

Rhythmic Complexity of Graduate Students' Written Assignments: An Analysis of Their Thematic Choices

Nujood Al-Reshaid

Department of English Language and Translation, College of Arabic Language and Social Studies, Qassim University, Buraydah, Kingdom of Saudi Arabia

Ahmad I Alhojailan*

Department of English Language and Translation, College of Arabic Language and Social Studies, Qassim University, Buraydah, Kingdom of Saudi Arabia

Abstract—The majority of the work on academic writing has focused on methods to analyse students' views of and attitudes towards writing. However, research on students' perceptions of the impact of their choices on the clarity and quality of their texts remains scant. This study used a content analysis approach to analyse graduate students' written assignments across academic genres to understand their thematic choices, and the choices' rhythmic effects and communicative functions. Further, it employed a grounded theory approach to examine students' perception of the effect of their thematic choices on their assignments' rhythmic complexity. Inspired by Martin and Rose's (2007) semantic approach to Systematic Functional Linguistics, the study analysed 108 written assignments and conducted semi-structured interviews with 18 students. According to the findings, the assignments commonly included topical and unmarked themes, and students used different types of themes to control the rhythmic complexity and structure of the texts. Additionally, students used different thematic structures to achieve different communicative objectives, which in turn motivated them to use complex thematic patterns. Finally, students' perceptions were affected by their writing proficiency, academic and genre knowledge, linguistic background, stylistic preferences, and learning experiences.

Index Terms—Rhythmic complexity, SFL, graduate students, writing, thematic choices

I. INTRODUCTION

Writers often have a rough idea that determines the formulation and organisation of their texts (Ma, 2021). In several academic disciplines, the rhythm (i.e. the flow of information) of these ideas seems to be associated with certain patterns that are culturally identified as academic. Understandably, their texts contain meanings, ideas, and information that writers seek to communicate within the framework of a particular academic discipline. Halliday and Hasan (1985) asserted that the context in which information unfolds is encapsulated in the text "through a systematic relationship between the social environment on the one hand, and the functional organization of language on the other" (p. 11). In other words, writing a selection of words, sentences, and paragraphs is not enough. It is equally important to consider the rhythm (flow of information) of the text. Thus, academic writers shape their conceptions and interpretations of certain ideas by making choices regarding content, organisation, illustration, and language (Kain, 2005).

The current literature on academic writing particularly focuses on methods to analyse students' perceptions of and attitudes towards writing (e.g., Mateos & Solé 2009). However, studies on students' perceptions of the effect of their choices on the clarity and quality of their texts remain scant. Regarding writers' thematic choices, Martin and Rose (2007) argued that "rhythm in discourse may have several layers", which can be referred to as "waves" (p. 188). Indeed, the predictable patterns associated with particular academic genre play a crucial role in determining the hierarchical organisation of these waves. Thus, only on intuitive grounds, most EFL (English as a foreign language) graduate students conceive the production of a coherent academic text as a greater task that is more complex than it appears. In fact, some EFL graduate students are not aware of the importance of the rhythmic effect of their thematic choices on the construction, organisation, and interpretation of their ideas beyond their intended meaning. These multidimensional aspects of the flow of information which might be affected by some underlying patterns of written or spoken language can be described as 'rhythmic complexity'.

Thus, assessing the functional considerations of EFL students' thematic choices and their perceptions of the importance of these choices on the rhythm of their texts is essential to understand the rhythmic complexity of their

* Corresponding author. Email: a.alhojailan@qu.edu.sa

writing performance. Consequently, analysing their written texts can offer insights to help EFL students enhance the awareness of the rhythmic effect of their choices.

Particularly, this study examines the following research questions:

- What type of thematic choices do EFL graduate students use in their writing assignments?
- To what extent do EFL graduate students' thematic choices affect the rhythm of their writing performance?
- What are the communicative functions of the thematic choices made by EFL graduate students?
- How do EFL graduate students perceive the rhythmic effect of their thematic choices on their writing performance?

II. LITERATURE REVIEW

A. *Rhythmic Complexity and Thematic Choices*

According to the theory of Systemic Functional Linguistics (SFL), the structure of a clause embodies three strands of meaning: a message, representation, and an exchange (Halliday, 2014). Specifically, this study focuses on the first meaning, that is, a clause as a message—also known as the thematic structure. According to Halliday, the thematic structure of a clause encompasses two functional elements: theme and rheme. Theme is "the point of departure for the message. It is the element the speaker selects for "grounding" what he is going on to say" (Halliday, 2014, p. 83). Theme is a major aspect that represents how language users construct their messages to smoothly unfold linguistic events, and it is the starting point of the clause that tells the readers "what the text is about" (Thompson, 2014, p. 165). Theme plays an important role in "the logical development of ideas and information" (Park & Nam, 2015, p. 68).

Thematic choices may be influenced by the writers' perceptions of an assignment's requirements. Kim (2020) emphasised that the learners' perception of a task may "shape and reshape their various rhetorical choices as well as their selection of resources and strategies" (p. 3). Thus, the perception of a particular writing task (i.e. task representation) may orient students to choose a particular set of rhetorical patterns which, in turn, affect their linguistic choices. Kim (2020) indicated that L2 writers "engage with guessing and develop their network of resources to get feedback to adjust their interpretations of the task assigned, and negotiate these task representations accordingly" (p. 15).

B. *The Flow of Information in SFL Approaches*

According to Park and Nam (2015), SFL is "a theory of language as a system of meaning that focuses on the function of the language: how it is used to create and convey meaning with linguistic resources" (pp. 67–68). SFL is mainly concerned with linguistic choices that influence the flow of information (i.e. the rhythm), which in turn affects the communication of the message and determines the semantic path of the text.

(a). *Martin and Rose's (2007) Semantic Approach*

Regarding the regularity of the flow of information, Martin and Rose (2007) opined that periodicity—as an unfolding process of a discourse's structure—is mainly concerned with "the way in which meanings are packaged" and facilitates the readers' comprehension (p. 187). Thus, it can be argued that a clause is a wave of information and its prominent part is known as a theme. As Hawes (2015) explained, the linguistic term for "the structuring of given and new information is thematisation" which "involves the positioning of information in a clause" (p. 94).

It is important to note that themes can be classified into topical, textual, and interpersonal themes depending on their meta-function (Halliday, 2014). Specifically, topical themes can be headed by textual, interpersonal, or both themes. Textual and interpersonal themes are considered as natural themes because they are "thematic by default" (Potter, 2016, p. 4). Thus, they are optional, whereas topical themes are obligatory. A topical theme can function as a full Theme, whereas textual and interpersonal themes function as part of a Theme (Potter, 2016).

Textual themes usually "constitute the first part of the Theme coming before any interpersonal Theme" (Ahangari, 2015, p. 4). They enhance "connectivity between ideas in the text" (Ahangari, 2015, p. 20). As Chang and Lee (2019) noted, textual themes comprise conjunctions (and, or, etc.), continuatives (already, still, even, just, etc.), conjunctive adjuncts (moreover, therefore, etc.), or WH-relatives (who, which, etc.).

On the other hand, interpersonal themes may precede topical themes to express the writers' attitudes and are characterised by vocatives, comment adjuncts (probably, frankly, etc.), finite elements (modal auxiliaries and 'be' auxiliary), WH-question words (where, how, etc.), mood-making themes, and interpersonal metaphors (Chang & Lee, 2019). They can be used to "highlight the speaker's stance" (Alotaibi, 2020, p. 2).

Specifically, topical themes can be classified into marked and unmarked themes. Unmarked themes (the typical use of language) constitute the clause's subjects, which may be preceded by a marked theme. Thus, unmarked theme marks the departure of a clause. For example, 'Ali' in 'Ali submitted his manuscript' is an unmarked Theme and it is an essential part of the clause. Consequently, marked Themes is not regarded as prominent part of texts because it is perceived as the recurrent use of language within a particular academic genre. For example, 'for women' is a marked Theme in 'for women, this stratification seems to be important'.

(b). *Waves of Information*

A clause may contain two overlapping waves: a thematic wave and news wave. The term 'wave' is used to "capture the sense in which moment of framing represents a peak of textual prominence, followed by a trough of lesser

prominence" (Martin & Rose, 2007, p. 189). Periodicity is used to "capture the regularity of information flow: the tendency for crests to form a regular pattern, and for the hierarchy of waves to form a predictable rhythm" (Martin & Rose, 2007, p. 189). Thus, writers use marked and unmarked themes to create a particular rhythm of their texts. Using unmarked themes may promote the continuity of the waves of information, while using marked themes may "...scaffold discontinuity" (Martin & Rose, 2007, p. 192). Marked themes help the writers signal their moves throughout the texts, that is, moving from one phase to another within a particular genre.

At a higher level, the topic sentence (which indicates the discussion) is usually described as the hyperTheme (Martin & Rose, 2007). In several instances, hyperThemes involve an evaluation and provide more detail about their field. Nevertheless, the accumulation of new information is usually distilled into final sentences which are referred to as hyperNew of the phase. "Hyper Themes tell us where we're going in a phase; hyperNews tell us where we've been" (Martin & Rose, 2007, p. 195). The higher-level Themes that predict hyperThemes are known as macroThemes, while higher-level News that are distilled into hyperNews are known as macroNews (see Martin & Rose, 2007).

C. *Thematic Choices as an Effective Strategy for Organizing Texts*

Countless studies have examined the effect of utilising certain thematic choices on the organisation of texts. For example, Ebrahimi's (2016) contribution revealed that unmarked topical themes are frequently utilised across disciplines; however, marked topical themes are mostly utilised in soft disciplines. Further, Ebrahimi found that textual themes are utilised more frequently than interpersonal themes. Similarly, Potter (2016) reported that the most common type of theme in an English declarative clause is the unmarked theme.

On the contrary, Wei (2016b) found that, compared to their American counterparts, Chinese college students tend to use interpersonal themes more than topical themes. They overuse interpersonal themes, which makes their texts more "colloquial" (Wei, 2016b, p. 58). In addition, they tend to use textual Themes as conjunctive adjuncts more than conjunctions. Similarly, Alotaibi (2020) remarked that "the examination of textual themes has shown that conjunctive adjuncts were used more than conjunctions in all groups" (p. 10).

Exploring textual and interpersonal themes in college students' and professional writers' texts, Chang and Lee (2019) concluded that students tend to use interpersonal themes more than textual themes, while professionals adopt a more balanced approach. Similarly, Alotaibi (2020) examined the thematic structure of abstracts in different disciplines and found that all sets of abstracts relied heavily on topical themes, especially unmarked themes, to begin their clauses. This indicates the structural simplicity of the analysed texts (Ebrahimi, 2016). The utilisation of interpersonal themes was "very low in all groups" (Alotaibi, 2020, p. 9).

Communicative Functions of Thematic Choices Across Genres

Thematic choices can be perceived as a method of developing a text that foreground clauses, sentences, paragraphs, or even passages. This has been supported by numerous studies. Jing (2015) stated that "coherence is both text-based and reader-based, which could be promoted by appropriate thematic choices and TP patterns" (p. 185). Specifically, certain thematic choices are utilised to achieve certain communicative functions. Thematic choices in unmarked and marked structures can be used as "persuasive devices to project certain ideological representation" (Potter, 2016, p. 3). These choices fulfil the role of "projecting a particular point of view and conveying a certain message" (Potter, 2016, p. 5).

Examining and comparing thematic choices and thematic progression (TP) patterns, Babaii et al. (2016) concluded that different disciplinary communities have conventional contexts that involve a variety of linguistic "features, with some being more overt than the others, which do not treat a genre exactly like each other as authors reflect their explicit and/or implicit awareness of the discursive norms of their academic communities in their writings" (p. 55). Concentrating on the TP model, Lores (2004) investigated the rhetorical organisation and TP to analyse the organisation of abstracts. He found an undeniable relationship between TP and the rhetorical structure. Similarly, Alyousef (2016) noted that the pattern of TP and composition of information value "facilitate the development of well-structured messages" (p. 486).

D. *EFL Students' Perceptions of Various Aspects of Their Linguistic Choices*

EFL students commonly believe that academic writing should be an impersonal, informational, and objective discourse (Escobar & Fernández, 2017). Additionally, Alhojailan (2021) asserted that students' perceptions of academic writing significantly influence their writing performance. According to him, perceptions are created based on students' knowledge and backgrounds. The examination of students' perceptions is crucial, especially "for the purpose of helping them improve their academic writing skills" (p. 50).

Overall, a review of the extant literature suggests that it is important to explore the independent power of the rhythmic complexity. The additional resonance (i.e., the rhythmic variation that accounts for the special flavour) of the graduate students' written assignments that is overtly influenced by their thematic choices seems to be an important layer of meaning in written academic texts that needs to be considered since it plays a specific function in these texts; however, it is often overlooked. Thus, this study undertakes the said investigation.

III. METHODOLOGY

A. Research Design and Instruments

The researchers used a content analysis approach to analyse the assignments. Content analysis is "a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes, or biases" (Leedy & Ormrod, 2015, p. 275). Further, the researchers integrated a grounded theory into the content analysis approach to understand students' perceptions since it focuses on "a process, including human actions and interactions and how they result from and influence one another" (Leedy & Ormrod, 2015, p. 276).

B. Textual Analysis

108 written assignments, across various academic genres, were thoroughly analysed using Martin and Rose's (2007) semantic approach. The assignments were collected randomly from different students enrolled at different academic levels of the following two master's degree programmes offered at a large Saudi university: Theoretical Linguistics and Applied Linguistics. The participants were native speakers of Arabic.

Alongside the micro-level discourse structure, including sentence-level lexical and grammatical choices, this study also focused on the macro-level choices. This is inspired by Beck and Jeffery (2009), who claimed that generic structures "consist of the macro-level stages that realize key functions within a genre, such as introductions, thesis statements, supporting paragraphs, and conclusions" (p. 233).

C. Interviews

Based on the grounded theory approach, a semi-structured interview protocol was employed for the study. Semi-structured interviews seem to be suitable because they provide a holistic and contextualised perspective on students' writing (Heron & Corradini, 2019).

(a). Participants

Eighteen female Saudi EFL graduate students from different levels were randomly selected for the semi-structured interviews. However, students from level one were excluded because they did not have enough experience in academic writing.

(b). Interview Questions

The interview questions were designed to reflect important facts about the main objectives of this study (e.g., the importance of rhetorical choice-making in the academic context, the relationship between thematic choices and stylistic variations in academic writing, the communicative functions and the effect of their thematic choices).

D. Transcribing and Coding the Collected Data

The interviews were analysed in phases. In the first phase, collected data were transcribed and translated from Arabic to English. In the second phase, the data were coded into relatively homogenous groups in relation to several themes. It is imperative to note here that the transcriptions were triple-checked and reviewed by other people. The translation of the interviews, then, was double-checked by two people specialised in translation.

IV. FINDINGS

A. Types of Thematic Choices

Table 1 summarises the types of thematic choices found in students' writing assignments. It was found that students choose different types of themes and use them as points of departure for their clauses, sentences, paragraphs, and even the text as a whole. As explained below, the students used topical, textual, and interpersonal themes. It should be noted that, thematic elements are presented in boldface throughout the study.

TABLE 1
THE TYPES OF THEMES IN THE STUDENTS' WRITTEN ASSIGNMENTS

Themes	Types of Themes
' In 1978 , Keavney and Sinclair published a paper...'	Topical/marked Theme
' The sample consisted of...'	Topical/unmarked Theme
' Furthermore , they found that students...'	Textual Theme
' Surprisingly , the results indicated that...'	Interpersonal Theme

Themes—which include everything that precedes News—have been highlighted at the peak of prominence at the beginning of each clause. They include the subject of the clause. Thus, unmarked themes/subjects were the most common choice in students' written assignments.

Ideational meanings that usually appear before unmarked themes are referred to as marked themes. Marked themes were also frequently found in students' texts. They play a different discourse function compared to the ordinary unmarked themes (Table 2).

TABLE 2
EXAMPLES OF MARKED AND UNMARKED THEMES

Marked Themes	Subject/Unmarked Themes
'In the EFL context, Mierzwa (2019) has investigated...'	'They employed a range of...'
'Throughout the questionnaire, the main focus was...'	'One of the main controversial issues in the literature of L2 writing is...'
'For example, higher-ability members might...'	'The present paper aims to...'
'It is out of discussion that pronouns are of great significance.'	'Some syntacticians suggest that ellipsis postulate...'

At the higher structural level, discourse can be packaged using large-scale structures known as hyperThemes. Some students tend to use hyperThemes to establish their audience's expectations as mentioned below. The following excerpt is illustrative of the evaluation of hyperThemes. The evaluation has been underlined. In remained of the paper, excerpts have been numbered as A1, A2, and so on, wherein A stands for assignment.

(Excerpt A1)

"ELT in non-native English-speaking nations lacks practicing English in an authentic context."

The student wrote this sentence at the beginning of the paragraph. It is used to direct the audience's attention to a particular topic which is supported, explained, and justified by the following sentences.

In several academic genres, waves of themes may extend beyond clauses, sentences, and paragraphs to larger phases of discourse that reflect a higher level of theme known as macroTheme. For example, title of their papers, chapters, sections, and so on. This analysis hopes to expand the ideational meanings of a text's field. It is constructed through various semantic layers.

B. Rhythmic Effects of Students' Thematic Choices on Their Writing

The recurrent choice of unmarked themes within a particular phase may enhance the connectivity of a discourse which emphasises the stability of the rhythm. In other words, they offer a stable and basic orientation to the field for this particular phase of discourse.

Therefore, unmarked themes do not have a considerable effect on the rhythm of discourse within a particular phase. Unmarked themes are mildly prominent for the flow of the discourse. This can be inferred from the following excerpts.

(Excerpt A2)

"**Many studies** investigated... **They** examined..."

(Excerpt A3)

"**Voiced obstruents** are speech sounds... Otherwise, **voiceless obstructions** block the airflow... **Voiced obstruents** are considered..."

In Excerpt A3, the student used topical, unmarked themes to compare two elements. Therefore, she did not use pronouns as themes to clarify the differences between these elements.

However, the prominence of topical, unmarked themes may not be evident at the lower level in some cases. Some students may use unmarked themes to highlight the topic sentence of their paragraph. For example:

(Excerpt A4)

"**The advent of the Web 2.0 tools** has dramatically revolutionized..."

Conversely, marked themes have a noteworthy effect on the rhythm of the discourse. They were used to highlight particular junctures before the clause's subject. Thus, the effective utilisation of marked themes may serve to contour the rhythm of graduate students' texts. Marked themes can also affect the discourse's discontinuity. They help the writers to move from one phase to another.

It is essential to highlight that the rhythmic complexity of graduate students' texts may be affected by the utilisation of hyperThemes. The efficient use of hyperThemes helps students to enhance the texts' unity and their academic writing proficiency.

Students use different layers of themes to develop their texts. Crucially, these developmental phases are highly sensitive to the staging of the given academic genres. In the excerpt below, the student used a marked theme to re-orient the development of discourse within a particular phase.

(Excerpt A5)

"**As far as the layout is concerned**, Reverso context is designed..."

Similar decisions can also be made to connect the previous paragraph to the new one.

(Excerpt A6)

"**As noted earlier**, Beelinguapp supports..."

Students may choose to precede a sentence with a marked theme to enhance the discourse's continuity and inform the readers that the following sentence/s explain the aforementioned information.

(Excerpt A7)

"**That is**, the distinction between..."

Students may also use marked themes before the justification of the information in the rhematic position to scaffold connectivity.

(Excerpt A8)

"**With the proliferation of diverse digital language learning tools and applications that are associated with mobile learning**, there is an increased competition in developing..."

In some cases, the inappropriate use of marked themes negatively impacts the text's rhythm. Similarly, repetition of the same theme within a particular portion of text may lead to prosaic language. For instance, some students use 'however' or 'accordingly' many times within a particular text.

Using more than one marked theme affects the information's rhythm. As exemplified below, some students use multiple marked themes to enhance the text's meaning.

(Excerpt A9)

"That is to say, despite the prominent presence of technology in this process, and regardless of the social nature of language as an interactive tool, drawing on theories from cognitive psychology..."

Moreover, students use textual themes to enhance the rhythmic consistency and connect the information to the main points in the texts. Textual themes are also used to communicate the intended meaning through predictable and organised patterns. The following excerpt is an example of the use of textual themes for organising the text's rhythm.

(Excerpt A10)

"However, this is far from the whole story."

Interestingly, some students use interpersonal themes to attract the audience at the beginning of a new phase in their text.

(Excerpt A11)

"Luckily, the growth of information technologies had stimulated the development of more creative applications."

Therefore, students tended to use different types of themes to control their text's rhythm. They used topical, unmarked themes to enhance connectivity and introduce new information. Marked themes also emerged prominently in some cases. They were used to introduce new information. Further, interpersonal themes also emerged significantly in students' academic texts. These were used to establish the developmental compositional process of constructing ideational meanings at local and global levels of the discourse.

C. *Communicative Functions of Students' Thematic Choices*

The thematic organisation of students' texts was based on achieving certain communicative goals. As suggested below, understanding the thematic choice's communicative functions highlights the parallels between discourse patterns and rhythmic complexity of students' texts.

(a). *Topical, Unmarked Themes*

Students use topical themes (i.e., marked and unmarked themes) to achieve certain communicative purposes. Some used unmarked, topical themes to explicitly express their ideas.

(Excerpt A12)

"Effective communication necessitates..."

Unmarked themes are used to achieve continuity of ideas. The following excerpt is an example of this situation.

(Excerpt A13)

"One of these studies is Aljafen's (2013) study. **He** found..."

(b). *Topical Marked Themes*

Marked themes are used to signal new phases in a discourse. They can be used to mark a new setting in time or a major shift in participants. Thus, topical, marked themes are used to orient the readers' concentration and move from one phase to another.

Students include macroThemes in their texts to clarify the topic, genre, and area of study. For example, some participants start writing by identifying the title—which can be classified as a macroTheme (Excerpt A14).

(Excerpt A14)

"New Paths for Learning English as a Foreign Language: Focusing on Two Digital Resources"

Surprisingly, some students did not highlight the area of the texts by providing a topic. This negatively affects the text's rhythm.

Students use hyperThemes in different phases to specify the direction of their texts. The hyperTheme entails evaluation (e.g., Excerpt A15).

(Excerpt A15)

"The ever-growing popularity of mobile language learning **brings with it a shift in focus that may influence the role of teachers or trainers.**"

As can be seen below, students use topical, marked themes to highlight other scholars' works that are significant for their analysis. These were used to explicitly state their knowledge and support their hypotheses.

(Excerpt A16)

"As Stockwell (2016) demonstrates, research that scrutinizes..."

As shown in the excerpt below, marked themes are used to clarify other scholars' stances regarding a particular issue.

(Excerpt A17)

"For Colpaert, multidisciplinary and interdisciplinarity did not..."

Moreover, students use marked themes to orient their audience's attention to a particular event, context, or time (e.g., Excerpt A18).

(Excerpt A18)

"When students use a literary text, they are dealing with..."

A general tendency among students is that they use marked themes to highlight the scope of their sentences or paragraphs (e.g., Excerpt 19).

(Excerpt A19)

"Pragmatically, it could mean that..."

Furthermore, students use marked themes to refer to a particular part of the text.

(Excerpt A20)

"In (b), the verb..."

Marked Themes are also used to clarify, explain, or justify information (e.g., Excerpt 21).

(Excerpt A21)

"As a response to the difficulties of teaching and learning writing, some teachers..."

Additionally, marked themes are used to organise arguments and clarify the differences between two or more aspects, ideas, groups, or evidence (e.g., Excerpt A22). In the example below, the utilisation of marked theme signalled the writer's movement from one phase to another.

(Excerpt A22)

"Unlike traditional, individual-focused learning methods, collaborative learning offers..."

Here, the student used marked themes to connect new information with the aforementioned information.

Students tend to highlight the last phase of their texts using several expressions that usually appear at the beginning of sentences and are categorised as marked themes (e.g., Excerpt A23).

(Excerpt A23)

"To sum up, based on the aforesaid potentials..."

(c). *Textual Themes*

Graduate students tend to use textual themes to organise their texts. They are used to organise sentences in a paragraph or the phase as a whole (e.g., Excerpts A24–25).

(Excerpt A24)

"On the other hand, the second parameter is..."

(Excerpt A25)

"First, it is recommended... Second, for the purpose of... Third, studying other types... Finally, identifying more..."

Some students use textual themes to organise the flow of their ideas and include certain requirements of the corresponding academic genres (e.g., Excerpt A26).

(Excerpt A26)

"Thus, the two statements have..."

Textual themes are also used to provide more information about certain topics or situation and organise this information throughout the text (e.g., Excerpt A27).

(Excerpt A27)

"Additionally, it examines..."

(d). *Multiple-Theme Pattern*

Students use more than one type of theme in a particular sentence (e.g., Excerpts A28–29).

(Excerpt A28)

"However, to date, few studies have been conducted on..."

(Excerpt A29)

"Interestingly, in respect to oral acquisition, CM interaction seemed to be..."

In the excerpts above, the students used textual or interpersonal themes followed by topical and marked themes, and subsequently, subject/unmarked themes. This is known as the Multiple-Theme pattern (Alyousef, 2016), wherein students use several Themes that have been gleaned from the information in the rhematic position.

(e). *Interpersonal Themes*

Most interestingly, students use interpersonal themes to highlight their stances, attitudes, and perspectives. In Excerpt A30, the student used 'clearly' as an interpersonal theme. It is an effective strategy to convey the writer's ideas.

(Excerpt A30)

"Clearly, the ease of access..."

Some students use interpersonal themes to orient their audience's attention to particular arguments in their texts.

(Excerpt A31)

"Perhaps most importantly, the best thing about..."

For example, the student in the following excerpt (A31) uses an interpersonal theme at the end of the paragraph to grab the audience's attention.

(Excerpt A31)

"Remarkably, this context-sensitive dictionary offers..."

D. Students' Perceptions of the Rhythmic Effect of Their Thematic Choices on Their Writing

Research questions 1, 2, and 3 were answered by analysing students' texts; however, the semi-structured interviews on the students' assumptions about the rhythmic effect of their thematic choices were used to answer the fourth research question.

(a). Students' Awareness of the Effect of Their Thematic Choices

Some graduate students passionately commented that their thematic choices affect their writing performance (e.g., Excerpt 1, S3). The creative choices can attract the audiences' attention.

(Excerpt 1, S3)

The writer's rhetorical choices affect the audience's reception. For example, when the same information is presented by two different writers, there will be many differences in choices between the two texts. The audience may prefer one text of those more than the other because one writer may have a better rhetorical style than the other. (Interview Transcript, p. 5)

This was supported by most participants, who believed that the utilisation of different themes is an effective strategy used by academic writers to make their text lucid and attractive.

(Excerpt 2, S7)

"Clarity is a worthy, noble purpose. That means to be clear about your goals of writing and ideas presented...with no ambiguity...to make sure that the reader understands what the idea is" (Interview Transcript, p. 14).

(b). Thematic Variation and Academic Style

One student argued that thematic variation may have a considerable effect on the stylistic variations in academic writing.

(Excerpt 3, S6)

"One of the important things that make one person's writing better than another one is these thematic choices" (Interview Transcript, p. 12).

Some students believed that they could use different themes to make their style of writing explicit. Therefore, they assumed that the writers' style is affected by their choice of various themes (e.g., Excerpt 4, S1).

(Excerpt 4, S1)

The straightforward person would cut the supporting details. That is considered an issue that faces students. If you are used to presenting the idea in your writings without adding supportive information, your writing will be considered as not meeting the necessary conditions or is not complete. However, the person who is more likely to add the supportive details, to explain, and to link ideas in their writing, their writing will be deep. (Interview Transcript, p. 1)

(c). The Possible Effect of the Assigned Genre on Students' Thematic Choices

Some participants believed that their style may vary depending on the type of assignment, assigned topic, instructor, and amount of time spent on writing the assignment (e.g., Excerpt 5–7, S5, S5, and S11, respectively).

(Excerpt 5, S5)

"The way I write varies depending on whether or not I am interested in the topic or have enough time" (Interview Transcript, p. 9).

(Excerpt 6, S5)

"I use different kinds of Themes because if your instructor is impressed by how good your writing is, this means more marks" (Interview Transcript, p. 10).

(Excerpt 7, S11)

"The thematic choices vary according to the type of text we are writing" (Interview Transcript, p. 21).

(d). The Possible Effect of Students' Academic Writing Proficiency on Their Thematic Choices

Students believed that expert writer make more appropriate thematic choices than novice writers (e.g., Excerpt 8, S15).

(Excerpt 8, S15)

Some writers may use different types of Themes; however, they may not use them the right way. Instead, they may use them randomly, and that may distract the readers because using thematic choices depends mainly on the writer's ability to use them wisely and in the right way. (Interview Transcript, p. 29)

(e). The Negative and Positive Effect of Students' Thematic Choices on Their Text's Rhythm

It was found that thematic choices should be used in a creative and appropriate way. They may positively or negatively affect the text. Informed and conscious thematic choices may enhance the text's presentation (e.g., Excerpt 9, S3).

(Excerpt 9, S3)

"Thematic choices give us a lively text, and make reading the text easier for the readers. If it is used in a good, organized way" (Interview Transcript, p. 6).

S10's comments highlights that writers must be aware of the negative effects of inappropriate thematic choices.
(Excerpt 10, S10)

"Using themes can be boring...for example, you should be aware of how you unintentionally repeat some words while employing textual or interpersonal Themes...you need to use them wisely" (Interview Transcript, p. 19).

Some students' thematic choices may affect the quality of their writing performance (e.g., Excerpt 11, S14).
(Excerpt 11, S14)

"Making decisions related to rhetorical choices may affect the quality of your academic text. You should be careful about who the readers are" (Interview Transcript, p. 26).

(f). The Possible Effect of Students' Knowledge on Their Thematic Choices

It is essential for students to consider their readers' knowledge and expectations to produce an interesting and persuasive write-up. Hence, they go through several decision-making stages, including the process of choosing appropriate themes. Most of the participants seemed to be aware of these stages (e.g., Excerpt 12, S11).

(Excerpt 12, S11)

Using Themes helps create a sequence of the ideas moving from one idea to another in the text to help the reader and to help the writer also who actually needs to explain the information clearly. (Interview Transcript, p. 22)

(g). Students' Awareness of the Communicative Functions of Their Thematic Choices

As illustrated above, some students are aware of the communicative functions of their thematic choices. S11 commented that thematic choices facilitate the production of coherent texts that clearly deliver the message.

(Excerpt 13, S11)

"The thematic choices help with emphasizing particular information or highlighting an idea. It helps also with the arrangement of the ideas, the text sequence, and displaying the writer's opinion" (Interview Transcript, p. 22).

Specifically, most participants remarked that topical, textual, and interpersonal themes can be utilised for different communicative purposes. This is illustrated in the following excerpt.

(Excerpt 14, S17)

The utilization of different types of Themes is considered important for the argument, the flow, and the coherence. Therefore, we use textual Themes and they are essential because there is an actual audience while you are talking very specifically about something, so you need to present your ideas very carefully and clearly to explain the argument. In a more logical way, there should be a space for the opinions of the writer to be somewhat obvious, so you need to use interpersonal Themes. (Interview Transcript, p. 33)

Accordingly, most students used unmarked themes to compose coherent academic texts and enhance its semantic consistency. They used marked Themes to highlight the important or unexpected information. Further, students tended to use marked and unmarked themes to signal their movements between different waves of information. Textual themes are used to organise ideas and the texts as a whole. Students employ interpersonal themes to indicate their perspective or direct their audience's attention to important information.

Interestingly, S13 believed that various thematic choices motivate the readers to read the text.

(Excerpt 15, S13)

"Keep in mind that a reader may not be impressed with your content, but they may continue reading if your way of writing attracts them to do so" (Interview Transcript, p. 25).

(h). The Possible Effect of Students' Linguistic Background on Their Thematic Choices

Some students asserted that their linguistic backgrounds play a considerable role in making thematic choices. They highlighted the unique relationship between the academic writers' choices and effect of their first language.

(Excerpt 16, S18)

Usually, as students, we were used to using a kind of complex structure, and that may be referred to our former knowledge of the writing process related to the Arabic language, so we were just transforming it into our English writing assignments. This process may have given us complex and ambiguous sentences back then. (Interview Transcript, p. 35)

(i). The Possible Effect of Students' Learning Experiences on Their Thematic Choices

Some students argued that their previous learning experiences may affect their thematic choices.

(Excerpt 17, S6)

Actually, we are all taught not to use interpersonal Themes because it will give you a piece of writing that lacks objectivity. In contrast, it is valid and expected to use textual Themes, and this is something we learn from the beginning. (Interview Transcript, p. 12)

S17 stated that instructors did not concentrate on their thematic choices as much as on their grammatical and lexical choices.

(Excerpt 18, S17)

"Usually, the comments are directed to the surface level, so they are more about grammar and vocabulary without considering the more essential aspects: the structure, the flow, and the argument" (Interview Transcript, p. 32).

(j). *Thematic Variation and Academic Disciplines*

Some participants commented that variations in thematic choices correspond with the variations in writing conventions followed in the concerned academic disciplines. Consequently, Applied Linguistics students' thematic choices are radically different from Theoretical Linguistics students' thematic choices.

(Excerpt 19, S7)

The writer may write something about meanings that we can only read between the lines, and that's something that I have noticed in many research papers talking about Applied Linguistics. However, we are more direct while writing about Theoretical Linguistics. (Interview Transcript, p. 13)

(k). *Challenges Encountered by Students While Choosing Appropriate Themes*

Some students recounted the challenges faced while making appropriate thematic choices. For instance, S4 commented that thematic choices are inextricably intertwined with other linguistic features that are involved in the compositional processes. However, she noted that these thematic choices are difficult to identify and use correctly.

(Excerpt 20, S4)

"I think that the most difficult thing for me was choosing the Themes. I spent hours and hours choosing one Theme" (Interview Transcript, p. 8).

(l). *Misunderstanding of the Importance of Thematic Choices and Students' Preferences*

Other participants noted that they were not aware of the communicative functions of the themes. They were using them inappropriately and repetitively. This negatively affected their text's rhythm (e.g., Excerpt 21, S7).

(Excerpt 21, S7)

When I started my graduate studies, before I became more sophisticated about the topic of my major, I used to employ a lot of textual and interpersonal Themes. For example, whenever there is a sentence that I do not know how to add to the text, I directly used textual or interpersonal Themes. (Interview Transcript, p. 13)

On the contrary, one participant mentioned that they did not prefer using marked themes to signal their movements or intentions throughout the text.

(Excerpt 22, S8)

Typically, the first sentence is what tells you what we are trying to talk about, so I do not need to use marked Themes to help clarify how we are moving from one sentence to another. (Interview Transcript, p. 16)

(m). *Focusing on the Effect of Thematic Choices in Writing Pedagogy*

Therefore, the utilisation of various types of themes is linked to a process of implicit and explicit learning in association with exposure to a corpus of academic papers and explicit writing instructions. Several participants commented that students should be familiar with the importance of the flow of information. In other words, students should be provided with advanced writing instructions to ensure adherence to the academic genre's conventional features.

(Excerpt 23, S4)

"Students must be taught how to create coherent texts so that they do not jump from one idea to another without taking into consideration the flow of the ideas in their sentences" (Interview Transcript, p. 7).

V. DISCUSSION

The logical progression of information is inevitably affected by the thematic structure. The findings of this study correspond with Park and Nam's (2015) observations. The current study found that EFL graduate students use different themes to scaffold their academic content. In several instances, students used topical themes to function as full themes, such as subjects and points of departure for their messages. On the other hand, they preceded these topical themes with textual and interpersonal themes that functioned as parts of the themes. They used textual and interpersonal themes to specify their messages. This corresponds with Potter (2016), who noted that the text usually contains only one topical theme and one or more textual and interpersonal themes. It has also been determined that textual themes constitute the first position in the theme (Ahangari, 2015). In line with Ebrahimi's (2016) findings, it was also observed that students tended to use unmarked, topical themes more than other types of themes.

The study's findings indicate that the thematic organisation is not arbitrary or value-free; meaning, it affects the text's rhythm and the perception of its intended meaning. This confirms Potter's (2016) findings. It further supports Wei (2016a), who argued that the thematic choices are extremely crucial because they are vital for shaping the target readers' perception of the text and its message.

Various thematic choices enhance the semantic consistency. This was observed through an interplay of marked and unmarked themes in addition to textual and interpersonal themes. Students used marked themes, or even textual and interpersonal themes, to connect the information and cohesively communicate their intended messages. However, some students overused one type of theme, which negatively affected the text's flow. This corresponds with Wei (2016b),

who found that some students used interpersonal themes more than topical themes. Repetitive use of themes can make their texts more colloquial. This was also demonstrated by Alotaibi (2020), who found that writers tend to use unmarked themes to start their clauses.

It was observed that students tended to use textual themes more than interpersonal themes. This can be attributed to graduate students' prior learning experiences, the way they perceived the nature of academic writing, or their preferred ways of organising the text's rhythm. However, certain extant studies claim the contrary. For instance, Chang and Lee (2019) found that students' low proficiency leads them to use interpersonal themes more than textual themes, whereas professionals adopt a more balanced approach.

Regarding the third research question, some students used different themes to achieve particular objectives. This is consistent with Potter's (2016) findings: thematic organisation can be manipulated to achieve several rhetorical purposes. Thematic choices can also be used to enhance the logical development of the texts. This was observed by Halliday (2014) and Jing (2015). They stated that the coherence and cohesion of the text can be promoted by appropriate thematic choices.

Some students used unmarked themes as a point of departure for their clauses, and this is in line with Halliday's findings. Further, it was observed that some students used different themes to orient the readers' attention and inform them of the text's content. This corresponds with Thompson (2014). Moreover, this supports Alyousef's (2016) and Lores's (2004) findings: appropriate thematic choices maintain the cohesion and coherence of the texts. Graduate students create the text's rhythm through its linear development, reiteration of the same theme, or Multiple-Theme patterns.

Analysis of the students' responses regarding their perception of the rhythmic effect of their thematic choices supports the findings of previous studies (e.g., Kim, 2020). It was found that students' perceptions of the writing assignment's requirements affect their thematic choices. Furthermore, the intended audiences, subject, students' interests, and their major influence their thematic choices. This finding is consistent with those of Kim (2020): students' perceptions of the writing tasks can shape and reshape their rhetorical choices. It is noteworthy that students' perceptions of the effect of their choices on the flow of their texts facilitates the decision-making processes and leads them to produce academically appropriate texts.

It is important for students to get feedback regarding the rhythmic complexity of their work. Sometimes they use different types of texts to encourage the instructors to provide them with comments regarding the text's rhythm. This was also highlighted by Kim (2020), who noted that students may adjust their interpretation of the written assignments based on the perceived feedback.

In this study, participants displayed their willingness to produce cohesive and coherent texts, and achieve several communicative objectives through their choices. They were aware of the effect of their thematic choices on the text's rhythm. However, their perceptions were not necessarily reflected in their actual performance. This indicates that they may need to engage with the learning process. Thus, students' experiences, backgrounds, preferences, weaknesses, knowledge about language (metalinguage), and familiarities must be considered while designing and identifying the requirements of written assignments. These findings correspond with extant literature (e.g., Beck & Jeffery, 2009).

Further, students used various linguistic and rhetorical elements to enhance their text's uniqueness. This was noted by Myhill (2009), who claimed that such choices "create different shades and nuances of meaning for different audiences and contexts" (p. 405). Thus, students' thematic choices may compel the readers to continue reading the texts. In most cases, graduate students are expected to create elegant, coherent, and persuasive texts.

The flow of information (i.e., periodicity, according to Martin and Rose's concepts) is affected by the writers' choices. Rhythm is not a rigid structure that simply links the parts to the whole (Martin & Rose, 2007). The effective, precise, and accurate thematic choices are predictive of the text's rhythm. They help target audiences to predict the discourse's structure. They orient the audience's concentration at the micro (i.e., local) and macro (i.e., global) levels. Similarly, Martin and Rose (2007, p. 199) remarked that the using macroThemes and hyperThemes to signal different phases of the discourse constructs "a "hierarchy" of periodicity of smaller units of discourse "scaffolded" within larger units".

Graduate students may face cumulative challenges in their efforts to produce high-quality compositions. Some of these challenges are related to the flow of information (i.e. the rhythm), which is strongly affected by the students' thematic choices. In other words, they are expected to select appropriate discourse structures, which can be constructed through several waves of information for different academic genres. This additionally pressurises graduate students, whose choices are deeply context-sensitive. These findings are in line with Escobar and Fernández's (2017).

Therefore, enhancement of academic writing can be achieved through rhythmic maturity and confidence in effectively utilising several rhythmic structures in a particular academic context. Further, the graduate students must keep working on their academic literacy (Babaii et al., 2016).

VI. CONCLUSION

This study broadly focuses on the rhetorical representations in texts that are usually associated with several conventional organisations that serve different communicative functions. The study's findings indicate that SFL approaches are reliable for analysing the meaning and rhetorical patterns of written texts. The analysis of the graduate

students' thematic choices extends Martin and Rose's (2007) SFL semantic approach to the complex academic compositional zone.

A fairly high level of metalinguistic awareness regarding the creation of different meaning through various linguistic representations, structures, and patterns may enhance graduate students' ability to make appropriate decisions. Graduate students should be given more opportunities to engage with different academic genres and explore the most effective thematic choice that shapes their texts in academically appropriate ways. Such findings could be used by concerned authorities to enhance the learning programs for EFL graduate students.

ACKNOWLEDGEMENTS

The researchers would like to thank the Deanship of Scientific Research, Qassim University for funding the publication of this project.

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Nujood Al-Reshaid has a master degree in Applied Linguistics from Department of English Language and Translation, Qassim University, Saudi Arabia. Her research interests include second language learning and teaching, academic writing, and discourse analysis.

Ahmad I Alhojailan is an Associate Professor of Applied Linguistics in the Department of English Language and Translation at Qassim University, Saudi Arabia. He holds an MA degree in Applied Linguistics from Essex University, UK, and a Ph.D. in Applied Linguistics from Oklahoma State University, USA. His research interests include academic discourse, EAP, ESP, second language writing, and pragmatics.