

Assessing Summary Writing Skills Through Ideational Grammatical Metaphor Among TVET Students at Federal Polytechnic ILARO, Nigeria

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Abstract

This study investigated the bioactive compounds in ethanolic extract of *Xylopia aethiopica* leaves using gas chromatography and mass spectrometry (GC-MS) technique. The phytoconstituents present in *Xylopia aethiopica* leaves were: flavonoids (951.82 mg/g), tannins (282.70 mg/g), alkaloids (188.47 mg/g), phenols (603.25 mg/g), saponins (11.47 mg/g), steroids (91.20 mg/g), oxalates (190.32 mg/g) and glycosides (190.32 mg/g). A total number of 30 bioactive compounds were identified based on their peak areas. The major compounds greater than 1 % were; 13-docosenamide (21.09 %), terpineol (10.07 %), 1,6-cyclodecadiene (9.37 %), copaene (2.88 %), caryophyllene (8.15 %), β -ocimene (6.05 %), β -myrcene (5.09 %), copaene (2.38 %), 2 – methoxy-4-vinylphenol (1.72 %), β -elemenone (1.31 %), 3,4-dimethylphenyl heptyl ether (1.26 %), ethyl oleate (1.07 %) and γ -elemene (1.27 %) while those less than 1 % (< 1 %) were; 2- methylenebornane (0.66 %), 2-methoxy-2-propenyl (0.72 %), hexadec-7-enal (0.23 %), hexadecanoic acid (0.02 %), didodecyl benzene 1,2 dicarboxylate (0.09 %), methyl stearate (0.16 %), 9,12-octadecadienoic acid (0.08 %), hexadeca-7,10 – dial (0.47 %), 1,1,5 – trimethyl -1,2-dihydronaphthalene (0.01 %), propane, 1,1 – oxybis -3- chloro (0.08 %), 1-trimethylsilylpent-1-en-4-yne (0.03 %), bicyclo[13.1.0] hex Summary writing requires basic skills which Technical and Vocational Education Training students need for achieving brevity. The purpose of this paper is to explore the application of linguistics to the study of Ideational Grammatical Metaphors (IGM), nominalization, its frequency and process types, and to instruct TVET English summary writing skills. This paper adopts Hallidayan Systemic Functional Grammar to pinpoint and analyze nominalization and the role play by it. The data were obtained from 400 scripts of students from faculties of Engineering, Environmental Studies, Communication and Information Technology Management Studies, and Pure and Applied Sciences. The analysis displays that IGM has permeated summary writing texts and the prevailing process types are material and relational types. Based on the findings of this study, some implications can be drawn for TVET students writing skills and reading pedagogy.

Keywords: Systemic Functional Linguistics; Grammatical Metaphor; Nominalization;

Introduction

Technical and vocational education training (TVET) students need to apply the basic skills in summary writing in their respective course of study. They need to retain the original information in their interpretation of the given text. Here, the ability to write summaries of



source texts is critical in the context of writing multi-voiced or "heteroglossic" (Martin & White, 2005). Whatever information a student needs to disseminate in his/her summary, s/he needs to shift from consumers of research-based knowledge to creators of research-based knowledge (e.g., Coffin, 2006; Hood, 2004, 2005).

Halliday Systemic Functional Linguistics is an approach to the study of grammar, and it is significant because it bridges the gap between social and linguistic structure in a precise manner. Form and function of grammar play an important role in discourse formation and there is a selection of linguistic choices available to satisfy various instances of social need.

TVET students need the basic skills in summary writing which will make them excel in their chosen career after graduation. It is clear that summary writing retains the main idea and deletes extraneous information for the sake of brevity. During summary writing, it is expected of students to display their writing skills in retaining vital information in a given text.

The theoretical and methodological approach underpinning this work is Ideational Grammatical Metaphor (hereafter, IGM) by Halliday (1985, 1994). Systemic Functional Linguistics (hereafter, SFL) sees language as a semantic structure of meaning potential about a particular context. By Grammatical Metaphor (GM), we mean the non-congruent ways of encoding language (Halliday, 1985, 1994; Halliday & Matthiessen, 1999). GM is a resource that language utilizes to encapsulate information by conveying concepts in an incongruent form which is very worthwhile in summary writing as a way of expressing objectification and abstraction.

According to Halliday (1985, 1994), there are two types of GM; namely Ideational Grammatical Metaphor (IGM) and Interpersonal Grammatical Metaphor (InGM). Our focus in this study is on IGM. IGM comprises process types and nominalization. Summary writing requires readers understanding of a text via paraphrasing and retaining the main idea. This corroborates Halliday & Webster's (2009) submission on scientific text when they argue about the necessities nominalization in scientific writing. They further state that the core of scientific texts is for the development of a chain of reasoning in which each step leads to the next. Here, summary writers need to restate what has formerly mentioned and to put in their words by retaining the main idea. In the words of Halliday & Webster (2009), all human adults and all languages are endowed with the ability to move from the causal to the nominal construct of experience, but this inherent potential in the grammar enables language users to de-couple the lexico-grammatical interface and to re-couple it with a different ordering, which is the quality of scientific genre and the need to construct technical terms and sequential argument. Summary writing is like a scientific text that frequently makes use of normalization (Halliday & Martin, 1993). This, the main realization of the IGM is nominalization. Here noun is the most common GM in the word level, it makes the verb which expresses the process and the adjective which expresses the quality lose functions of their own, so that they can demonstrate something in the form of a noun. One important reason for nominalization is that it allows speaker organize text in terms of ideas, reasons, causes (Eggins, 2004, p.95).

Nominalization is a powerful resource for creating (irrational) grammatical metaphor, the processes (consequently worded as verbs) and properties (consequently worded as adjectives)



are reworded metaphorically as nouns, instead of functioning in the clause of process or Attribute, they function as Thing in the nominal group (Halliday & Matthiessen, 2004, p.656).

The following examples are taken from Halliday & Matthiessen (2004) below.

Verbal nominalization - for example - press= pressure; decided=decision,

Adjective nominalization - for example - hot=heat,

Clausal/logical relation nominalization -

Congruent

Is impaired by alcohol

they allocate the entire revenue

they were able to reach the computer access to the computer, etc.

Metaphorical

alcohol impairment

allocation of the entire revenue

After the introduction of GM in 1985 by Halliday, it has grown rapidly in number. Moreover, the interest in the use of GM in specialized language use seems to have increased after Halliday's and Martin's (1993) analysis of the use of GM in technical and scientific writing.

Halliday's systemic theory of grammar is based on the functions language performs in social context. The context of situation is built into the grammatical analysis of a clause. The context of situation is realized when the link between the grammatical form of language and the situation is made possible by a hypothesis. By hypothesis, we mean how the three functions of language organize the various elements and systems that constitute a mode into three distinct domains of meaning, i.e. the ideational, the interpersonal and the textual metafunction, about the relationship between them. A metafunctional hypothesis is not a hypothesis about the functions or uses of text, as reflected in functional theories of language, but a hypothesis about the internal grammatical organization of the clause, about those functions of language that are built into the very structure and organization of language itself (Halliday & Matthiessen, 2004; Taverniers, 2006; Caffarel, 2006).

The three basic components which construct meaning in language are ideational, interpersonal and textual components. The ideational component deals with experiences and happenings in the outside world. Its function enables people to construe reality by configuring their experiences into clauses. The second component shows the relationship established between people who are engaged in a particular discursive setting. The textual component, that is, the thematic structure, indicates a focal point of the message to identify what the clause is about (Rose, 1997; Graber, 2001; Webster, 2005a).

GMs is a "substitution of one grammatical class, or one grammatical structure, by another" Halliday and Martin (1993, p.79); for example, his reflection on instead of he reflected on. Here, the process of reflecting has been turned into a noun. Or this ambivalence towards literacy would be the metaphorical form of the congruent correspondent people is ambivalent toward literacy (Taverniers, 2003).

A good number of researches have been carried out (Ajayi & Nyong, 2021; zamborova & Klimova, 2021; Idris et al, 2014; Hood) on summary writing. Ajayi & Nyong (2021) examined the summary skills and problem of reading comprehension among English and French



language students in College of Education, Ikere Ekiti, Nigeria. Zamborova & Klimova (2021) analyses nonnative students' errors in the written summary at the university level, using linguistic-stylistic as a research method on the written performance. The findings revealed that the problematic areas in writing summaries were grammatical (determines), followed by stylistic (text coherence, slang words and punctuation), lexical (word collocations), and lexicostylistic errors (prepositions).

Again, Idris et al (2014) proposed an algorithm based on summary sentence decomposition to identify students' strategies in summary writing. Their findings revealed that the result based on 168 summary sentences indicated that the algorithm successfully identified those syntax level strategies: deletion, sentence combinations, copy-paste, syntactic transformation and sentence re-ordering. Good (2008) explored how meaning is implicated in one process of re-instantiation from original text to notes to summary and to consider at a theoretical level what is involved in these changes. She suggested ways to scaffold the topic more effectively for students and novice writers in academic English. Hood's study is similar to this study in terms of theoretical framework but differs in terms of methodology.

To fill this gap, we conducted this Ideational Grammatical Metaphor analysis of selected summary answers to explore the application of linguistics to the study of Ideational Grammatical Metaphors (IGM), nominalization, its frequency and process types, and to instruct TVET English summary writing skills among the students. The aim and objectives of this study are: 1) to examine the pedagogical role of Ideational Grammatical Metaphor (IGM) in enhancing TVET students of Federal Poly Ilaro are motivated to develop summary writing skills in English via the frequency of nominalization, its frequency and process types; 2) to examine the effectiveness of the frequency of the process types in developing the students' summary writing skills; and 3) to instruct the students how IGM can be used as a pedagogical technique in their summary writing.

2. METHODOLOGY

Four hundred (400) scripts of ND2 students from schools of Engineering, Environmental Studies, Communication and Information Technology Management Studies, and Pure and Applied Sciences were randomly selected for the study. Hundred (100) scripts each were selected from the four faculties after a summary passage was given to each student under the respective faculties through the help of English language Lecturers allocated to teach GNS 201. The aim of the selection was to discover how information is packaged using the resource of Ideational Metaphor. We attempt to provide a possible nominalized variant of the summary answers in order to illustrate how the transference from the logical to the experiential metafunction and from verb (process) to noun (participant) helps to achieve brevity and information density in the summary answers. In table 1 below, we present the summary of these transferences.



Table 1. Samples of IGMs in summary passages 1, 2, 3, 4 and 5 of the study

No	Metaphorical wording	Congruent wording	Process type	Frequency in per text
1	The first stage in the publication of a book is market <u>survey</u>	The first stage is to survey the market	material	1
2	The next is scouting for a <u>qualified</u> writer	The next step is to scout qualification of a writer	relational	1
3	The third is external <u>assessment</u> of manuscript	The third is to assess the manuscript externally	relational	1
4	The fourth is internal <u>printing</u>	The fourth is to print the manuscript internally	material	1
5	The publishing house <u>awareness</u> is created through publicity	The creation of awareness is for publicity	relational	1
6	Social media encourage youth to <u>indulge</u> in cyber crime	Youth indulgence in cybercrime is aided by social media	material	1
7	Social media <u>encourage</u> youth to waste their precious time	There is encouragement of youth waste of time	existential	1
8	Social media allow youth have <u>easy</u> access to pornography	Social media allow youth to have access to pornography easily	material	1
9	Parents should <u>bring up</u> their children properly	Proper upbringing of children should be given by their parents	material	1
10	Teachers should <u>inculcate</u> the right skills and attitude in the youth	Inculcating the right skills and attitude in the youth is the teachers' duty	relational	1
11	<u>Availability</u> of health facilities has led to a steady decrease in the rate and decrease in birthrate	Available health facilities decrease the rate and increase the birthrate	material	1
12	Access to education has increased people's <u>awareness</u> of unhealthy practices inimical to their welfare	...people are aware of unhealthy practices...	mental	1
13	The world has <u>enjoyed</u> relative security of lives due to absence of war	The enjoyment of...is due to ...	relational	1
14	The earth will not be able to <u>accommodate</u> the whole of human race	The earth will not be able to give accommodation...	material	1
15	Rapid population will lead to environmental <u>pollution</u>	Rapid population pollutes the environment	material	1
16	The writer's motive is to <u>teach</u> public speech-making	Teaching speech-making is the motive of the writer	relational	1
17	The first step is being <u>certain</u> of what to say to boost confidence	The first step is certainty...	relational	1
18	The second step is starting <u>gradually</u> to be emotionally <u>balanced</u>	The second step is to have a gradual balance	material	1
19	The third is to <u>inject</u> comic relief to <u>ease</u> tension	Injecting comic relief makes the tension easy	material	1
20	Gazing at encouraging faces to be <u>comfortable</u> on stage	The comfort of a speaker on stage is encouraged by gazing faces	material	1
21	The last is to <u>rehearse</u> the written speech ,enough to be acquainted with the text	Rehearsal is the last step...	relational	1
22	The first problem with owing the desktop telephone is that it <u>waste</u> time	The first problem is time wastage	relational	1
24	The second problem is that desktop telephone is <u>costly</u>	Another problem is outrageous cost	relational	1
25	The other problem is that service is interrupted <u>constantly</u>	The third is constant service interruption	relational	1



3. RESULTS

Out of 220 nominalizations in Texts 1, 2, 3, 4 and 5, 120 go for material, 86 relational, 10 for mental, and 4 for existential processes. By comparing the congruent and metaphoric versions in above instances, it implies that unpacking a text often involves re-inserting human actors, often rendered unnecessary by nominalization. When we simply compare the length of the original nominalized text with the length of the unpacked version, the ability of nominalization to compact meanings is obvious. Remarkably, this non-metaphorical version has lost much of its reputable sound (Eggins, 1994). In All texts of this study, nominalization has also utilized to introduce a topic that the writer has developed in the next few sentences or expanded and elaborated in the previous sentences. Thus, Nominalizations can facilitate smooth conveyances between clauses by serving as subjects that refer back to ideas in previous clauses or next clauses as follows:

The first stage in the publication of a book is market survey. The first stage is to survey the market. The next is scouting for a qualified writer. The next step is to scout qualification of a writer. The third is external assessment of manuscript. The third is to assess the manuscript externally. The fourth is internal printing. The fourth is to print the manuscript internally (Excerpt from the answered summary questions).

Nominalization increases the information load of the nominal group, and it succeeds in condensing the information of the clause. Nominalization helps students to retell the writers' argument in a passage, to be reiterated in summary form –packed, as it were, and compacted by the grammar– so that it serves as the beginning for a further step(s) in the rationality and sequential argument (Vandenberg et al., 2003; Murar, 2004). In the above example, all the properties and functions of the summary texts suggested by Halliday and Martin (1993) such as lexical density, syntactic ambiguity, GM, technicality and rationality are apparent. There are 4 nominalizations such as survey, qualification, assessment and printing etc. in the text. Technical taxonomies such as survey, assessment, printing, etc. are utilized through the text. The author has made an effort to illustrate and explain those technical terms by reasoning, expanding the topic and GM as well. The more GMs in the text, the fewer processes, and consequently, the more information load and lexical density will be. It is obvious that summary passages have a particular tendency for nouns, especially the extended and nominalized ones. The language used in the summary texts has been one that "foregrounds participants and backgrounds actions and processes". Halliday and Martin (1993, p. 8). The following samples of IGMs of this study are selected haphazardly from texts 6, 7, 8, 9, and 10 as follows:



Table 2. Samples of IGMs in Summary Passages from texts 6, 7, 8, 9 and 10 of the study

No	Metaphorical wording	Congruent wording	Process type	Frequency in per text
1	Developed nations <u>rely</u> on developing nations for oil	There is reliance of developed nations on developing nations for oil	material	1
2	productions must be <u>globally</u> stepped up	step up must be given to global nations	material	1
3	Nations must strike a balance <u>to favor</u> all parties	Favor must be given to all parties...	material	1
4	Politicizing commodity exchange must be <u>avoided</u>	There should be avoidance of politicizing commodity exchange	existential	1
5	Poor nations must be <u>considered</u> during price determination	Consideration should be given to poor nations during price determination	material	1
6	The first factor was the dual <u>administrative establishments</u>	The first factor is to establish dual administrative	material	1
7	The second was <u>thriving</u> of the tin industry	The second was to thrive for the tin industry	material	1
8	The third was <u>improved</u> infrastructural amenities	The third was improvement on infrastructural amenities	relational	1
9	The fourth factor was the <u>migration</u> of foreign business men into Jos	The last one was for the foreign business men to migrate to Jos	material	1
10	There was racial <u>segregation</u> between the whites and blacks	The existence of the people was to segregate among themselves	existential	1
11	The first factor is <u>instability</u> in government	...instable government	relational	1
12	The next factor is bad <u>economy</u>	The economy of the country is bad	relational	1
13	Another factor is external <u>interference</u>	External force interfere with the country economy	relational	1
14	The result of frequent changes is financial <u>recklessness</u>	reckless finance causes frequent changes	relational 1	1
15	The last factor <u>disturbs</u> focus on particular projects	disturbance on focus on particular projects	material	1
16	Robots are <u>tireless</u> at work	Robots show tiredness at work	mental	1
17	Robots do not make <u>frivolous</u> demands	robots do not demand frivolity	material	1
18	Damaged parts of robots are <u>fixable</u>	The damaged parts can be fixed	material	1
19	Human beings are <u>reasonable</u> workers	The reasonable workers are human beings	relational	1
20	Human beings take decisions on <u>initiative</u>	Human beings initiate decision s	material	1
21	The poor man <u>lacks</u> good food	The problem of the poor man includes lack of good food	material	1
22	The poor man <u>lacks</u> clothes to wear	another problem of a poor man includes is lack of clothes	material	1
23	The poor man lacks <u>comfortable</u> home	comfort of home is what the poor man lack	relational	1
24	The problem of the poor man includes <u>illiteracy</u> owing to financial lack	The poor man is illiterate owing to financial lack	relational	1
25	The <u>destruction</u> of some of the wire-bearing poles are caused by unfavorable weather	Unfavorable weather condition can destroy...	material	1

Webster (2005a, b) drew our attention to the difficulty students have with scientific texts. This mostly occurs when students engage in summary texts that deal with technical terms in English at least; the difficulty is largely a grammatical one. Thus doing something about it, we have to grasp how the language of these texts is constructed. So people recognize that there is such a thing as scientific language, at least in the written mode. In these five passages (texts 6, 7, 8, 9



and 10), out of 221 process types, 136 processes are material, 80 are relational, 11 are mental, and 04 is existential. In the above Tables (1 & 2), there are many processes rendered in nouns, that is, abstract entities such as reliance (1), politicizing (4), disturbance (15), decision (20) etc., these are now no longer describing actions; they are focused on objects or concepts. In nominalized expressions, the voice of the writing seems more abstract, objective and more formal. In each table, the probable congruent forms, types of processes and their frequency in per text in summary texts are represented. As it was mentioned earlier, GM examples in these texts perform several functions as the following examples:

The first factor was the dual administrative establishments. The first factor is to establish dual administrative. The second was thriving of the tin industry. The second was to thrive for the tin industry. The third was improved infrastructural amenities. The third was improvement on infrastructural amenities. The fourth factor was the migration of foreign business men into Jos. The last one was for the foreign business men to migrate to Jos. There was racial segregation between the whites and blacks. The existence of the people was to segregate among themselves (Excerpt from the summary answers).

From the excerpt above, Nominalization can turn a dynamic process (verbs) into a static entity through re-categorization and thus provides us with a different way of construing the world, or of conceptualizing experiences from a different angle. The excerpt above provides samples of congruent realization of meanings, whereby verbs encode actions (to establish, to thrive), while the other provide metaphorical realization of meanings due to the fact that the actions of establish and thrive etc. are now nominalized and these actions or processes are rendered in concepts (nouns).

From samples 8, 9, 10, and 14, 17, 18 of Table 2, the processes (verbs) (improved, migrate, and segregate) are metaphorically coded as nouns (improvement, migration, and segregation) and properties (adjectives) (, frequent, frivolous and fixable) are reworded as nouns as well (frequency, frivolity and fixed). It is worth noting that Nominalization, as a form of GM, allows a large amount of information to be packed into a comparatively small space such as, a noun group. By comparing the above instances (8, 8, 9, 10, 14, 17, 18) in table 2 (i.e., the metaphorical and congruent wording), the eye-catching element is the length of the congruent example and it is too long, dull and boring to render the original passage verbatim. Here, the process of nominalization enables students to include the writers' information in the same sentence, guarantee a better flow of discourse and add more beauty to the texts. Eggins (1994) draws our attention to the fact that although heavily nominalized language can appear pretentious and noticeable and may make the meaning ambiguous, the real incentive for this grammatical process is a functional one: Nominalizations enables us to perform things with the passages that we are not able to do in non-nominalized texts. Nominalization allows us to get away from the dynamic and usually real word sequencing that goes with speaking, where we relate sequences of actions in which we featured as actors. By nominalizing actions and logical relations, we can organize our text not in terms of ourselves, but in terms of ideas, reasons, causes, etc (Eggins, 1994).



Frequency of IGM Instances in Scientific Texts The frequency of process types in scientific genre is represented in table 5 and its following graphs as follows:

Table 3. Frequency & percentage of Process types in Summary Texts

Process types		Frequency	Percent (%)
Valid	material	200	48.8
	relational	170	41.5
	mental	25	6.1
	verbal	0	0
	behavioral	0	0
	existential	15	3.7
	total	410	100.0

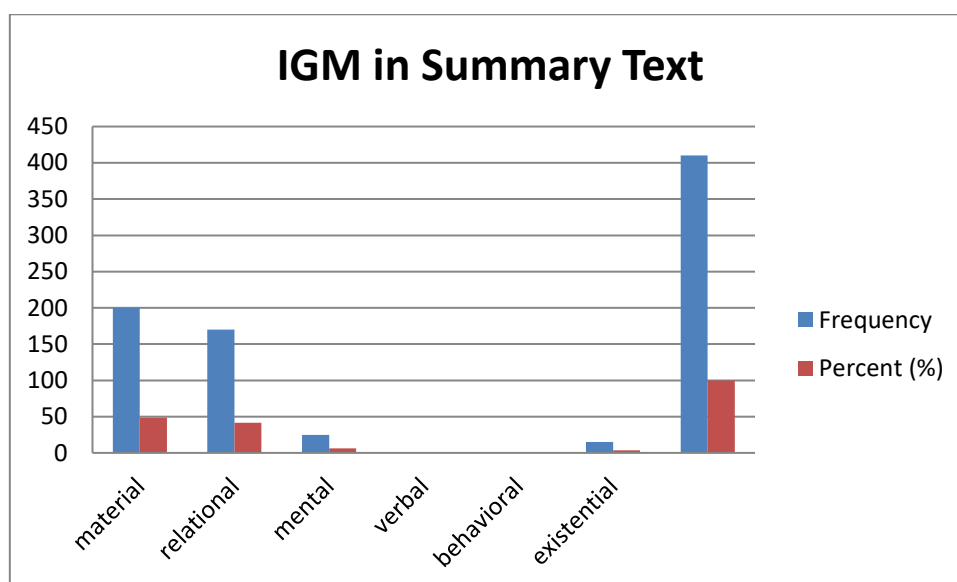


Figure 1. Frequency of process types in Summary Texts

The above table and figure display the frequency and percentage of IGMs in summary texts. 558 instances of IGM were extracted from ten summary passages. 200 material, 170 relational, 25 mental, 0 verbal, 0 behavioral, 15 existential process types out of 410 were obtained. The summary texts of the study represent the dominant of material process (based on doing and happening) and then relational process types, based on being, having and description, than any other types.



3. DISCUSSION AND IMPLICATIONS

Based on the objectives of this study, the discussion of the findings is illustrated as follows and they validate Halliday and Matthiessen's (2004) suggestion that the ideational grammatical or transitivity analysis should show dominance of a material type process.

As earlier stated above, GM recurrence shows its unique properties as a kind of grammar phenomenon in the summary texts. The congruence and metaphorical use in texts are to express the meaning; thus, they are regarded as different choices of grammatical structures. The congruent and metaphoric use of language therefore allow "a substitution of one grammatical class, or one grammatical structure, by another" (Halliday & Martin, 1993, p. 79), and GM is conceived as an incongruent realization of a given semantic configuration in the lexico-grammar (Halliday, 1985, 1994). SFL sees nominalizations as a concept closely related to the concept of GM; nominalization is used as the resource for the creation of GM. In the words of Halliday, metaphorization of the processes leads to the nominalization. According to Halliday (1994, p. 352), Nominalization is "the single most powerful resource for creating GM". It is a process by which congruent elements are rendered to function as non-congruent ones. IGM is realized by non-congruent realization of the ideational meaning (depicted by sensitivity system). Holliday recognizes 6 main types of process: material, mental, relational, behavioral, verbal and existential processes, which are realized in the grammatical categories. The three components of process are: "(1) the process itself; (2) participants in the process; and (3) circumstances associated with the process" (Halliday, 1994, p. 107). The shifts can be between the processes or a transition of participants and circumstances and this is what Halliday calls GM. These provide the frame of reference for interpreting our experience of what goes-on. Comparing the metaphorical and congruent domains of this study indicates the paramount importance of GM, and without it, the scientists and scientific texts writers will fail to convey their intended meanings and outlooks to the reader. Nominalization reduces the number of clauses to make more information be compressed and packed into each nominal group which enables an academic and scientific writer to concisely and precisely refer to recurring abstract ideas, a single sentence to encapsulate in several complex abstract ideas. The study of the utilizations of GM is particularly helpful in disclosing how processes are rendered in concepts, thus modifying not only the grammar of texts but also reader responses to the texts. By nominalizing and packing information, GM is a very economical method of encapsulating information and; as a consequent; its occurrence is significantly noticeable in scientific and technical registers. In all metaphoric instances of the study, the real doers are often absent from the surface structure, switched by the nominalizations. GM, thus, symbolizes an appearance of objectivity, abstractness, technicality, rationality and of course obscurity to the scientific texts. The results of the study show that applying nominalization in the above texts allows information packaging, building up chains of reasoning and rational arguments, continuing discussion on the topic, and creating technical and specialized terms and of course enabling an information density in a discourse. It is worth mentioning that summary passages can come from any discipline where discussion is based on argument and another aspect of information dissemination. In the context of summary writing, GM in general and nominalizations in



particular are significantly right components for this objective. The frequency and percentage of process types in summary texts of this study and samples of IGMs are presented in tables 1, 2, 3; they revealed the most frequently used types of IGM in these texts are three types of GMs (material, relational and mental), being quality to entity (frequent to frequency), being process to entity (migrate to migration) and entity as modifier (drug resists to drug resistance) respectively. This finding supports Halliday's (1985, 1994) and Halliday and Matthiessen's (1999, 2004) emphasis on nominalization in English scientific discourse confirming that nominalization is the most omnipresent sort of GM in scientific registers and that the most dominant process type in transitivity analysis is material process, as in the result of the study. Essentially, one of the main pedagogical implications of the present research and studies of the same nature is to smooth the path and supply a tool and outlook for scientific writings and those who tend to pursue IGM in their careers as scientific writers, students and researchers. Next, many students need the opportunity to learn how to read or probably how to write summary, so that they may effectively participate in scientific processes that this study is used for. Again, learning and knowing about GM and IGM can also shed light on the fluent and smooth process of translation to some extent, because translation requires students to possess high language ability and excellent command of English, such as GM and IGM. Furthermore, IGM helps students to reduce the number of clauses in their writing and compact more information into each nominal group. Therefore, it boosts the beauty of the clause and absorbs the reader's attention to pursue the writing. Eventually, when an action or a process is rendered in nominalization, much of the lexical meaning becomes lost or, rather, concealed, and obscurity often occurs. Nominalization can, therefore, create problems for readers, because it tends to obscure meanings and construct an ideology that is often not transparent to readers. Readers will have to discover the hidden meanings and resolve ambiguities in order to gain full understanding by learning GM and IGM respectively.

4. CONCLUSION

This study has assessed students' summary writing skills from the perspective of IGM proposed and evolved by Halliday (1985, 1994). After analyzing metaphoric words and rendering them in congruent domain to distinguish the process types, it was observed that IGM has dominated summary texts to some extent (558 IGMs). The analysis of the data showed the predominance of material process type, based on action and doing, and then relational types, based on being and having. The least occurrence of mental processes is evident while verbal and behavioral processes are missing. The use of Nominalization in summary writing is very essential in the creation of technicality enabling producing informational dense structures. For this reason, nominalization was selected as a proper linguistic element for representing summary writing skills in a given text. The present study has limited itself to fairly small scopes; however, the phenomenon of GM proved to open new possibilities for investigating them in other types of discourses and with more numbers of texts. GM helps students write with precision. However, improving students' grammatical metaphor from the aspect of writing can reduce their anxiety



in the process of writing and can better feel the charm of language, which in turn can greatly improve students' English writing skills.

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