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Analysing reference and conjunction and their evaluative meaning in business texts: Grounding for a DDL pedagogy

Olfa Ben Amor & Faiza Derbel

Abstract

Previous studies have highlighted the importance of cohesive devices and non-finite clauses in business writing, noting their frequency in academic discourse and the differences in how novice and journal writers use them (Alyousef 2016; Fischer & Glanzer 1986). This paper outlines the process of compiling and analysing a teacher-made corpus based on the selection and analysis of Business English Texts extracted from academic business research articles, and students' theses. To extract non-finite clauses which include cohesive devices and determine common features of the business register, the corpus was explored applying Hunston's (1989) evaluation parameter of relevance and Halliday and Hassan's (1976) concept of cohesion. The analysis reveals significant cross-generic differences in the frequency of conjunctions and reference markers, with coordinating conjunctions being most prevalent in the sub-corpus of novice Tunisian academic writers. Building on these results, the evaluative aspect of these structures is examined further, with a focus on Hunston's parameter of relevance. The findings indicate that, while Tunisian writers tend to use content markers that enhance the clarity of their evaluation, journal writers employ more complex and nuanced arguments which strengthen their authority and persuade the reader. Based on these findings, the researchers argue that using corpus linguistics tools to highlight business genre writing techniques and, particularly, through the lens of cohesion and relevance evaluation, can be instrumental in preparing instructional materials to be employed in a Data-Driven Learning (DDL) Business English course destined for Business students. The paper is concluded with a discussion of the pedagogical implications of using teacher-made corpora in DDL and suggestions of alternative methods of presenting and using genre-based corpora as a content base for teaching these students cohesion in Business English texts.

Keywords

Non-finite clauses; cohesion; reference and conjunction; relevance parameter; business English, DDL

Introduction

Producing coherent and cohesive texts is essential for effective communication, particularly in academic settings. Considerable attention has been given to the types of cohesive devices used by

EFL and ESL learners, focusing on grammatical and lexical cohesive devices across various registers (Bahaziq 2016; Crossley et al. 2016), including business register (Alyousef & Alnasser 2015a,b; Johns 1980). However, few studies have investigated the use of cohesive devices at the level of non-finite clauses, which are more inherently cohesive according to Givón's (2001) hierarchy (Givón 2001) because they are a sign of tight cohesion between successive clauses (Jisa 2000). Non-finite clauses, including infinitives, gerunds, and participial phrases, allow writers to create connections between sentences. However, the absence of explicit conjunctions can sometimes obscure connections between ideas. To ensure clarity and maintain coherence, cohesive devices may still be necessary to signal relationships between clauses and enhance the flow of complex information.

In the business writing context, where precision is paramount, the effective use of non-finite clauses which include cohesive devices can significantly improve reader comprehension (Fischer & Glanzer 1986). Research indicates that while grammatical cohesive devices like reference and conjunction are commonly employed (Ali 2016; Bahaziq 2016), there is a notable underuse of non-finite clauses by EFL learners (Granger et al. 1997). Employing non-fine clauses at the appropriate level can streamline communication and strengthen the overall coherence of the text.

Considering the importance of mastering these structures to Business and Management students, the teacher (one of the two authors) chose to devise a corpus-based instructional plan with focus on non-finite clauses which include conjunctions and reference markers. The attempt which starts with the construction of a teacher-designed "instructional corpus," is motivated by the conviction that teachers can equip and empower learners with the necessary knowledge about these structures in a DDL teaching mode in the hope of inspiring them to produce more cohesive and effective professional writing in class and beyond (in real-life communication and ultimately the workplace).

This paper starts by reporting on the construction and analysis of a Business English (BE) teacher-made corpus that integrates published academic business research articles and MA dissertations and PhD theses completed by Business students (henceforth student

theses). A key part of the analysis consists of the identification of non-finite clauses that include cohesive devices (reference and conjunction) as described in section 1.1. That is, focusing mainly on reference and conjunction and by drawing on Halliday and Hasan's (1976) framework of semantic cohesion, as mentioned. In addition, the exploration of the corpus puts a particular emphasis on the evaluative meaning of these structures. That is, it seeks to reach an understanding of how the evaluation of non-finite clauses with cohesive devices can reveal the strategies employed by accomplished and novice writers to convince readers of ways to establish their authority as research writers. This is particularly relevant when writers evaluate the content of their propositions or assess parts of the discourse within a piece of writing/text.

To analyse the evaluative meaning of these structures, the authors resorted to Hunston's (1989) third parameter of relevance. Relevance, in Hunston's sense, denotes the extent to which the content of a proposition is deemed significant, useful, or applicable within a given context. When deployed, it highlights the significance of the information presented in texts. This framework informed the corpus annotation and analysis process.

In this paper we will (i) describe the corpus compilation and analysis procedures and (ii) describe the outcomes of applying the syntactic, semantic and functional properties encoded in non-finite clauses headed by reference and conjunction as outlined in the framework. Then based on the researchers' discussion of the possible adoption of this teacher-designed "instructional corpus" for classroom application we will recommend adopting the DDL mode in teaching writing for professional and business communication purposes. In view of our motives and rationale for undertaking this project, we find ourselves at the intersection of corpus linguistics, systemic functional linguistics (SFL), and DDL and, as such, developing a useful framework for understanding language use as a foundation for preparing an instructional corpus as input enhanced by corpus tools and presented to learners for autonomous exploration in a DDL class.

In the forthcoming section, we review previous and on-going studies on the intersecting themes in this study, i.e., cohesion, the use of conjunction and reference as cohesive devices, non-finite clauses,

evaluation in relevance markers, and the application of these elements in the business register. As we intend to exemplify the integration of DDL, we will review previous applications of DDL in various educational settings.

1. Literature review

This section aims to provide a comprehensive analysis of existing and ongoing research related to cohesion, focusing on the use of conjunctions and reference as cohesive devices which occur in non-finite clauses, evaluative strategies in relevance markers, and the application of these elements across the business register and other genres. This section also delves into the application of corpus linguistics towards the creation of learner corpora and their integration in a DDL scheme in the context of teaching BE.

An important consideration when writing in English, and more specifically while producing BE texts, is the need for the meticulous preservation of style and text unity (Johns 1980). “Texture”, as suggested by Halliday and Hasan (1976), is the feature that imparts unity to the text and sets it apart from a non-text. This unity, they argue, is achieved through the strategic use of cohesive devices. The latter enables writers to interconnect the ideas and convey information with clarity and precision. This implies that one element presupposes the existence of another, creating thus what Halliday and Hasan (1976) call a semantic tie. As illustrated in Example (1) below, the second sentence establishes coherence in the sense that the pronoun *they* can only be decoded as referring to *multinationals from developed countries*:

(1) *Multinationals from developed economies are more likely to be exposed to strict environmental laws. They, presumably, have cleaner technologies.*

A semantic tie is achieved whereby *they* as a pronoun refers to the preceding noun phrase as an antecedent for its interpretation. Moreover, Halliday and Hasan (1976) distinguish between grammatical and lexical cohesion in the sense that, while lexical cohesion involves the choice of vocabulary, grammatical cohesion includes grammatical items such as substitution, ellipsis, conjunction, and reference.

While falling under the umbrella of Halliday and Hassan's (1976) framework, the scope of this paper is however limited to cohesion as related to the use of reference and conjunction as grammatical cohesive devices. Our rationale for directing attention to reference and conjunction stems from evidence supplied by researchers (Ali 2016; Alyousef 2016, 2021; Bahaziq 2016) that these features are prevalent in written discourse. We will refer in details to Alyousef's (2016) work as a case in point given its comparable focus on business students and its emphasis on grammatical cohesive devices, particularly reference and conjunction.

Alyousef (2016) analysed the use of cohesive devices across two multimodal data sets, comprising student texts and two tutor model texts pertaining to the theme of marketing plans. Reference and conjunction emerged from his analysis as the most prevalent categories among grammatical cohesive devices. More specifically, reference constituted the predominant category occurring at a rate of 8.6 instances per 100 words in the tutor texts, ranking thus as the second most prevalent category in student texts at 10.6 instances per 100 words. Conjunctions followed registering 3.50 and 3.58 instances per 100 words. This pattern contrasts with the sporadic employment of other grammatical cohesive devices such as substitution and ellipsis, which accounted for fewer than two instances per 100 words in student texts. A key insight from Alyousef's (2016) study is the dominant use of reference and conjunction as cohesive devices in the business context, underscoring their important role in creating coherence in marketing plan texts. This focus highlights the importance of these devices in both student and professional business writing. While Alyousef's study (2016) focused on multimodal discourse analysis within tertiary marketing texts, specifically analyzing texts written by international undergraduate students at King Saud University, other studies examined different types of discourse features ranging from business (Johns 1980), finance (Alyousef & Alnasser 2015a) and management and accounting (Alyousef & Alnasser 2015b), they reached similar conclusions about the dominance of reference and conjunction in structuring texts.

Therefore, while the corpora and analytical methods and disciplines varied, consensus is built over the critical role of

reference and conjunction in achieving textual cohesion, particularly in academic discourse. This convergence of results reinforced our interest in delving into these cohesive devices as a central feature of effective communication across different genres and registers. Considering this established finding, a thorough examination of reference and conjunction at the clause and clause complex level merits scholarly attention. This will serve as foundation for the selection of input to be presented to students of BE writing. We, as practitioners and researchers, wish to contribute further to building the case for pedagogically-oriented research which can serve as knowledge base in adopting DDL. A two-lockstep strategy is followed: First, we will conduct an exploration of a BE text corpus, focusing on the conjunctive and reference markers that appear in non-finite clauses, and analyzing their respective meanings within a business context. We will then draw on the results of the analysis to make recommendations to propose a DDL instructional plan focusing on these structures as learning objects aiming to raise awareness about their authentic use that can lead to their mastery by students of BE, future producers of their own texts.

The following section defines key cohesive devices, specifically reference and conjunction as necessary background for developing an understanding of how these elements play a fundamental role in linking ideas and maintaining the coherence of a text. By examining how reference and conjunction are used, this section aims to provide a clear understanding of their functions within academic writing.

1.1. Cohesive devices

According to Halliday and Hasan (1976), cohesion refers to the semantic connections that link different elements within a text. A text is considered cohesive when these interconnected elements collectively convey meaningful and coherent information to the reader. Halliday and Hasan (1976) divided cohesion into lexical and grammatical cohesion, further categorizing grammatical cohesion into four types: reference, substitution, ellipsis, and conjunction. The focus in this study is on reference and conjunction, which will be defined in detail in the following sections.

1.1.1. Reference

As a grammatical cohesive device, reference is about retrieving the referential meaning, which is sometimes expressed by personal pronouns, demonstratives and comparatives (Halliday & Hasan 1976). There are two reference categories; first, situational reference (i.e., exophoric), which refers to a referent in the context of a situation (see Example 1 below); and second, the endophoric reference, which refers to a textual reference, in itself subdivided into anaphoric (see Example 2) and cataphoric reference (see Example 3).

- (1) *Look at that beautiful painting*
- (2) *After conducting a thorough market analysis, **the team** identified key trends. **They** incorporated these trends into their strategic planning*
- (3) *By employing innovative strategies, companies can gain a competitive edge. **Implementing these tactics** requires careful consideration.*

In the case of the above examples, the pronoun "*They*" is an anaphoric reference, as it refers back to the previously mentioned subject "*the team*". Similarly, "*implementing these*" in Example 3 refers to the *tactics* in the following sentence. Indeed, endophoric reference is of direct relevance to this study as pronouns, modifiers, quantifiers, determiners, and demonstratives require a larger segment of discourse (Quirk et al. 1985), and hence, they are recurrent within non-finite structures. The second type of grammatical devices are conjunctions.

1.1.2. Conjunctions

Conjunctions, on the other hand, are inherently cohesive, and encode semantic relations that Halliday and Hasan (1976) classified under four categories comprising (i) temporal relation (e.g., *until*, *before*), (ii) adversity (e.g., *however*, *despite*), (iii) addition (e.g., *and*, *or*), and (iv) causal relation (e.g., *thus*, *thereby*). These categories can explicitly or implicitly perform the role of connectives between clauses including non-finite clauses (Halliday & Matthiessen 2014) as illustrated in the examples below: While the

cohesive markers in Example (4) are explicit, these are to be inferred from the context in Example (5).

- (4) *The company conducted market research, thus identifying investment opportunities by analysing data.*
 (5) *Streamlining processes enhance efficiency, reducing overall costs.*

To sum up, reference and conjunction play an important role as cohesive devices which contribute to the overall coherence and clarity of a text. The next section will outline the criteria for selecting non-finite clauses as focus of the instructional plan in this study, highlighting their relevance within the framework of textual cohesion

1.2. Non-finite clauses

The three types of non-finite clauses will be the focus of this study, as outlined in the introduction: (i) To-Infinitive clauses (ii) ING clauses and (iii) Past participle clauses. Semantically, these non-finite clauses have distinct meaning. While the to-infinitive clause often conveys notions of futurity and potentiality (Egan 2008; Wierzbicka 1988), the -ing clause indicates simultaneity and progressivity (Quirk et al. 1985; Wierzbicka 1988). The past participle clause reflects a completed action or event (Langacker 1991). The distinct meanings conveyed by non-finite structures, which also signal coherence relations between propositions—such as in the subject control properties, the tense and aspect patterns of participle clauses relative to their matrix clauses, and the semantic functions of adjunct clauses (Green 2017)—can pose a significant challenge for business students, where the demand for precision and clarity in communication is paramount.

In addition to their different meaning, these non-finite clauses are highly frequent in written discourse (Biber et al. 2000, 2011; Quirk et al. 1985). As attested by Biber et al. (2000), non-finite clauses constitute more than 50 % of clausal attributes in academic prose. These clauses are also inherently complex and as such challenging for learners (Parrott 2023; Petrovitz 2001), leading to avoidance and underuse as evidenced by analyses of learner corpora (Granger et al. 1997; Yang 2014). This phenomenon, corroborated by recent studies (Casal & Lee 2019; Shadloo et al. 2019), serves as a distinguishing

factor between advanced written academic discourse and lower-rated student writing. Biber et al. (2011) showed that the complexity of non-finite clauses arises not only from the structural formation but also from the function these clauses serve, such as modifying nouns or acting as complements, which demands a high level of grammatical control and precision that learners often struggle to master. Thus, it presents a particular challenge for learners transitioning to advanced writing styles.

1.3. Relevance markers

Since the study focuses on the use of non-finite clauses that include reference and conjunctions across two different genres (research articles and student theses), the analysis of this corpus needs to be focused on discerning similarities or variance, if any, in the use of reference and conjunction within non-finite clauses and explore their evaluative use as it can provide various ways of signalling the writers' options in expressing their stance and evaluation in the propositions made. For instance, consider the following example extracted from our corpus of Journal Articles (JA)

...however, rather than being a uni-directional progression, it is feasible to conceptualize it as a dynamic, iterative process that involves continuous feedback loops and adjustments based on evolving market conditions and stakeholder needs.

It can be gleaned from an examination of the example above, that the use of an -ing clause (*being a uni-directional progression*), -ed clause (*based on evolving market conditions*), a contrastive conjunction (*rather than*), and reference (*it*), strengthens the writer's stance by endorsing a flexible, adaptable approach which is more effective in managing reporting on evolving conditions.

To analyse evaluative language in non-finite clauses including reference and conjunction, Hunston's (1989) framework of evaluation is adopted as it outlines three functions of evaluation that identify the object being evaluated (status), the value given to the object (value), and the relevance of parts of the text (relevance). The relevance dimension is the focus of text analysis in this paper. It is a

metalinguistic function that can be stated by relevance markers assessing as such the significance of the text (Hunston 1989). The examples below illustrate the significance of parts of the text indicating their relevance, whether for the information given (content-oriented), as demonstrated in Examples (6) and (7), or for organizing and highlighting sections relevant to the overall argument or proposition (structure-oriented), as seen in Examples (8) and (9).

- (6) *However, our viewpoint is that current International Business theories are **a useful starting point to explain** the internationalization process of sharing economy firms.*
- (7) *So, it is **perhaps worth noting** that our models allow for this possibility as well*
- (8) *For this test we **begin by estimating** a logit model*
- (9) *We **build on the contributions described above to develop** more specifically three distinct themes in our analysis*

Assessing the *International Business theories as a useful starting point* in (6) and the proposition made in (7) as *worth noting* since they serve to assert their importance while ensuring cohesion with conjunctions like *however* and *so*. Examples (8) and (9), however, mark the relevance of the following (i.e., prospective), or preceding text (i.e., retrospective) (Hunston 1989). While Example (9) gives value to the preceding text “*the contributions described above*”, example (8) marks the relevance of beginning with “*estimating a logit model*”. In other words, prospective and retrospective relevance markers are used as evidence of ensuring text unity (Hunston 1989). In one sense, both types of relevance, evaluation of content (Examples 6 and 7) and part of the discourse (Examples 8 and 9), not only assign relevance but also ensure cohesion.

As already mentioned in section 1.1.2, the conjunctive markers in the evaluation of content can be left implicit, more particularly with temporal and causal sequences (Halliday 2004, 548). For example, where the relation is one of cause explicitly expressed in the sentence, *in order to increase sales, companies must enhance their marketing efforts*, it is left implicit in *Taken together, customer feedback and sales data indicate a need for enhanced marketing*

efforts. Considering the occurrence of implicit conjunctive relations, these are included in the analysis. Thus, exploring the strategic use of reference and conjunction (implicit and explicit) within the structures of non-finite clauses across genres may offer insights into the linguistic features that contribute to the cohesion and coherence of academic discourse.

Previous studies have investigated the expressions of evaluative language in academic writing (Charles 2011; Hyland 2005) including business register (Agbo & Odinakachi 2024; Le 2004). However, to the best of our knowledge, studies on the evaluative use of reference and conjunction within non-finite clauses in academic business writing are scarce if not non-existent. The following section delineates the types of genres and registers used in the corpus.

1.4. Business register and genres

In line with Systemic Functional Linguistics (SFL), language varies across contexts through the concepts of genre and register (Halliday & Matthiessen, 2014). Register refers to language use shaped by context, encompassing field, tenor, and mode. Registers in academic and business writing are, in contrast, characterized by formal language and impersonal constructions tailored to specific audiences (Hyland 2005). The research articles and student theses used in the study, viewed as genres of academic and professional writing, employ formal registers to convey scholarly findings and arguments. However, they differ significantly in terms of their intended readership, the specific purposes they serve, the requirements they must fulfil, and the range of skills and depth of knowledge they are expected to demonstrate (Paltridge 2002; Swales 1990; Thompson 2012). Based on Swales' (1990) analysis, the specificities of theses as genres are characterized by an overuse of metadiscoursal expressions including reference and conjunction. As confirmed by Swales (1990), novice writers of theses tend to help direct the readers in some way rather than informing them (Swales 1990). Similarly, Hyland (2005) analysed metadiscoursal expressions in 240 theses written by EFL students at five Hong Kong universities and found an overuse of hedges and transitions, followed by "evidentials" (references to sources of information from other texts). Research articles, on the other hand, are "complexly distanced

reconstructions of research activities” (Swales 1990, 175) where more experienced writers do not simply narrate investigations.

A considerable number of research studies investigated the use of cohesive devices in business context, ranging from students’ academic writing in the business and economic context (Alyousef & Alnasser 2015a; Johns 1980) to published research articles in marketing and management (Hyland 2005; Mur-Dueñas 2012). These studies highlighted the importance of cohesive devices in business writing. While Conjunctions link ideas, guiding readers through information, reference maintains continuity and helps writers avoid redundancy (Bhatia 1993; Halliday & Hasan 1976). Indeed, the effective use of these devices enhances clarity and facilitates reader comprehension in the business communication (Fischer & Glanzer 1986). Notably, investigating the use of reference and conjunction at the non-finite clause level within the business context remains an underexplored area. Thus, this study is pertinent in this context of teaching BE.

1.5. Business register in the Tunisian context

In response to the spread of English as a *lingua franca*, Tunisian Business and Management students, as argued by Abdeljaoued and Labassi (2021), are more in need for recognizing and mastering the conventions governing the use of English in their discourse communities if ever they aspire to develop voice and visibility as researchers on the periphery. Postgraduate Tunisian students studying business genres, including the ones we are concerned with in this paper, encounter challenges in writing cohesively. As demonstrated by Enneifer (2021) and Knouzi (2016), the students in their respective studies have been diagnosed as facing challenges in finding the appropriate linker, organization of ideas, and mother tongue interference, which affect their ability to create well-structured and coherent texts. A common issue encountered by business students is the incorporation of non-finite clauses headed by conjunctions and reference devices (Ben Amor & Derbel 2020), which can hinder the clarity and coherence of their business communications.

As recommended by Stoller & Robinson (2015) and Swales & Swales (1990), and Rüschoff (2018) to name only a few, students of BE can develop a better understanding and awareness of the target

language through exposure to authentic business and economics texts as authentic examples of the discipline-specific target genres. Thus, this paper suggests that, in view of the outcome of the analysed texts in the corpus, a data-driven instructional plan with special focus on teaching non-finite clauses headed by reference and conjunctions can be conceptualised and potentially used with these students in a DDL mode.

1.6. Data-Driven Learning

Data-Driven Learning (DDL) is a term coined by Johns (1991) which is a didactic approach to language learning that leverages authentic language data, typically extracted from corpora, to allow learners to explore and analyse linguistic patterns on their own. Essentially, DDL is about bringing a corpus to the classroom, enabling learners to have hands-on practice with real language data in their studies.

It is hoped that by exposing students to authentic instances of reference and conjunction within non-finite clauses, they may be empowered with the competence to understand the complex structures in business texts, fostering in this way a more profound comprehension of the complexities inherent in such discourse. Our objective in this study is to compile a corpus of BE texts as pedagogical input/support material to be used with students of BE adopting a DDL instructional mode. A purposefully built, contextualised and discipline-specific corpus can be a promising teaching tool (Charles 2022; Crosthwaite et al. 2019; Liu 2023) which is particularly helpful in raising the students' awareness of aspects of language use in BE while engaged in data-driven learning activities.

Previous studies (Crosthwaite et al. 2019; Liu 2023) indicate that designing a DDL course which integrates a purposefully-built corpus query and data visualization platform into a writing program can be promising. Crosthwaite et al. (2019) confirmed the effectiveness of their DDL attempt by tracking over 11,000 individual corpus queries from 327 students, analyzing usage patterns, query syntax, and the frequency of specific functions to assess student engagement and autonomy in using the platform. They were able as a result to confirm that DDL had a positive impact

on students' writing. They recorded improved learner autonomy and the students' ability to independently generate and explore queries beyond the provided materials. Liu (2023) used a custom-made corpus learning platform for 83 learners of cross-border e-commerce English in the context of vocational colleges and found that the experimental group outperformed the control group in writing product descriptions, highlighting the value of using specialized corpora and corpus-based pedagogy for ESP learners. Building on this body of research, the teaching activities prepared for use during the DDL class in this study are based on a compiled corpus made of research articles and student theses in the hope of helping the teacher direct the learners' attention to the use of reference and conjunction in non-finite clauses as well as their evaluative use. If learners "own" them, we believe, these can be part of their future repertoire as users of the BE genre in their specific field of study and future careers.

Therefore, motivated by the studies reviewed above, showing the frequent use of conjunction and reference markers in the business context, this study sought to explore how authors of research articles and Tunisian post-graduate thesis writers compare at the level of their use of non-finite clauses which include conjunctions and reference markers in terms of syntactic structure and evaluative meaning. In light of the results to emerge from this analysis, the authors wish to propose, as a follow up, pedagogical solutions to address the challenges to novice writers revealed from the comparison of the two types of writers.

2. Methodology

This section outlines the methodology adopted in this study, beginning with a description of the corpus used for analysis. Next, the procedures for analyzing non-finite clauses headed by conjunctions and reference markers are presented, followed by an explanation of how these structures are evaluated for their meaning. Finally, the annotation and data retrieval techniques employed in the study are discussed, emphasizing the steps taken to ensure consistent analysis.

2.1. Corpus description

This study analyses business English texts of published research articles of journal authors (JA) and Tunisian student theses (TD). To

this end, a specialized corpus in the domain of business English was compiled comprising academic texts. A balanced distribution of texts was considered while compiling the corpus. For instance, the percentage of texts which make up the Tunisian student theses are proportionally smaller (=20) than those collected from published research articles (=49) due to the length and number of words of the former (see Table 1).

Table 1: Size of the corpus

| Genre | Content | N of texts | N of words |
|-----------------------------|--|------------------|------------|
| Journal articles (JA) | <i>The Journal of Financial Economics</i> <i>The Journal of International Management</i> <i>The Journal of Monetary Economics</i> <i>The Quarterly Journal of Economics</i> | 49 texts | 597,387 |
| Student theses (TD) | Banking/Finance/Economics/Management | 14 MAs 6 PhDs | 526,338 |
| Total N of words= 1,123,725 | | | |

The sub-corpus of student theses was collected from five different Tunisian institutions based on convenience sampling and with the consent of the students concerned who signed a form electronically. Once the different texts were downloaded, the corpus of 1,123,725 words was obtained as shown in Table 1.

2.2. Analysis of non-finite clauses headed by reference and conjunction

This study focuses on the use of non-finite clauses classified into two categories: (i) pronominals (including pronouns) followed by to-infinitive, -ing and -ed clauses, and (ii) conjunctions (additive, adversative, causal, and temporal) followed by to-infinitive, -ing and -ed clauses.

The non-finite clauses headed by conjunctions are divided into three patterns to facilitate the annotation and identification of these patterns within the corpus and to make the subsequent analysis task manageable. The corpus was annotated following this classification.

Table 2 details the conjunctions involved in each pattern (P) of non-finite clauses (NF).

Table 2: Patterns of non-finite clauses headed by conjunctions

| Non-Finite Pattern | Conjunctions |
|--------------------|---|
| NFP1 | as; but; although; in order to; and |
| NFP2 | as if; rather(than); less (than); except; whether |
| NFP3 | though; when; either; until; while |

2.3. Evaluative use of non-finite clauses

As outlined in Section 1.3, non-finite clauses in the current framework are sub-divided into two relevance functions: evaluation of content and evaluation of part of the discourse as outlined in Table 3.

Table 3: Types of relevance markers in this study

| Relevance function | Relevance markers |
|--|--|
| Evaluation of content | Assignment of significance Adversative (avowal/contrastive/correction) Additive (explanation/extension) Causal-expressions (purpose/result/reason/conditional) Temporal (sequential/simultaneous) |
| Evaluation of part of discourse | <i>we start/begin</i> <i>by/ we proceed then/ we pass</i> <i>as shown/illustrated/given/ one point/ finally/</i> <i>ultimately/ eventually/initially/ <WF>above</i> <i>/not<WF> here/put forward/ so to speak/</i> <i>briefly/generally/roughly/strictly speaking</i> |

The evaluation of content emphasizes the functional roles of conjunctive markers, categorizing them into additive, adversative, causal, and temporal types to better illustrate how they connect ideas and contribute to the evaluation of the content of the discourse. The evaluation of parts of discourse includes relevance markers that can

be retrospective, in which the cohesion is anaphoric, or prospective, where cohesion is cataphoric. The label *<WF>* (see Table 3) refers to any word form that can precede or follow the expressions that evaluate part of the discourse. The corpus was annotated according to this framework. More details of the annotation system are delineated in the following section.

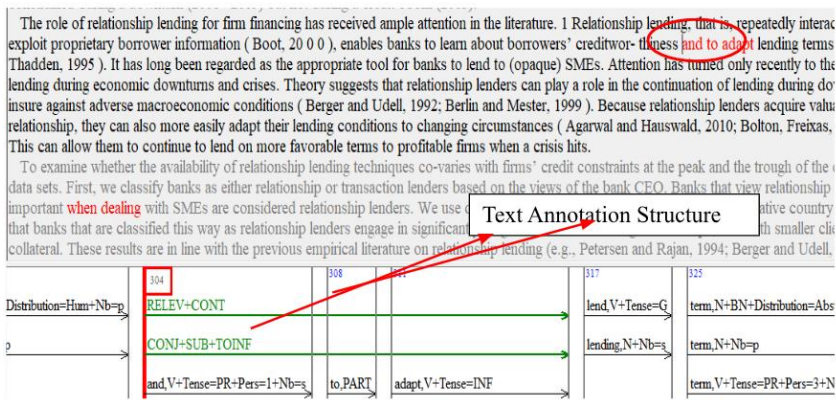
2.4. Annotation and data retrieval procedures

The large amount of data in the present corpus requires software tools to help process them. To this end, *NooJ* software package (Silberztein 2020) was used to carry out the parsing and tagging process of the corpus and the automatic extraction and identification of the non-finite constructions with their cohesive devices. Concerning the accuracy (precision and recall) of *NooJ* software, it was found to be acceptable (cf. Ben Amor & Derbel 2020).

The retrieval of data is based on using a cascade of transducers that automatically recognize syntactic and evaluative patterns of non-finite clauses headed by conjunctions and reference markers. These are represented with specific composition operations of automata in graphs (i.e., transducers) involving Part of Speech tagging (POS), and functional parsing (Silberztein 2020). Figure 1 illustrates an example of applying POS tagging (e.g., Verb, Adverb, Noun), syntactic parsing, and evaluative function which determine the non-finite structure and function of the clause.

As shown in Figure 1, the additive conjunction “*and*” followed by to-infinitive “*to adapt*” in the text is identified as a conjunction followed by to-infinitive (CONJ-SUB+TOINF) and functioning as an evaluation of content (RELEV-CONT) displayed in green by the annotation system (Text Annotation Structure). The black annotations come from *NooJ*’s lexical parser. An advantage associated with *NooJ* software is that it treats the non-finite structure as a single unit, since it is primarily informed, in its electronic dictionaries and local grammars by the various lexico-grammatical units that collocate to form them.

Figure 1: NooJ application of corpus tagging and parsing



The analysis of the data follows a frequency-based approach which compares the sub-corpora in the frequency of occurrence of cohesive devices (conjunction and reference) within non-finite clauses along with their evaluative aspects (content and part of discourse). The results and examples from the corpus are discussed in the following section.

3. Results and discussion

This section describes and discusses the results of the frequency distribution analysis of non-finite patterns governed by conjunctions and reference markers. Subsequently, an analysis of the frequency of evaluative patterns is performed and presented below, accompanied by illustrative examples extracted from the corpus to underscore their potential application.

3.1. Frequency of non-finite patterns with conjunctions

The results of the frequency of the three non-finite patterns that include conjunctions (NFP1; NFP2; NFP3) occurring in the Journal Articles (JA) and Tunisian student MA and PhD theses (TD) sub-corpora are illustrated in Table 4.

Table 4: Frequency of non-finite patterns with conjunctions

| sub-corpora | | NFP1 | NFP2 | NFP3 |
|-------------|------------|---------|-------|--------|
| JA | freq (pmw) | 1524.75 | 75.21 | 235.79 |
| | Mean | 31.11 | 1.53 | 4.81 |
| TD | freq (pmw) | 1339.30 | 24.62 | 191.77 |
| | Mean | 66.96 | 1.23 | 9.58 |

Higher mean scores are found in the first pattern NFP1, which include *and*, *as*, *but*, *although*, and *in order to*. NFP1 is the most frequent one in the JA sub-corpus, with 1524.75 occurrences per million words (pmw), but more concentrated in certain texts in the TD sub-corpus, as indicated by a higher mean occurrence per text (M= 66.96). NFP2 including *as if*, *rather(than)*, *less (than)*, *except* and *whether* is more common in the JA sub-corpus, both in overall frequency and mean occurrence per text. Similarly, NFP3, which includes *though*, *when*, *either*, *until*, and *while* shows a higher frequency in the JA sub-corpus, but the mean occurrence is higher in the TD sub-corpus (M=9.58), indicating an uneven distribution of this pattern.

The study of the corpus has also revealed that the most frequent conjunction in the TD is *in order to* with a normalized frequency of more than a thousand occurrences per million words (Norm Freq=1037.35pmw). When examples from the TD Sub-corpus are examined, the use of the conjunction "*in order to*" to denote purpose is predominant. This result coincides with an observation made by scholars like Whelpton (2002) who highlighted the nuanced disparity between purpose and rationale. While the purpose refers to the specific goal or objective that someone wants to achieve through an action (see examples 1 and 2), the rationale refers to the underlying reasoning or justification for why a particular action is taken (see examples 3 and 4).

TD sub-corpus

- (1) *So, in order to become faster, a pre-processing feature selection task was executed*
- (2) *We thus can work with the above formula in order to calculate the representative values of each security*

JA sub-corpus

- (3) *In order to shed further light on that issue, we employ the theoretical perspectives*
- (4) *In order to eliminate this effect, we repeat each round of simulation 1000 times.*

The examples above often feature conjunctions of result such as "so" as found in example (1) and "thus" in example (2) used redundantly alongside "in order to," accentuating the purposive clause, a pattern that contrasts with the examples sourced from the JA sub-corpus. As illustrated in examples (3) and (4) taken from the JA sub-corpus, the use of "in order to" predominantly signifies the rationale of the writer, commonly occurring in initial position. Therefore, while journal authors in the JA rely solely on "in order to" to emphasize the rationale, demonstrating a more sophisticated understanding of how to convey complex reasoning in academic writing, Tunisian writers in the TD emphasize the meaning of purpose, supplementing it with other conjunctions or phrases to make it explicit. This approach prioritizes clarity and simplicity, ensuring that the reader easily understands the immediate intention without delving deeper into more nuanced reasoning.

The results in the current study show that the conjunctions observed in the first pattern (NFP1) are widely used in academic writing (Biber et al. 2000). They are regarded as key tools for establishing syntactic cohesion in EFL texts, a conclusion supported by numerous studies in both ESL and EFL contexts (Biber et al. 2000; Jalilifar 2008; Modhish 2012). For instance, the use of the coordinating conjunction *and* followed by -ing appears to have a strong association score (MI3 =15.5) in the TD and a comparatively higher frequency (>100times pmw) than the journal authors in the JA. These tendencies indicate that Tunisian writers rely on simpler, more familiar structures and as a result may lack variety in conjunction usage that journal writers employ to convey more precise relationships between ideas. This finding is corroborated by that of Taieb and Toumi (2022), who not only found an overuse of transitional bundles by Tunisian graduates, but also an infelicitous use of the bundle *as well as*, often mistaken for a synonym of *and*.

Other conjunctions, occurring in the second pattern (NFP2: *as if*, *rather (than)*, *less (than)*, *except*, *whether*) and third pattern (NFP3:

though, when, either, until, while), are less frequent, but tend to have a high MI3 scores, highlighting the co-occurrence of these conjunctions with non-finite clauses. These conjunctions can imply temporal, conditional, concession, or circumstantial meaning, and employed in non-finite clauses as a means of “syntactic compression” (Quirk et al. 1985, 995), and valued by the two genres of academic discourse as advocated by Biber et al (2000). Yet, this does not necessarily capture a common stylistic preference for the two genres.

The adverbial conjunction *when* in NFP3 has nearly the same association score in the academic sub-corpora with 10.2 in JA and 10.3 in TD. Research article writers use both -ing clauses and past participle clauses after *when*, allowing them to clearly distinguish between simultaneous actions and completed events. Novice writers, however, rely solely on -ing clauses, limiting their ability to express temporal relationships with the same precision. This can be explained by the observation that academic writers often employ more complex sentence structures, including non-finite clauses, to express nuanced relationships between ideas and to maintain a formal, sophisticated tone (Chafe & Danielewicz 1987; Yang 2014).

3.2. Frequency of non-finite patterns with reference

Regarding the use of reference markers, pronouns have figured prominently across the corpus. The types of pronouns found in the corpus are object pronouns (*us, them, him* and *it*) mostly post-modified by to-infinitive clauses as displayed in Table 5.

Table 5: Frequency of non-finite patterns with reference

| Sub-corpora | List of pr+ toinf | Norm freq | MI3 |
|--------------------------|-------------------|-----------|-------|
| JA | | | |
| >100 times per 1 million | us | 140,61 | 17.6 |
| >50 times per 1 million | them | 60,26 | 14.6 |
| >10 times per 1 million | it | 15,06 | 5.7* |
| TD | | | |
| >50 times per 1 million | them | 89,29 | 15.7 |
| | us | 91.19 | 17.12 |
| >10 times per 1 million | it | 26,59 | 7.2 |
| | him | 15,19 | 10.7 |

The results indicate that the most frequently occurring first-person object pronoun (*us*) is found in the JA, occurring more than

100 times pmw (140.61pmw) with a strong MI3 score (MI3=17.6), while *them* and *it* also appear but with lower frequencies (60,62 pmw and 15,06 pmw). In contrast, the TD sub-corpus shows *them* as the most frequent pronoun, with *it*, *him*, and *us* following at varying rates. Most of these references in the TD are endophoric; i.e., presumably recoverable from the text. The pronoun *it* is used less frequently in the two sub- corpora with lower MI3 scores where it occurs anaphorically.

The frequent use of the object pronoun *us* in the JA sub-corpus is expected, as it aligns with findings from various studies highlighting the strong presence of authors' voices when addressing their arguments within their disciplinary communities (Hyland 2001, 2002; Kuo 1999). A closer look at the use of *us* in the JA sub-corpus, it can be noticed that the most frequent pattern is the use of the verb <allow> followed by *us* + to-infinitive (e.g., *this allows us to use the model*). This use of an exclusive first-person pronoun (Quirk et al. 1985, 1466) is a display of an authoritative professional persona (Hyland 2001). Thus, this pattern with verbs like *allow*, *permit*, *enable*, *help*, and *motivate* (e.g., *this allows/motivates/permits/enables/helps us to-infinitive*) help build credibility of authors and demarcate their work from that of others (Hyland 2005).

The results suggest that the high frequency of to-infinitive clauses with first-person plural pronouns in students' academic writings (TD), despite the sub-corpus being single-authored, can be partly attributed to the influence of Tunisian L1 or French rhetorical conventions. The first-person plural pronoun *we* is used 4,526 times per million words (pmw) in the TD, primarily with verbs such as *focus* (*we focus our attention to study*), *have* (*we have to distinguish*), *need* (*we need to make sure*), and *propose* (*we propose an approach based on*). This may indicate an influence from French where there is preference for the use of *on* or *nous* as an authorial *we*, where the author refers to himself alone using the plural pronoun (Fløttum et al. 2006). French academic articles avoid the use of singular first person pronoun *I* (*je*) and opt more for plural person pronoun *we* (*nous*) (Carter-Thomas & Chambers 2012; Hartwell & Jacques 2014). This may explain the absence of the first-person singular pronoun *I* and its other cases in the TD sub-corpus as opposed to texts produced by journal writers in the JA.

This section elucidated frequency-based findings regarding non-finite patterns governed by reference and conjunction, revealing notable disparities rather than similarities between novice Tunisian writers and journal authors. However, a comprehensive examination of the evaluative meanings embedded within these patterns is necessary to either confirm or refute these disparities.

3.3. Frequency of evaluative non-finite patterns: Relevance markers

The results of the evaluative relevance patterns, both content and discourse markers, are reported in Table 6. The mean scores related to the evaluation of content are found to be much higher across the corpus than those of the discourse.

Table 6: Frequency of the evaluative relevance markers

| sub-corpora | | Relevance-content | Relevance-discourse |
|-------------|------------|-------------------|---------------------|
| JA | freq (pmw) | 2639,59 | 222,43 |
| | Mean | 53.86 | 4.53 |
| TD | freq (pmw) | 3442,55 | 100,53 |
| | Mean | 172.12 | 5.02 |

Table 6 shows that the Tunisian sub-corpus appears to host the bulk of content evaluation with a mean score of 172.12 and a normalized frequency of more than 3442 pmw. The predominance of content markers in the Tunisian sub-corpus may reflect the emphasis given by novice writers to guiding the reading process by incorporating conjunctions. The mean scores of the journal writers, on the other hand, are found to be far less (53.86) with a normalized frequency of 2639,59 pmw. Concerning the discourse relevance markers, the normalized frequency is found to be lower in the TD (100,53 pmw). These discrepancies, however, cannot determine if a significant difference exists between the sub-corpora. To test whether there is a difference between journal writers and Tunisian novice writers in the way they evaluate content and discourse, a non-parametric Mann-Whitney U test is used. Table 7 provides *p*-values (Asymp. Sig. 2-tailed) for comparing content and discourse relevance across the two sub-corpora: JA and TD.

Table 7: Results of comparing the sub-corpora in the use of relevance markers

| | Relevance- content | Relevance- discourse |
|-----------------------|------------------------------|-------------------------|
| JA vs. TD (tailed) | Asymp. Sig. (2- 0.000 | 0.484 |

The results displayed in Table 7 indicate that a significant difference exists between the JA and TD in terms of using content evaluation ($p < 0.00$). However, for discourse relevance, the results show a statistically non-significant difference, as p -value is above 0.05, indicating that discourse relevance is relatively similar across the academic sub-corpora.

Evaluating content is the standard way of indicating the relevance and novelty of the propositions being made by the writers (Hyland 2005). It can be noted that the difference between Tunisian novice writers and journal writers resides in how they evaluate the content of their propositions to signal novelty and relevance (see Examples 1 and 2 below).

(1) *The study aims to analyze the data **in order to** compare the results **and to** identify potential limitations **as well as to** suggest areas for further research.* (TD)

(2) ***To explore the data thoroughly**, the study employed a mixed-methods approach. **With this in mind**, it also sought **to** provide a comprehensive understanding of the findings, **seeking to** uncover patterns that could inform future research directions.* (JA)

In Example 1 Tunisian writers opt for more clarity basing their arguments and claims upon the organization of ideas through the overuse of additive markers (*and*, *as well as*) and by signalling relationship between propositions by indicating the purpose (*in order to*). The research article writers, in Example 2, use a variety of other content markers. For instance, to indicate purpose, research article writers use the initially positioned to-infinitive clauses, and other implicit purposive phrases such as *with this in mind*, making the evaluation of their content appear more strategic. By guiding the

reader in this way, the writer assumes the role of a knowledgeable guide, subtly leading the reader to the intended conclusions. This reinforces their position as an expert who is in control of the narrative rather than merely describing events or observations. Such phrases add a layer of persuasiveness to the writing, as they signal that each step of the argument is purposefully constructed to achieve a specific goal. This makes the argument more compelling and convincing to the reader.

When zooming in on other types of content markers used by the writers in the two academic genres, differences did emerge. Taking the example of *thus* -ing result clauses (*thus providing support*), the latter is frequently used in academic prose as demonstrated by Hyland and Jiang (2017) and it is accordingly used by the research article writers in the JA more frequently. In Example 3 below, *thus* -ing clause occurs in initial position. The initial position of *thus* -ing clause highlights the logical flow of ideas.

(3) *This approach enhances the validity of the findings by minimizing potential biases. **Thus, controlling the nested group factors as well as the foreign affiliate factors** are helpful to understand the relationships among variables.*

[JA]

As corroborated by Charles (2011), punctuation plays a role in producing this effect, as the full stop before the adverbial causes the reader to pause, briefly slowing their reading pace and drawing more attention to the linker. This use strengthens the logical coherence of the argument, helping to bridge the gap between analysis and outcome while reinforcing the writer's authority and command over the material (Charles 2011).

Unlike the journal writers who often use sentence-initial adverbials to emphasize the logical sequence of their arguments, Tunisian writers in the TD showed a stronger preference for content markers that highlight temporal relationships and reasoning. They frequently employed temporal expressions such as *while*, *after*, and *before*, as well as causal markers like *since*, *the reason to*, and *the reason for*, to structure their writing (see Example 4 and 5 below).

(4) **While** analyzing the initial results, further complexities were revealed **after** completing the second phase. [TD]

(5) **Since** failing to yield significant results, the method was adjusted **to** improve its effectiveness. [TD]

While this method ensures clarity and a strong connection between cause and effect or time-related events, it may not fully leverage the rhetorical potential of sentence-initial *thus* -ing clause to control the pacing and emphasis of the argument. By relying on temporal and causal markers, the Tunisian writers might unintentionally limit their ability to create more complex and layered arguments that are characteristic of expert academic writing. This method mirrors the style found in the TD, where such markers are commonly used to create a clear and straightforward narrative flow. Indeed, when assigning significance to the content, journal writers use a wide array of phrases as highlighted in the examples below. Tunisian novice writers, however, adhere predominantly to a singular structure exemplified by the use of *worth* followed by verb and -ing (as found in example 6).

JA corpus

- (1) **Returning to a point emphasized** in the introduction...
- (2) In this regard, **a point to be noted** will be that social capital has far broader implications
- (3) With these caveats in mind, **our findings are relevant for assessing** the role of income taxation for macroeconomic stabilization
- (4) our empirical findings imply that **there may be scope to better manage** the inherent conflict of interest
- (5) **this paper makes a contribution shedding light on** the potential role of the decline in start-ups in productivity dynamics
- (6) **Two features of our data are worth highlighting.**

In terms of discourse evaluation, a similarity in the use of discourse markers across the two sub-corpora suggests a cross-genre consistency. Among the discourse markers that are mostly used in academic sub-corpora are the endophoric markers (*as shown, as illustrated, as noted*) and other phrases referring to discourse acts

(*we start/begin by, we proceed then, so to speak*). These discourse markers serve to reference previously mentioned information within the text, thereby enhancing coherence and guiding the reader through the argumentation process. The study highlights that these markers not only signal transitions but also reinforce the evaluation of the discourse by the writer, indicating confidence or authority over the presented information. This reflects a broader trend in academic discourse where the organization of ideas is as important as the content itself (Hyland 2005).

3.4. Concluding remarks

The findings reached in the present study reveal interesting differences and similarities in terms of the use of conjunction and reference and evaluative relevance within non-finite patterns between the two sub-corpora. First, it was noted that Tunisian writers show a tendency to overuse the patterns involving conjunctions (such as *but* and *in order to*) followed by the “to-infinitives” and -ing preceded by “*and*” more frequently than research article writers. Learners tend to rely more on the most distinctive and salient phraseological norms such as *in order to determine the relationship*, *but to achieve these results*, and *using (quarterly) data and adopting (dynamic) models*. This finding is congruent with several other studies (Cortes 2004; Lu & Deng 2019; Pérez-Llantada 2014), which pointed to the extensive use of ready-made sequences and bundles in novice writers’ academic texts. Among these studies, Pérez-Llantada (2014) included the business discipline alongside 12 other sub-disciplinary fields of research. In contrast, Cortes (2004) and Lu and Deng (2019) studies focused on disciplines such as biology, history, and science and technology. Despite the diversity of disciplines represented in the studies, the findings consistently indicated a ubiquitous use of ready-made sequences.

Second, the findings on Tunisian students’ use of personal pronouns in their writing point to a tendency to avoid first-person pronouns or to misuse the exclusive plural “*we*”. This may stem from a misunderstanding of the role of personal pronouns in academic writing, where pronouns can enhance clarity and help engage the reader (Hyland 2005). Postgraduate students need to develop a deeper understanding of the strategic use of pronouns. According to Hyland (2005), general personal pronouns like the inclusive “*we*,”

"*our*," and "*us*," serve to emphasize the relevance of the discussion and connect it to the shared experiences of both the readers and the writer. This use aligns with the reader's expectation of inclusion and solidarity while addressing them as participants in the argument. Moreover, employing first-person pronouns helps to build credibility by establishing a clear authorial presence (Hyland 2001). Thus, students must recognize that pronoun usage is a deliberate choice that enables the writer to adopt a particular stance and construct a contextually situated authorial identity (Hyland 2001).

Thirdly, the findings related to comparing the writing of Tunisian novice and more experienced research article writers, indicate significant differences in their respective use of content markers. While novice writers rely heavily on additive markers (e.g., *and*, *as well as*) and purpose indicators (e.g., *in order to*) to prioritize clarity and straightforwardness, this may compromise variety in style and depth in their writing. In contrast, research article writers demonstrate a more sophisticated command of content markers, employing a range of purposive phrases (e.g., *with the aim of*, *to this end*) and result clauses (e.g., *thus providing support*) that enhance the complexity and richness of their arguments.

These findings are inspiring as they point to the gap in the novice writers' knowledge about the rules governing academic writing and the range of expressions and bundles which may contribute to achieving their communicational goals. As pointed out in Abdeljaoued and Labassi (2021), Tunisian writers need to enhance their rhetorical skills and the ability to express evaluative meanings effectively in academic writing. Developing critical thinking and a stronger authorial voice are essential for meeting international publication standards and ensuring publication.

3.5. Recommendations

The findings highlighted above inspire us to propose three courses of action for teaching BE as genre in writing classes directed to graduate and post-graduate students in Tunisia:

In order to develop in novice writers the skills we outlined above, academic writing instruction should focus on the appropriate and varied use of cohesive and relevance markers, emphasizing the balance between authorial presence (Hyland 2005) and the level of

formality expected in different academic sub-genres. Teachers can help students navigate the conventions of academic writing more smoothly by providing explicit guidance and practice opportunities. One way is to ensure they adapt their usage to meet the specific expectations of various genres such as research articles and student theses (Hyland 2005).

Previous studies have demonstrated that DDL can facilitate learning transfer as evidenced by learners' ability to notice linguistic patterns and transfer their corpus observations to their own writing. Chen and Flowerdew (2018) highlight the value of corpora in aiding Hong Kong postgraduate students to transfer their receptive language skills to productive use. Similarly, as reported in several of her studies, Charles (2004, 2011, 2014, 2022), trained research students to develop discipline-specific corpora and observed gradual improvement in their academic writing. This can be the way ahead. Fellow teachers among our readers may wish to replicate the strategies used and described in Sections 2.2, 2.3 and 2.4 to produce their own corpus in the prospect of creating materials to be used in the DDL-based classroom. The procedures involved may require teachers to prepare for the technical aspects of tagging the corpus, ensuring it is properly annotated and prepared for a user-friendly student exploration to perform scaffolded tasks.

In addition, teachers may consider designing awareness-raising tasks to facilitate exploiting the "instructional corpus" in DDL lessons applying the principles of active learning. For instance, teaching activities may involve learners in an exploration of the corpus which specifically raises their awareness of the nuanced structure(s) utilized in evaluating content and part of discourse across various genres. Awareness-raising teaching activities are based on the assumption that, by helping learners notice certain language patterns in authentic contexts, their awareness will improve, leading to better learning (Lee et al. 2019; Schmidt 1993; Shi 2014).

Conclusion

This paper reported on how a teacher-compiled corpus of Business English texts can be a solution to innovating the teaching of academic writing to advanced students of Business and

Management illustrating how it can be deployed pedagogically in a DDL mode of instruction. The instructional plan is to help learners notice the interaction between grammatical and lexical choices with evaluative functions, which are quantified to highlight significant cross-generic differences in the frequency of content and discourse markers. This solution is meant to address the gap in novice Tunisian academic writers' theses which show increased usage of content markers and a greater tendency to use ready-made sequences, which differ from those used by journal writers.

The analyses on which the corpus is based underscore the potential of incorporating concepts of cohesion and relevance evaluation as teaching aims, particularly in the ESP context, thereby empowering learners to engage more directly with a discipline-specific corpus elucidating the underlying phraseology and applying it in their academic writing. The potential of integrating corpus-based approaches, informed by linguistic frameworks into language teaching methodologies can offer valuable insights for educators seeking to enhance the teaching of Business English allowing a more nuanced understanding of genre-specific linguistic features.

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