Ideational Metaphor in Saudi EFL Students’ Academic Writing: A Systemic-Functional Linguistic Analysis

Eman A. Alhusaiyan
English Language Department, College of Science & Humanities, Shaqra University, Saudi Arabia

Abstract—Over the past decade, there has been an upsurge in studies on the quality of EFL students’ English academic writing. However, research on grammatical metaphors in academic writing by EFL students is limited. As such, the purpose of this research is to identify the occurrences of ideational metaphors in students’ academic writing essays. In this research, the qualitative descriptive approach was applied. This study included 20 undergraduate students from the English Language and Literature Department at the College of Science and Humanities in Shaqra University, Saudi Arabia, Essay Writing course in the fourth level. Students were to write 350-word essay on the subject of “Learning Difficulties During the Coronavirus Pandemic”. The data corpus for the study totals 8,482 words. According to the findings, the students’ essays include 408 sentences that comprise the ideational metaphor. It is considered insignificant in contrast to the corpus’s full data set of 8,482 words. The occurrence of ideational metaphors is dominated by material processes, followed by mental processes, relational processes, behavioral processes, and existential processes. This conclusion shows that EFL students’ essay structures are unlikely to have a high number of good grammatical metaphor clauses. For EFL students, lecturers, teachers, and other educational professionals involved in instructing English academic writing, this study has pedagogical implications; it sheds light on how grammatical metaphors in writing texts can serve as a stand-in for the caliber of writing used in academic and scientific literature.

Index Terms—academic writing, ideational metaphor, SFL, students’ essay, writing skill

I. INTRODUCTION

Writing is a common pastime among individuals all around the globe. Consciously or not, individuals engage in writing almost every day. People may engage in normal business writing or social media communication using a variety of channels, such as Twitter, Facebook, or WhatsApp. Writing activities on social media are often conducted for amusement or everyday communication. Writing is also a career for journalists, book authors, and blog writers, among others. In other words, writing may be a pastime or a job, depending on how well it is practiced.

Writing skills may be taught independently or via school or university courses. Writing abilities are very difficult for language students to acquire. Since word choice, grammar, and the ability to properly and rationally communicate ideas in writing are all aspects of writing skills, mastering writing skills requires patience, perseverance, and dedication. In reality, EFL students face various obstacles while attempting to enhance their academic writing skills. When writing academic papers or course tasks, students often make multiple errors. When composing a thesis, students typically make writing errors. This led to the thesis poor quality, substance, and language. The poor quality of academic writing produced by students is a consequence of interference with the language, followed by translation and neglect (Pasaribu, 2021).

In addition, Lestari (2020) investigated the barriers that students in undergraduate levels confront while writing essays. The data were collected through questionnaires and interviews. It was found that students limited English proficiency contributes to the difficulty of writing essays, along with poor time management, ignorance of research methodology, and students’ motivation and commitment to essay writing.

Özkayran and Yilmaz (2020) found writing errors in the English writing assignments of Turkish EFL students. This research indicates that students make mistakes in academic writing concerning prepositions, the verb “to be,” single and plural nouns, spelling, articles, and tenses. This error is typically the result of a lack of academic English writing expertise. Therefore, professional educators such as lecturers and professors should establish a nice, favorable, and engaging atmosphere for writing and urge students not to be frightened of making mistakes while writing.

Khatter (2019) and Nuruzzaman et al. (2018) conducted further study on academic writing errors (2019). They performed study on the writing faults made by university students in Saudi Arabia. According to these two studies, the bulk of errors in academic writing are related to English grammar. This blunder happened as a consequence of interlingual and intralingual transfer, as well as weaknesses in grammatical understanding and comprehension, inadequate experience, and educational background. Prior research suggests that the bulk of mistakes in academic
writing at universities are in the area of grammatical mastery, as a consequence of students' lack of knowledge and competence with their language (Casal & Lee, 2019).

In addition to studies on academic writing errors, Zhang et al. (2021) and Al-Saadi (2020) conducted research on a wide range of topics associated with students' academic writing (2020). They explored the influence of author gender on writing quality. In addition, Kim and Kessler (2021), Casal and Lee (2019), Xuan and Chen (2019), and To (2018) examined the influence of lexical bundles and linguistic complexity on the quality of writing. In the meanwhile, Naghdipour (2021), Thipatdee (2019), and Chanyoo (2018) endeavored to examine the quality of writing in connection to writing pedagogy and other factors.

Based on the above descriptions of earlier research, it can be argued that academic writing research attempts to discover students' writing faults. Intriguingly, the elements that lead to writing mistakes are extensively explored by educators and educational researchers. The section that follows provides research demonstrating the relationship between teaching methods or approaches, gender inequities, and environmental studies and the writing skill or quality of pupils.

Zang (2018) and Liardét (2018) use Systemic Functional Linguistics grammatical metaphors to evaluate students writing quality in Chinese universities. They emphasized the significance of students’ knowledge of employing linguistic metaphors in academic essays. To (2018) also reviews a collection of English textbooks in Vietnam based on their lexical difficulty. According to this research, as students' proficiency increased, the texts they read grew more complex. Marr applied the study on grammatical metaphor to paraphrase the mechanical text (2019). She observed that grammatical metaphor was beneficial in paraphrasing the mechanical text directly.

In contrast, Tavernier (2018) examines the link between grammaticalization and grammatical Metaphor within the framework of SFL theory. This investigation uncovered a correlation between grammatical metaphors and text grammaticalization. Yang (2018) examined a number of grammatical metaphors in SFL in an effort to test the idea of textual metaphors. Theoretically and practically, ideational metaphors are believed to be more substantial and durable than textual metaphors.

Suhadi (2018) conducted research on grammatical metaphors in Indonesian contexts to assess the degree to which the theory of grammatical metaphors applies to the analysis of sentences in Arabic, Indonesian, and English. This study demonstrated that grammatical metaphor theory, which combines ideational metaphor and interpersonal metaphor of mood, was effective and applicable to evaluating a range of discourses in the three languages studied. In addition, Mahmuda et al. (2018) aimed to clarify the form and lexical alterations connected with grammatical metaphors used in student essays. Their work revealed that student essays were composed of nominalization, a collection of nouns, or brief phrases.

Research on academic writing quality based on grammatical metaphors is still rather seldom, despite the wealth of studies on the subject. University-level educational researchers in Saudi Arabia are still doing little research on writing quality. The ability of students to use grammatical metaphors, especially ideational metaphors, into their writing is thus evaluated in this research as a measure of their writing quality. Based on research, this study will provide an extra perspective on the linguistic metaphors used in students' writings.

II. REVIEW OF LITERATURE

A linguistic theory known as Systemic Functional Linguistics (SFL) views grammar as a tool for achieving communication objectives and language as a process of meaning formation (Halliday & Matthiessen, 2014; Eggins, 2004). The meaning of a language is a crucial component of both oral and written communication. There are now more meaning possibilities in language than only congruent and precise sentences. Grammatical metaphors are mostly used to employ language forms in an illogical and abstract way. The transition of expression from one congruent representation to another incongruent reality involves changes in the level of sentences, groups, words, and morphemes (Suhadi, 2018).

An integral component of Halliday's Systemic Functional Linguistics (SFL) theory is the grammatical metaphor hypothesis (Yang, 2018). A lexico-grammatical structural shift that includes incongruent coding is known as a grammatical metaphor. The two categories of grammatical metaphor are conceptual and interpersonal. Ideational metaphor and the kind of clauses are terms used to describe incongruent coding including changes in transitivity structures. In addition, as essays are seen as a kind of communication, the ideational metaphor is appropriate for studying students' writings (Eggins, 2004; Suhadi, 2018). The two categories of interpersonal metaphor are mood interpersonal metaphor and modality interpersonal metaphor. Interpersonal metaphor of mood refers to the inconsistent use of the speech function in terms of mood altering or transference. Although this subject is not covered in this research, changes in the modality used in interpersonal metaphor imply changes in the modality employed (Halliday & Matthiessen, 2014; Suhadi, 2018).

In the transitivity construction, the ideational metaphor is the incongruent form of sentences, phrases, and words (Halliday & Matthiessen, 2014). SFL identifies six types of transitivity: material, mental, relational, behavioral, verbal, and existential processes. Examples of metaphors in the material process are "the making" and "the use of." Examples of the mental process include "thinking," "feeling," "seeing," etc. In the relational process, the instances are "being" or "appearance." In the behavioral process, "smiling" and "laughing" are examples. The verbal process is found in instances like "saying instead of say" and "words instead of say." Existential process is expressed in words of "being" or
"existence". Table 1 below summarizes the process types in English with category meanings and examples adopted from Martin et al. (1997, p. 228).

<table>
<thead>
<tr>
<th>Process types</th>
<th>Category meanings</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material</td>
<td>‘doing’</td>
<td>The monarch had the power to dissolve the parliament.</td>
</tr>
<tr>
<td>Action</td>
<td>‘doing’</td>
<td>The communists were ousted from power.</td>
</tr>
<tr>
<td>Event</td>
<td>‘happening’</td>
<td></td>
</tr>
<tr>
<td>Behavioral</td>
<td>‘behaving’</td>
<td>She shrieked in agony.</td>
</tr>
<tr>
<td>Mental</td>
<td>‘feeling’</td>
<td>I heard a noise outside.</td>
</tr>
<tr>
<td>Perception</td>
<td>‘sensing’</td>
<td>The boy loved the girl.</td>
</tr>
<tr>
<td>Affection</td>
<td>‘emotive’</td>
<td>You can visualize meeting her again.</td>
</tr>
<tr>
<td>Cognition</td>
<td>‘thinking’</td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td>‘saying’</td>
<td>Police described the attack as particularly violent.</td>
</tr>
<tr>
<td>Relational</td>
<td>‘being’</td>
<td>This milk is sour.</td>
</tr>
<tr>
<td>Attribution</td>
<td>‘attributing’</td>
<td>Jen is her brother.</td>
</tr>
<tr>
<td>Identification</td>
<td>‘identifying’</td>
<td></td>
</tr>
<tr>
<td>Existential</td>
<td>‘existing’</td>
<td>Maybe there’s some other darker pattern.</td>
</tr>
</tbody>
</table>

### III. Method

The aim of this research is to identify which sentences students utilize as grammatical metaphors in their essays on their educational experiences during the coronavirus epidemic. This research employs a descriptive qualitative methodology. The study data set consists of essays submitted by 20 undergraduate students who took Essay Writing course in the fourth level in the English Language and Literature Department at the College of Science and Humanities in Shaqra University, Saudi Arabia. A 350-word essay on the subject of "Learning Difficulties During the Coronavirus Pandemic" was required of the students. The writings were part of their Essay Writing course assignments. The writings were retrieved from Shaqra University E-learning Platforms, which employs MOODLE, a platform for online learning that was first designed to help teachers build courses that would promote dialogue and group creation of learning materials. A total of 8,482 words comprise the corpus of the present study.

Halliday's SFL ideational metaphors are used in the data analysis. The focus of this study is on ideational metaphor because writing is viewed as a kind of communication that is applicable to ideational Metaphor analysis (Eggins, 2004; Suhadi, 2018). The stages involved in data analysis are as follows: (1) each phrase is recognized and grouped into ideational metaphors, such as material, mental, relational, behavioral, linguistic, and existential processes, based on how transitivity is constructed into the phrase; (2) grammatical metaphors like nominalization, noun grouping, and sentence simplification are all accumulated; (3) in order to classify ideational metaphor phrases correctly, the data analysis is explained in terms of the linguistic context; and (4) the findings were then presented in tables or written form. The type of data used in this study is qualitative data, but it is also supported by quantitative data in order to give more explanation of the qualitative analysis.

### IV. Findings and Discussion

The purpose of this research is to look at the ideational metaphors that EFL students employ when they write essays. During the early 2020 covid-19 epidemic, the pupils made an effort to express their emotions. Twenty writings totaling 8,482 words were examined for the ideational metaphor. It makes reference to the transitivity topic in a specific way via the use of linguistic metaphor. The data analysis showed that there were 402 ideational metaphors in all of the pieces. The material process is the kind of ideational metaphor that occurs the most often (197 times), followed by the mental process (112 times), the relational process (45 times), the behavioral process (39 times), and the existential process (9 times). Notably, writings lacked verbal communication. The usage of conceptual metaphors in the students’ essays is broken down in the table below.

<table>
<thead>
<tr>
<th>Types of Ideational Metaphor</th>
<th>Number of occurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Process</td>
<td>197</td>
<td>49%</td>
</tr>
<tr>
<td>Mental Process</td>
<td>112</td>
<td>27.86%</td>
</tr>
<tr>
<td>Relational Process</td>
<td>45</td>
<td>11.19%</td>
</tr>
<tr>
<td>Behavioral Process</td>
<td>39</td>
<td>9.70%</td>
</tr>
<tr>
<td>Verbal Process</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Existential Process</td>
<td>9</td>
<td>2.32%</td>
</tr>
<tr>
<td>Total</td>
<td>402</td>
<td>100%</td>
</tr>
</tbody>
</table>
The 281 ideational metaphor occurrences are first seen as inconsequential in light of the 8,482 words in the data corpus. Only 3.79 percent of all phrases in essays use incongruent expressions. Thus, the student essays are categorized as non-scientific literature (Zhang, 2018; Suhadi, 2018). Second, the material process type accounts for the majority of ideational metaphors, 49 percent of all discovered ideational metaphors, followed by the mental process, which accounts for 27.86 percent. These results imply that students are better familiar with metaphorical expressions used to describe physical and mental processes. In the meanwhile, there is a sharp drop in the use of metaphor in interpersonal and behavioral processes. Surprisingly, the verbal process had no metaphorical language, whereas the existential process had only one.

The significant findings of the study, their similarities and differences with past studies, and their pedagogical implications are covered in the discussion that follows. Additionally, instructions are provided on how to use the ideational Metaphor for each kind of transitivity in the students' writings. The material process is discussed firstly, followed by mental, relational, behavioral, linguistic, and existential processes respectively.

A. Materials Process

The subcategory of transitivity that corresponds to activity is the material process. It refers to the notion of one entity acting on another. In other words, the actor (participant 1) is responsible for achieving the aim (participant 2). Even though it is not explicitly stated in the clause, every material process clause contains an action taker. The topic of the activity is the goal (participant 2). The following text provides a metaphorical illustration of a physical process. The material process verb has the ability to be transformed into the present participle. Verbs such as “make,” “observe,” and “write” are indicative of the material process. The data of this study reveals good use of this process when students describe their daily routine, as in Excerpts 1 and 2 below.

Excerpt 1

‘Taking better care of one's health and keeping the house cleanliness’.

The incongruent expression of the statement is seen in Extract 1. The verb "take" is the root of the gerund "taking." The word “cleanliness” is derived from the adjective "clean," whereas the verb "keeping" is derived from the verb "keep." The congruent expression of this clause can be rephrase as "It is better to take care of one's health and maintain the house clean." The verbs "take" and "keep" are regarded as examples of material process since they are categorized as action verbs in the text.

Excerpt 2

‘After attending my online classes and doing my assignments, I checked my answers with my classmates’.

In Excerpt 2, the use of the gerunds "attending" and "doing" in the sentence is also emphasized. Both expressions were formed from the roots of the verbs "attend" and "do". The data shows that the gerund derivation is the most metaphorically realized phrase in the literature. This result indicates that the students were knowledgeable about the gerund derivation process. This result supports the findings of Mahmuda et al. (2018), who discovered that the most prevalent grammatical metaphor in their research was nominalization.

B. Mental Processes

Seeing, liking, desiring, thinking (of something), and imagining are only a few examples of the type of processes that take place in the mind’s internal reality. Similarly, the three different types of mental processes are Affection (liking, disliking, loving, etc.), Cognition (deciding, understanding, knowing, etc.), and Perception (seeing, hearing, etc.). There is always a participant in mental processes that can feel, think, or sense. The term ‘senser’ is used to refer to this participant. The other participant in the phenomena is the thing that is perceived, felt, thought about, or seen.

Excerpt 3

‘Online classes can be sometime very boring, and missing my friends was the worst feeling.’

The sentence in Excerpt 3 is classified as a mental process because it depicts a meaning of ‘feeling’. The word ‘boring’ in the first clause belongs to Affection process and the clause is congruent with the sentence ‘Online classes make me feels bored’. Similarly, ‘missing’ in the second clause is classified as belonging to Affection process. It is also in the gerund form derived from the verb ‘miss’. The clause is congruent with the sentence ‘I feel missing my friends’.

C. Relational Processes

The relational process tries to create connections between two entities and is classified into two modes: attribution and identification. The former is used to characterize an entity by assigning various adjectives, whilst the latter refers to an entity by asserting his/her identify explicitly. The three different types of relational processes that make up the English system, according to Halliday and Matthiessen (2014), are as follows: (1) Intensive, as in Sam is a dentist. (2) Circumstantial refers to place, time, and organization. For instance, Sam was at the clinic yesterday. (3) Possessive describes a circumstance in which the individual has control over someone or something. There are two distinct ways for each of these: attribute-based and identity-based.

Excerpt 4

‘Being in a lockdown, we had to spend more hours on the computers.'
The clause is categorized as a relational process in Excerpt 5 as it encodes Intensive identification of the situation. The phrase ‘being in a lockdown’ is an incongruent variation of the phrase ‘we were in a lockdown’. The gerund form of the linguistic metaphor indicates the transition from ‘be’ to ‘being’.

Excerpt 5

Having the family gathered most of the time is warm and fun.

This sentence illustrates the use of the verb ‘having’ as a linguistic metaphor. Again, ‘having’ is the gerund derived from the verb ‘have’. The type of relational process expressed in Excerpt 5 is the possessive process category.

D. Behavioral Process

The behavioral process is focused on the person’s physiological or psychological processes. These include bodily and psychological activities such as breathing, coughing, smiling, sleeping, and seeing. Behavioral processes are hard to distinguish from other processes because they lack definite features. They, in other words, can be posited halfway material and mental processes. This type of process denotes just one participant, and that participant is usually a conscious individual. In certain situations, there may be an extra player: the Range, who only contributes specialized action to the process and is not a true participant in it (Zhang, 2018).

Excerpt 6

Sometimes there were laughters and shouts during online classes.

In Excerpt 6, the clause’s participant is the words ‘laughters and shouts’. The phrase is incoherent since the meaning of ‘laughter and shouts’ has changed from a process to a participant status. This statement may be congruently expressed as ‘We sometimes laugh and shout during online classes.’ This sentence illustrates the psychological state of the original participant or action-taker.

E. Verbal Process

The phrase “verbal process” refers to the act of speaking. Therefore, something or someone must take on the role of the “sayer” who communicates the message. Any exchange of symbolic significance is included. The Receiver, the person who will hear the speech, is another participant. There are two other elements, namely language and what is spoken. The data analysis showed that there was no ideational metaphor in the language process of the student writings. During the verbal procedure, the pupils’ ideational metaphor construction skills seemed to be lacking. All phrases that make use of linguistic processes were therefore written in congruent forms.

F. Existential Process

Existential process conveys an entity’s existence without speculating on its other characteristics. Existential statements often start with the word ‘be’, and the ‘there be’ clause is the typical clause construction that conveys this type of process; examples are ‘There is a cat on the mat,’ and ‘Is there any message for me?’ Other verbs employed in existential processes are different from either attributive or identifying verbs, despite the word ‘be’ sharing similarities with relational processes (Zhang, 2018). Exist, take place, persist, and occur are all verbs that denote ‘to exist’ or ‘to occur’.

Excerpt 6

There wasn’t so much fun in distance studying.

The expression ‘there wasn’t’ is used incongruently in this instance. A congruent statement would be: ‘When we had distance learning, little fun took place.’ The word ‘being,’ which is suggested in the phrase, is created by the verb ‘was.’ This phrase is thus categorized as a metaphorical statement in the existential process.

V. CONCLUSION

The goal of the study was to identify ideational metaphoric structures in student essays from an academic writing course. The students’ use of linguistic metaphors in their academic writing is one of its outstanding features. Students’ academic writing may be of greater quality if they use grammatical metaphors. To put it another way, academic writing should look formal, organized, and concise. This study found that ideational metaphor clauses are used sparingly in students’ essay writing. As a consequence, this effect worsens the subpar academic writing that students generate. Another surprising finding was how often a material process was linked to the ideational Metaphor. Additionally, the pupils had the greatest experience with the gerund construction method, which turns infinitive verbs into nouns.

The expressions of ideational metaphors included five different forms of transitivity. On the other hand, the data analysis hid the verbal process. The most prevalent kind of ideational metaphor was realized via a mental process. This conclusion is supported by the results from Mahmuda et al. (2018) and Suhadi’s (2018) research. They emphasized how EFL students often misuse linguistic metaphors in their writing. Additionally, there are a few grammatical mistakes in the writings, which reveals a lack of academic writing proficiency on the part of the pupils. Due to the pupils’ weak grammatical knowledge and academic writing abilities, this issue developed (Pasaribu et al., 2021; Pasaribu, 2021).

Academic writing in EFL classrooms has pedagogical consequences as a result of the study results. Students should first be more aware of the value of using grammatical metaphors to strengthen and condense their writing. Second, instructors should develop a method of instruction that helps students become more adept at using grammatical
metaphors in their academic writing. To guarantee that students’ writing is of the greatest caliber, appropriate teaching resources must be employed, such as EFL practice books in academic writing that clarify grammatical metaphors.

ACKNOWLEDGEMENTS
The author would like to thank the Deanship of Scientific Research at Shaqra University for supporting this work.

REFERENCES
Eman Abdulaziz Alhusaiyan is an Assistant Professor of Linguistics in the Department of English Language in the College of Science and Humanities in Shaqra University, Saudi Arabia. She had her B.A in English Language & Literature from Majma’ah University, Saudi Arabia. She then had her MA (2011) and PhD (2020) in Linguistics from Imam Muhammed Ibn Saud University, Saudi Arabia.

Currently, she is a full-time Lecturer in English Language Department, Shaqra University. She is also the Rector’s consultant for Academic Affairs. She is also a member of several committees related to Academic and Scientific Research Affairs.

Dr. Alhusaiyan’s research interests are in Cognitive Linguistics in general, Functional Grammar and Cognitive Grammar. She is a member of Saudi Society of Linguistics (SSL).