileira de Ciências	AA2017b
The role of ontogeny on character polarization in early dinosaurs: a new specimen from the Late Triassic of southern Brazil and its implications	2017	Historical Biology	AA2017c
A peculiar bonebed reinforces gregarious behaviour for the Triassic dicynodont Dinodontosaurus	2018	Historical Biology	AA2018a
Ingroup relationships of Lagerpetidae (Avemetatarsalia: Dinosauromorpha): a further phylogenetic investigation on the understanding of dinosaur relatives	2018	Zootaxa	AA2018b
Under pressure: Effect of sedimentary compression on the iliac morphology of early sauropodomorphs	2018	Journal of South American Earth Sciences	AA2018c

Siriusgnathus niemeyerorum (Eucynodontia: Gomphodontia): The youngest South American traversodontid?	2019	Journal of South American Earth Sciences	AA2019a
Rise of an empire: analysing the high diversity of the earliest sauropodomorph dinosaurs through distinct hypotheses	2019	Historical Biology	AA2019b
A paraphyletic 'Silesauridae' as an alternative hypothesis for the initial radiation of ornithischian dinosaurs	2020	Biology Letters	AA2020a
The first ornithosuchid from Brazil and its macroevolutionary and phylogenetic implications for Late Triassic faunas in Gondwana	2020	Acta Palaeontologica Polonica	AA2020b
Astragalar anatomy of an early dinosaur from the Upper Triassic of southern Brazil	2020	Historical Biology	AA2020c
A new theropod dinosaur from a peculiar Late Triassic assemblage of southern Brazil	2020	Journal of South American Earth Sciences	AA2020d
Olfactory acuity in early sauropodomorph dinosaurs	2021	Historical Biology	AA2021a
An additional specimen of owenettid procolophonoid from the Middle Triassic of Southern Brazil	2021	Acta Palaeontologica Polonica	AA2021b
On the presence and shape of anterolateral scars in the ontogenetic series of femora for two early sauropodomorph dinosaurs from the Upper Triassic of Brazil	2022	Paleontological Research	AA2022a
Oldest dinosauromorph from South America and the early radiation of dinosaur precursors in Gondwana	2022	Gondwana Research	AA2022b
The closest evolutionary relatives of pterosaurs: What the morphospace occupation of different skeletal regions tell us about lagerpetids	2022	The Anatomical Record	AA2022c

Source: devised by the authors.

Subsequently, we retrieved the Introduction sections from those 22 articles to analyze these sections in terms of how the information is organized textually. We followed the CARS model proposed by Swales (1990; 2004; Swales; Feak, 2012) to understand the macrostructure organization in the Introduction. In order to guide the reading and the identification of moves and steps, we developed a database containing typical linguistic evidence of the Introduction (Swales, 1990; Swales; Feak, 2012; Nattinger; Decarrico, 1992). In order to provide reliability in our analysis, the results were also checked by CAPPA/UFSM's former director, who is an expert in the field of Paleontology. Next, we present and discuss the results.

3. Results and discussion

In this section, we report and discuss the results of the analysis of the macrostructure of the sections entitled "Introduction" retrieved from CAPPA/UFSM's academic articles. This way, 22 sections were investigated. To do so, we relied on Swales' (1990; 2004; Swales; Feak, 2012) CARS model and its rhetorical moves and steps. Move 1 (M1) aims at presenting the field of knowledge in which the research is situated. This move is divided into two steps: 1a and 1b. Step 1a is considered optional, and it seeks to demonstrate the relevance of the field somehow. On the other hand, Step 1b is classified as obligatory. Its objective is to review previous studies the researchers consider important to ground their new research. Examples 1 and 2 represent Steps 1a and 1b, respectively, with emphasis on linguistic evidence:

Example 1
(1a) The morphology of the ankle **is a particularly interesting topic** on the evolutionary history of Archosauria. (AA2020c)

Example 2
(1b) **As stated by Raath (1990) '**only once the limits of intraspecific variation have been established can the real taxonomic significance of morphological character suites be assessed**'.** (AA2017c)

Move 2 (M2) shows the motivation for the study by indicating a knowledge gap, questioning a predetermined knowledge, or by continuing previous research in order to produce further knowledge. This move is thus considered obligatory. Example 3 presents M2, with emphasis on linguistic evidence:

Example 3
(M2) **However**, one of the main **constraining factors** in such studies is **the scarcity of** complete and well-preserved dinosaur remains. (AA2015b)

In Move 3 (M3), a proposal is outlined, whether to fill the gap exposed in M2 or to continue research traditions. M3 is divided into five steps. Step 3a is the only one classified as obligatory, and it aims at indicating the main objectives and/or characteristics of the new research. Though Step 3b is optional, it may occur in some disciplines. It seeks to list research inquiries, such as questioning or hypotheses. Similarly, Step 3c is likely to appear, for example, in academic articles that do not present an abstract prior to its Introduction. This step focuses on reporting the new research main results. Step 3d is also considered optional, but it can be representative for some disciplines such as Biomedicine, in which it is necessary to assert the importance of discovering a new vaccine, for instance. Lastly, Step 3e aims at explaining how the academic article is organized in terms of its remaining sections (Swales, 1990; 2004; Swales; Feak, 2012). This step may be found in articles from disciplines which organize the information differently from the usual IMRD structure. Examples 4, 5, 6, 7 and 8 represent some examples that illustrate Steps 3a, 3b, 3c, 3d, and 3e, respectively, with emphasis on linguistic evidence:

Example 4
(3a) **In the present study**, **I reconstruct** the morphospace occupation of distinct skeletal portions of avemetatarsalians **to investigate** the distribution of lagerpetids regarding the morphospace area of pterosaurs. (AA2022c)

Example 5
(3b) **For instance,** is *D. gigas* closer to the North American species of the genus than to other South American forms**?** (AA2018b)

Example 6
(3c) **Its small size suggests that** it belonged to an immature individual. (AA2017c)

Example 7
(3d) **This is the first study** focused on the olfactory acuity of early sauropodomorphs and **intends to provide a background to further discussion** of the sensory systems of these dinosaurs. (AA2021a)

Example 8

(3e) [...] the disparity between the femora of *D. romeri* and *T. hallae* **is compared with** those produced from ontogenetic variance in other dinosauromorphs. **In addition, some comments are included** following recent discoveries regarding lagerpetids. (AA2017b)

By analyzing the rhetorical moves and steps in the Introduction sections, we noticed that some steps occur in all the academic articles – M1b, M2 and M3a –, while others are suppressed. Nonetheless, we found information that does not seem to fit the rhetorical moves and steps devised by the CARS model (Swales; Feak, 2012), as Example 9 shows, with emphasis on linguistic evidence:

Example 9
The study is based upon a new nearly complete individual of *P. chiniquensis* from **the municipality of** Dona Francisca (central region of Rio Grande do Sul State, southern Brazil). **The specimen** (Fig. 1) **is housed at** the Universidade Luterana do Brasil **(ULBRA-PVT-281). It comprises** a **large complete skull and a partial postcranial skeleton**. (AA2016a)

In Example 9, we identified that the authors present a brief description of the objects of study of the new research (e.g. details on the fossil, explanation about the site where the fossil was collected and the site where it is stored for analysis). In other words, the authors seem to anticipate information that is usually revealed in the Methods section. The occurrence of this "atypical" rhetorical move can indicate one of the specific characteristics of the discipline of Paleontology, which is elucidated in the academic articles written by the members of CAPPA/UFSM. Chart 4 summarizes the occurrence of rhetorical moves and steps found in the samples.

Chart 4: Occurrence of rhetorical moves and steps in the samples

Code of the article	Rhetorical move/Step								
	M1a	M1b*	M2*	M3a*	M3b	M3c	M3d	M3e	Other**
AA2015a		X	X	X					X
AA2015b	X	X	X	X					
AA2015c		X	X	X					
AA2015d		X	X	X					
AA2016a	X	X	X	X					X
AA2017a	X	X	X	X	X				
AA2017b		X	X	X				X	X
AA2017c	X	X	X	X		X			

AA2018a	X	X	X	X			X		
AA2018b	X	X	X	X	X				
AA2018c		X	X	X	X				
AA2019a	X	X	X	X					
AA2019b		X	X	X				X	
AA2020a	X	X	X	X					
AA2020b	X	X	X	X					
AA2020c	X	X	X	X					
AA2020d	X	X	X	X					X
AA2021a	X	X	X	X			X		
AA2021b		X	X	X			X		
AA2022a	X	X	X	X					
AA2022b	X	X	X	X					
AA2022c	X	X	X	X					
Occurrences	15	22	22	22	3	1	3	2	4

*Rhetorical moves and steps established as obligatory in Swales' CARS model.
**Rhetorical move that does not fit the CARS model.
Source: devised by the authors.

Our findings reinforce the obligatoriness of M1b, M2 and M3a in Introduction sections of academic articles (Swales; Feak, 2012). Besides that, the results suggest that the presence of M1a is significant, since it was found in 15 of 22 samples. The least frequent steps identified in the samples are those classified as optional in Move 3, and the "atypical" rhetorical move that does not fit the CARS model. This is related to the fact that the genre is heterogeneous and relatively stable, which implies these moves and steps may be found more frequently in some disciplines than in others (Swales, 1990; Swales; Feak, 2012). To exemplify the rhetorical organization of the Introduction sections in the articles of CAPPA/UFSM, the sample AA2022b is presented as follows in Chart 5.

Chart 5: Example of rhetorical organization in the Introduction section of AA2022b

Paragraph	Move – Step	Linguistic evidence (emphasis by us)
1	M1b	**The origin and early evolution of dinosaurs are well-documented** in Triassic beds from South America (**Novas**

		et al., 2021). **The oldest unequivocal dinosaurs have been excavated** from the mid-late Carnian strata from Ischigualasto Formation and Candelária Sequence from Argentina and Brazil, respectively (**Colbert, 1970; Sereno et al., 1993; Langer et al., 1999; Ezcurra, 2010; Martinez et al., 2011; Cabreira et al., 2016; Pacheco et al., 2019**). **In addition, older deposits from Argentina** (i.e., Chañares Formation) **yielded the most informative and taxonomically diverse fossil record** of dinosaur precursors (**Romer, 1971; Bonaparte, 1975; Sereno & Arcucci, 1994; Ezcurra et al., 2020a; Agnolín et al., 2021**). [...]
	M2	**Conversely**, coeval deposits from Brazil **have no unambiguous evidence** of the group (Schultz et al., 2020), **leaving a large gap** in their potential biogeographic distribution (Marsola et al., 2019). [...]
	M1a	The Chañares Formation from Argentina **represent a key unit regarding the investigation** of the tempo and mode of early dinosaur evolution and **is one of the main sources for these studies** (**Novas et al., 2021**).
	M3	**Here, we describe** the first dinosauromorph from the Middle Triassic sediments (Pinheiros-Chiniquá Sequence; Horn et al., 2014) of Brazil **and explore its implications** for the evolution and biogeographic distribution of the group.

Source: devised by the authors.

Comprehending the genres produced by a particular discourse community is extremely important, not only in unraveling the essence of their collective values, but also in delineating the objectives they share. The ramifications of this study are diversified i.e. it serves as a guide for both aspiring researchers who seek to integrate CAPPA/UFSM and the existing members, helping them to become aware of the interrelation that exists among knowledge, language and academic context – the very relationship that shapes genres (Motta-Roth, 1998).

Furthermore, the significance of this research goes beyond the immediate comprehension of the contextual and textual aspects of the discursive genre: it casts a broader influence on the investigated discipline of Paleontology as well as on our field of research, Applied Linguistics. Our study also has the potential to be applied as a theoretical and a methodological subsidy on English for Academic Purposes (EAP) studies, since the findings presented here show factors related to specific linguistic features of the Introduction sections of academic articles from Paleontology.

Therefore, the insights unveiled in this investigation can be helpful for those who wish to explore and comprehend how language constitutes the genre in different fields.

Final Remarks

This article was oriented towards a comprehensive investigation into the rhetorical organization of the Introduction sections of 22 academic articles from the field of Paleontology, which were written in English by the members of CAPPA/UFSM. To conduct the textual analysis, we followed the structure guidance offered by Swales' (1990; 2004; Swales; Feak, 2012) CARS model. Hence, our study aimed at identifying and categorizing the rhetorical moves and steps that shaped these Introduction sections. The information contained in the Introduction sections demonstrated a coherence that fits those moves and steps that are outlined within the CARS model, thus aligning the investigated samples with the general conventions of the genre. In spite of this, we also found some discrepancies, such as the suppression of certain steps and the anticipation of methodological insights, which sheds light on the dynamic interaction between form and content in these academic articles.

The theoretical and practical implications of our research are towards both theoretical and practical dimensions, with an impact on the field of Applied Linguistics. Particularly, this study aligns with the approaches of Genre Analysis and English for Academic Purposes and provides a framework that can be assimilated into these investigations. Considering the context of production of the samples analyzed here, we expect the results of our research may be helpful for providing the development of linguistically oriented didactic materials. Thereby, it would be possible to assist both the members of CAPPA/UFSM and researchers from other disciplines in the process of writing Introduction sections of academic articles.

Thereby, further studies are still required in terms of investigating both contextual and textual features. For instance, experiential insights of the members of CAPPA/UFSM could reveal the intricacies of their academic writing practices, elucidating their main difficulties during these processes. This could be achieved through an interview. Besides, a descriptive analysis of the other sections of the same 22 samples would be fruitful to expand the understanding of

disciplinary variations presented in the rhetorical structure of these academic articles from the field of Paleontology.

Informações complementares:

a) Declaração de contribuição das autoras e dos autores:

As duas autoras participaram igualmente dos processos que envolveram o planejamento, a escrita e a revisão do presente manuscrito, o qual se originou dos resultados da pesquisa de mestrado de Nathieli Cipolat Cervo, sob orientação de Patrícia Marcuzzo.

b) Disponibilidade de dados de pesquisa e outros materiais:

As análises que sustentam este estudo estão disponíveis em https://repositorio.ufsm.br/handle/1/28006 .

c) Declaração de conflito de interesse:

As autoras declaram não haver conflitos de interesse.

d) Avaliação por pares:

✓ **Avaliador 1:** Esther Maxine Trew (correções obrigatórias)

O artigo está muito bem apresentado de forma organizada e clara, cumprindo seu objetivo.
Alguns aspectos que não interferem na compreensão, mas que valem ser considerados:
- na bibliografia: Argamon; Dodick estão citados com a data 2004 e na Bibliografia consta 2005; Langer, Ramezani e Darosa estão citados com a data 2018 e nas Referências consta 2022. Outra observação é que as referências onde estão mencionadas as consultas à bibliografia estão em português: "acesso em" e "disponível em".
- quanto à forma, vemos algumas questões que não impedem a compreensão mas que seriam sanadas com uma revisão. Por exemplo: na linha 2 da introdução, o trecho "in the Paleontology" - o "the" é provavelmente a interferência do português; na parte Final Remarks, a expressão "In the sense of", no segundo parágrafo e "In this sense", no terceiro também parecem ser uma interferência do português, entre outras ocorrências.
- a referência ao curso de Engenharia Civil deveria ser Civil Engineering e não Civil Engineer.

✓ **Avaliador 2:** Silvia Matravolgyi Damião (aceitar)

Artigo bem estruturado e metodologicamente consistente. Sugiro uma revisão no uso de vírgulas ao longo do texto e de alguns poucos itens linguísticos (assinalei alguns nos comentários).

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