The Use of Nominal Subordinate Clause as a Syntactic Complexity Measure by Some National University of Lesotho Students

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ARTICLE INFORMATION	ABSTRACT
	The paper explores the use of nominal subordinate clause as a syntactic complexity measure in some examination scripts of the National University of Lesotho (NUL) fourth year students. The study is based on the employment of the interpretivist paradigm as well as descriptive and case study designs. Data was collected from the students' essays in the (2016/2017) examination papers and analysed qualitatively, following the Transformational Generative Grammar (TGG) and the Cognitive Grammar (CG), both of which formed the theoretical frameworks for the study. The paper shows that NUL students have a reasonably high level of syntactic complexity with the use of nominal subordinate clause.

1. Introduction

The paper shows that in English language, syntactic complexity features such as nominal subordinate clause are used as measures of syntactic complexity in written texts. This type of clause is formed by the combination of a main clause and subordinate clause particularly the finite subordinate clause, (nominal subordinate clause) such as, *I know [that he is sick].* This example indicates a complex sentence which has been formed by the main clause, *I know* and the nominal subordinate clause, *that he is sick* has been attached to this main clause. This nominal clause is used as a direct object of the verb, *know*. The identified nominal clause is observed at the end of the sentence.

When a sentence structure consists of this type of combination, it is referred to as a complex sentence. As indicated earlier, a complex sentence has an independent and a dependent clause as illustrated in this example, *she ate what she did not cook.*

This example shows the complex sentence that begins with the main clause, *she ate [it]* which has rightly ellipted the pronoun [it] due to English grammatical rules and the nominal clause, *what she did not cook* is attached to it.

Thus, clause subordination is one of the syntactic complexity features. There are two types of subordinate clauses: The finite subordinate clauses and the non-finite subordinate clauses. Nominal clauses are categorised as finite subordinate clauses. They are subordinate clauses that always contain the subject and predicate except in the case of commands as reflected in *eat.* This example shows only the predicate not the subject since the subject is implied, because in English Language, sometimes the subject can be omitted as it is generally known that commands are directed to the second person. In the example, *she ate what she did not cook, she* is the subject while *ate* is the predicate (Quirk and Greenbaum, 1973:310). Maleke (2011) claims that finite clauses are considered as subordination in three ways: (i) the finite subordinate clause is noted as the clause which is introduced by the subordinating conjunction in the sentence and that can be a nominal or

adverbial clause as in, *when she was young, she liked cooking.* (ii) It is the clause that post-modifies a noun phrase in a sentence and that is a relative clause, for example, *the person who stole my car is known.* (iii) It is a clause that functions as a noun, for example, *did you know that the man living upstairs is dead?* That is, nominal clause refers to the first and third explanations above. Thus, it is introduced by a subordinating conjunction, **that/wh** and it functions as a noun.

2. Literature Review
Research on syntactic complexity in English as a First Language has been carried out by linguists such as (Hunt, 1965; O'Donnell et al., 1967; Hunt, 1970a; Harpin, 1976; Perera,1984; Beard et al., 2002; Keen, 2004; & Mazur-Palandre, 2007. With regard to English as a Second Language (L2), such studies were conducted by researchers such as (Schleppegrell, 1996; Hinkel, 2003; Ortega, 2003; Myhill, 2004 & Muñoz et al., 2010). These researchers used different measures of syntactic complexity that include subordination.

2.1 Rationale
Unlike other studies that used subordination as a whole, that is, both finite and non-finite subordinate clauses to explore the syntactic complexity of their research subjects, the paper focuses on the use of nominal subordinate clause in order to investigate the NUL students' syntactic complexity in their writing. Regardless of the faculties, all the NUL students are normally introduced to Communication and Study Skills (CSS) and Remedial Grammar of English in the first year of their university study. By the time they get to the fourth year, they have been involved in continuous writing for three years. The researchers were interested in investigating whether NUL students use nominal subordinate clause in their essay writing and whether they use it appropriately or not. They were also examining its syntactic functions and exploring the environments in which this category is reflected in their sentences.

2.2 Questions and objectives
The current paper explores the nominal subordinate clause feature in the NUL (English L2) students' written texts. It answers the questions:

    1) (a) Do NUL students use nominal subordinate clause in their writing?
        (b) Do they use it appropriately?

    2) What are syntactic functions in the students' sentences?
    3) Which textual functions does it perform?

The first objective of the study was to investigate the syntactic complexity of NUL students' writing through the use of nominal subordinate clause. The second objective was to explore its syntactic use whether it has any syntactic functions or not and whether students are aware of its textual functions.

2.3 Theoretical Framework
The study is based on the employment of the interpretivist paradigm as well as descriptive and case study designs. Data was analysed qualitatively, following the Transformational Generative Grammar (TGG) and Cognitive Grammar (CG), both of which formed the theoretical frameworks for the paper. The theories of Transformational Generative Grammar (TGG) (Chomsky, 1957) reviewed by Thinker (2005) in Matthiesen (2009) and Cognitive Grammar (CG) which was proposed by (Langacker, 1987) and reviewed by Tehan (2010) are discussed in this section in order to explain the theoretical framework for the analysis of the use of nominal clause as a syntactic complexity measure in the writing of NUL students' essays. The current study relates these theories as appropriate for the analysis of the syntactic structures and the grammar observed in the students' essays. Thus, these theories explain the types of sentences realised in students' essays. TGG concentrates on syntactic structure. It helps in the identification of types of sentences in order to observe whether there are complex sentences in the students' writing. It identifies different syntactic complexity features used in the formation of complex sentences whether there are features such as the use of subordinate clauses in their writing, sentence-combining, embedding of subordinate clauses and ellipsis of some words. CG was used to describe their grammar, investigating the types of errors observed. Thus, the collective use of these theories (TGG and CG) in this study enabled the researcher to observe whether the sentences produced by the students are complex, using nominal clause, its syntactic and thematic functions. This is why the present study employed TGG as the theory that can probably respond positively to the researchers' concern, and might enable a detailed examination and discussion on the use of nominal clause as a syntactic complexity measure in NUL students' writing.

Thinker (2005) as quoted by Matthiesen (2009) states that TGG is "any formal description of a language consisting of an algorithm which generates sentence structures and of a set of transformations which modify them systematically". He argues that all transformations are based on deletion or insertion of elements that result in substitutions or "permutations" of which it is the case in this paper since insertion of elements or deletion that result in substitutions is observed while forming complex sentences through the use of nominal clause such as , *she ate **what she did not cook.*** In this sentence, there is an omission of the pronoun, [it] and which is rightly substituted by the nominal clause, *what she did not cook*.

On the basis of Matthiesen's (2009) claim, subordinating conjunctions and recursive constructions explained in TGG are the features which were analysed in this data, especially because specifically, nominal clause was a feature used to investigate syntactic complexity in the paper.

TGG also enfolds the Minimalist Program (MP). Neske (2014) reports that the goal of uncovering the most general and the only indispensable aspects of phrase structure rules is manifested in Chomsky's Minimalist Programme. It has Strong Minimalist Thesis and Merge**.** According to Chomsky's Minimalist Programme, syntactic structure is built from the bottom up through a single operation called Merge. Through Merge, the operation used in the Minimalist Program, syntactic objects are combined to form a new set of sentences. Lexical items are combined recursively by this operator to generate new lexical items. "These new lexical items can then be merged with other lexical items to generate yet another lexical item, and so forth during the build-up of the complete syntactic structure". This theory was applied in the data analysis section of the paper and it is shown in figure 1 which has been adapted from Neske (2014).

Figure 1
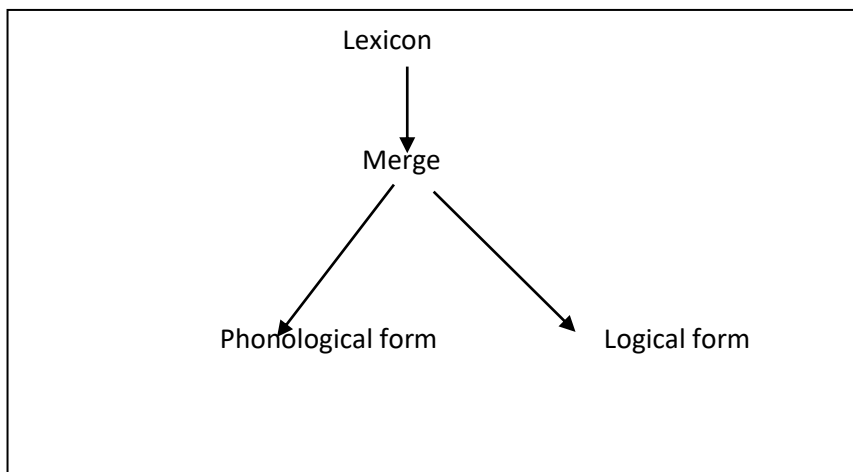
TGG overrides all the other theories in this paper because it unfolds a response to the objectives of the paper. It is therefore the best preference in the current paper. However, TGG has drawbacks which have been identified by other researchers such as Katz and Paul (1964) and Thinker (2005) in Matthiesen (2009). The drawbacks include the argument that TGG is a purely syntactic theory. This is the reason why the present study combined TGG with Cognitive Grammar (CG) incepted by Langacker (1987) and reviewed by Tehan (2010) in Matthiesen (2009), to analyse its data. This Cognitive Grammar (CG) focuses on grammatical structure and proposes that language occurs in a natural way (Langacker, 1987). Langacker reports that in cognitive grammar, syntax and semantics are inseparable "at the time when the status of syntax as an autonomous formal system is accepted by most theories as an established fact" (Langacker 1987). It has a central claim that grammar forms a continuum with lexicon and can be fully described. Cognitive grammarians propose that language is not an independent system of the rest of cognition.

The paper is therefore conducted within a combination of two theories namely, Transformational-Generative-Grammar revised by Thinker (2005) in Matthiesen (2009) as it basically analyses the structure of the sentences of the language, and CG modified by Tehan (2010) in Matthiesen (2009) that complements TGG in the paper as it does not separate syntax from grammar in a grammatical analysis. The combination of these two theories were applied to analyse the complexity of sentences found in the data as well as to relate those complexities to the meaning enfolded in the used structures.

3. Methodology

The paper adopted qualitative approach because of the research questions which must be answered by this paper. The research questions in the paper require the research subjects' experiences with regard to the investigation of the use of nominal clause as a syntactic complexity measure in students' writing. This is confirmed by McMillan et al.'s (2006) view that qualitative studies describe and analyse thoughts, perceptions, ideas and experiences about a phenomenon under investigation.

It was stated earlier in this paper that its aim was to investigate the use of nominal clause as the syntactic complexity measure in students' writing. The qualitative approach was therefore appropriate in this paper because students' experiences were analysed and described. As a result, in the current paper, the most accurate means to obtain data was to use students' essays. The qualitative approach was also selected as the best alternative for the paper for the reasons that the researchers were not interested in number of the students who may produce complex sentences but they were interested in the depth of reality in the phenomenon they were investigating. The students' experiences revealed the truth that the researchers hoped to obtain in this paper.

3.1 Data Collection

The data was collected from the essay writing taken from the fourth year students' examination scripts for the academic year (2014/2015) across the faculties, Faculty of Agriculture (FOA), Faculty of Education (FOE), Faculty of Humanities (FOH), Faculty of Law (FOL), Faculty of Health Sciences (FOHS), Faculty of Social Sciences (FOSS) and Faculty of Science and Technology (FOST). The students from the Faculty of Education and from the Faculty of Humanities language departments are extensively exposed to English language and linguistics courses throughout the four years of their university study. That is, the students from the FOE and the FOH in the Department of English were not involved in the study because of being well established in English. Their scripts were not included in the study. These students whose scripts were in the sample share the level, time frame, setting and genre.

The researchers wrote a letter to the Registrar asking for permission to use examination scripts. After the Registrar's authorisation which was in a form of a letter addressed to the Deans across the faculties, the scripts were collected from the HODs' offices across the faculties. At NUL, examination scripts are kept in safe places under the authority of the HODs. Continuous writing was used on the basis of Wendy et al.'s (2002) claim that written language can provide a rich data base for studying complex structures because it is likely to have longer sentences with more complex syntactic structures than spoken language. Kemper et al. (1989) and Weisberg (2000) also note that writing is the modality through which L2 learners initiate the use of new syntactic structures.

The researchers wanted to use the examination scripts for this academic year because within the period of five years, it appears in the middle. This depended on their accessibility. Eventually, the 2016/2017 examination scripts were used because they were the most accessible ones for the period of five years, from 2012/1013 to 2016/2017 since they were the recent ones. The researchers know that at NUL, examination scripts are disposed of after every five years. So the recent consecutive academic years are from 2012/2013 to 2016/2017.

The examination scripts of fourth year students of the National University of Lesotho (NUL) were purposively, systematically and randomly selected. The total number of twenty scripts from the identified departments across the faculties depending on the number of departments each faculty had were selected. A sample of twenty scripts which brought the sample size to 140 scripts were selected based on Brynard et al.'s (2005) claim that a sample refers to a small group selected from the entire population which is believed to present the characteristics of the entire population. Wagner et al. (2012) also note that qualitative studies use small samples. That is, data was collected from all the departments in each faculty except in the case where the departments do not have essay writing but figures or symbols. This means that if the faculty has five departments to involve in the paper such as in the FOA and FOSS, four scripts were randomly selected from each department, five scripts from those faculties that have four departments such as in the FOH, FOST. In the case in which the faculty has three departments, such as in the case of FOE and FOL, seven scripts were randomly selected from two departments which themselves were randomly selected and six from the last department. Regarding the FOHS, two out of four departments were involved because the HODs of the other two departments declined the researcher's request of collecting data from their departments despite the authorisation given by the NUL registrar and their Dean.

First of all, the researchers purposely checked and confirmed that all the scripts had answers for essays. They then purposely selected those with at least one page long which could be analysed. If the students had choice, they checked the scripts to identify the questions with continuous writing. One essay was chosen from all the essays and the descriptive essay type was

chosen. When choosing the type of essay to use as data, the researchers based themselves on the task focusing terms used by lecturers while setting the questions because such task terms determine the type of essays to be written. The department and course to obtain data from were randomly chosen. Systematic sampling was used to pick every fifth or tenth script from the envelopes containing the students' scripts until the total number of twenty scripts was reached. The criterion of fifth or tenth script was used depending on the number of scripts per envelope. Thus, if the envelope contained small number of scripts, the fifth criterion was used but if many, the tenth script was chosen. If such a length of a page is there, such script was taken as one of the sample scripts but if the script did not have a one page long essay writing, the researchers put it aside and looked for another script until she found what she was looking for. This procedure implies that in the case of the department of Science, the researchers collected data from written courses such as Biology, not Mathematics.

3.2 Summary of Data Presentation

The presentation of data indicates twenty-two (22) examples of how nominal clause has been used in the current data. The data reflects that NUL students use nominal clause to form syntactic complexity. Their writing demonstrates appropriate use of this feature and they use both **wh-** and **that** nominal subordinators. The examples illustrate that the students place nominal clauses in three different positions in the sentences and such structures show the functions of the nominal clause syntactically such as being the subject, the direct object and te prepositional complement.

The examples showing how they are demonstrated in the data are provided in (a) – (v) below.

(a) *[That it happens in the environment], means [that fierldworks [sic] incorporates [sic] the principle of environmental education [which is one of the highly valued principles of good geography teaching]. (FOE)*

(b) It was discovered *[that the three (3) [sic] piece cans, did not seal well]* and as a result ^ contaminants entered the can easily and caused food spoilage. *(FOHS)*

(c) The Chinese believe *[that in every society]* ^ there exist *[sic]* an ideal optimum relationship between the land on which people live and the number of people on the land. *(FOH)*

(d) It is significant *[to state* **[that under African Junsprudence there was Democratic accountability in that people were allowed to elect their leaders.** (FOL)

(e) They easily remember *[what they see than hear]. (FOE)*

(f) Learning in the field, using the environment as a resource, helps learners apply *[what they learned in class to reality]. (FOE)*

(g) All *[what we studied now]* come into practice. *(FOH)*

(h) Learning in the field, using the environment as a resource, helps learners apply *[what they learned in class to reality]. (FOE)*

(i) The different theories of public finance seek to better explain *[what public finance is all about]. (FOH)*

(j) Objectivity means [*that science is not dependent on subject studing [sic] it or the materials of science are dependent. (FOE)*

(k) Isolation is done [to make sure *[that plants are not pollinated by distinct varieties]]. (FOA)*

(l) But it can also happen *[that other natural needs needs to assessed [sic] by othe [sic] experts other than a surveyer [sic]. (FOA)*

(m) This means *[that anyone carrying out a survey must first have a purpose of carrying out a survey* [in order to know the benefits or outcomes of it]]. (FOA)*

(n) Religious groups constantly stress *[that men are heads of the families and women have to submit to their husbands], [sic]* this supports *[that a woman should always submit even [when she is abused]]. (FOHS)*

(o) The knowledge *[that micro-organisms [sic] survive in certain conditions],* lead to finding means of minimising or eliminating such conditions to extend the shelf-life of the product. *(FOH)*

(p) The suspension of aid means *[that the government could not do all [that it had planned it would do]. (FOH)*

(q) It is through political corruption *[that we we [sic] encounter monopoly],* by monopoly we mean *[that there is dominant [ ] within some work place. (FOH)*

(r) It is claimed *[that the matter was res judicata]* and by this approach became myopic **[that the appelant [sic] was persuing [sic] a differently new matter [before it].** (FOL)

(s) This goes [to say **[that the insured will not be allowed** [to claim [where he has not made payment of the premium. (FOL)

(t) Therefore^ having such knowledge, they will be in a position [to decide together on *[what could be their objectives, things they need [to achieve]]* based on *[what they have and lack. [sic] in their area]. (FOA)*

(u) *Something different from* **[what is handed down in the courts of law, [that law is reason and Justice]** [sic] Holmes goes further and said **[that [what is hold to be law by different writers is different from [what the friend bad man view [sic] law.** (FOL)

(v) *The group would meet as an attempt [to randomly mention* [**what the system needs to do on a much broader level.]** (FOST)

4. Data Analysis

Data was analyzed qualitatively, hence the reason for employment of the interpretivist paradigm and the Content Analysis (CA). In order to conduct a CA, the text was broken down into sentences. Then the text was examined using one of the CA basic methods, namely, the conceptual analysis, because it begins with identifying the concepts present in a given text. The researchers first identified the sample scripts from the students' essays, read them and identified nominal clauses.

4.1 Nominal clauses as subject

In the present data, nominal clauses are used as subjects. This incidence is illustrated in (a) ***[That it happens in the environment], means* that firldworks [sic] incorporates [sic] the principle of environmental education which is one of the highly valued principles of good geography teaching. (FOE) and (b) *All [what we studied now] come into practice. (FOH)*

 In these examples, the identified nominal clauses function exactly the same way as the noun does. A noun performs syntactic functions such as being a subject and as thus, it is observed at sentence initial position. It occupies the subject slot. On the basis of this explanation, these two examples have been used as subjects because they occupy the subject position, and are thus, observed at sentence-initial position. Example (a) begins with the nominal clause, ***That it happens in the environment*** while example (b) is initiated by the determiner, ***all*** that precedes the nominal clause, ***what we studied now*** and these nominal clauses are noted at the beginning of the sentences where they function as the subject since they occupy the subject position. In this regard, TGG was used to investigate the syntactic structures of these two examples. It helped the researcher to note her objectives because it reflected that NUL students use nominal clause appropriately as a syntactic complexity measure. It further helped the researcher to be aware of the syntactic and thematic functions performed by the identified nominal clauses in the examples. Regarding this awareness, the paper reflects that nominal clauses were used as a subject syntactically and they were noted at the beginning of these two examples. As TGG also enfolds Minimalist program, it helped the researcher to uncover the most general and the only indispensable aspects of phrase structure rules. It showed that the syntactic structure is built from the bottom up through a single operation called Merge. Thus, the main and dependent clauses were merged together to form the complex sentence.   This is in line with Berk's (1999) opinion that nominal clauses function exactly the same way as the noun does. It is therefore noted that NUL students have the ability to construct syntactic complex sentences through the use of **nominal** clauses. Based on these findings, the present study concludes that there is a high level of syntactic complexity in the writing of NUL students.4.2 Nominal clauses as direct object

In the following sentences, nominal clauses are seen as direct objects. Direct object is a structure contained within the predicate. It is typically the noun phrase that is preceded by the verb, indirect objects and subject complements can occupy this position as well. Direct objects follow transitive verbs and this is a rule (Berk, 1999).

(b) *It was discovered **[that the three (3) [sic] piece cans, did not seal well]** and as a result ^ contaminants entered the can easily and caused food spoilage. (FOHS)*

Example (b) illustrates **that** nominal clause functioning as the direct object of the verb, ***discovered.*** The nominal clause is noted internally since the sentence is introduced by the main clause, ***It was discovered*** and ends with a coordinate main clause that begins with the coordinating conjunction, ***and***. Thus, the nominal clause is observed in the middle of the sentence.

(c) *The Chinese believe **[that in every society]** ^ there exist [sic] an ideal optimum relationship between the land on which people live and the number of people on the land. (FOH)*

This example shows the nominal clause that functions as the direct object of the verb, ***believe.*** This nominal clause is observed at sentence-internal position. This observation indicates that the students are aware of both syntactic and thematic functions of the nominal clauses.

(d) *It is significant to state **[that under African Junsprudence there was Democratic accountability in that people were allowed to elect their leaders.** (FOL)

Example (d) indicates the nominal clause which has been used as the direct object of the verb, **state**. This nominal clause shows that NUL students observe both syntactic and thematic functions of nominal clauses since this example reflects it at the end of the sentence.

(e)   *They easily remember **[what they see than hear]**. (FOE)*

Example (e) demonstrates the nominal clause that has been used as the object of the verb, **remember.** The example reflects that the students are aware of syntactic and thematic functions of the nominal clauses because in this example, it has been used as the direct object and its environment is the end of the sentence.

(f)   *Learning in the field, using the environment as a resource, helps learners apply **[what they learned in class to reality].** (FOE)*

Sentence (f) shows the nominal clause that functions as the direct object as it is preceded by the verb, **apply**. Its environment is at the end of the sentence. This reflection shows that both syntactic and thematic functions of nominal clauses are recognised by the participants.

These examples, (b) – (f) indicate that apart from being used as the subject, nominal clauses are also observed as the direct object of the verbs such as **means, discovered** and **believe.** The verb, **means** is used more frequently than the other two in the present paper. The reflection is supported by Berk (ibid) who says that the number of verbs that can take **that** clauses as direct objects is limited. The observation made regarding the use of nominal clause as a direct object is supported by Greenbaum and Quirk (1990), Berk (1999), Leech and Svartvik (2002) who affirm that nominal clauses are also used as direct objects and the findings reveal that the use of nominal clauses as indirect objects is not reflected. TGG helped the researcher to note recursive structures of the identified complex sentences and the Minimalist Program also helped the researcher to observe merging of the clauses in order to build the complex sentences. CG on the other hand, was used to explore the grammaticality of the sentences. These examples indicate that NUL students use nominal clauses to form syntactic complexity and they use them appropriately. They also observe their syntactic and thematic functions because they have been used syntactically as direct objects and are observed at sentence-initial and final positions.

4.2 Nominal clauses as appositive

Apposition is another syntactic function of **that** nominal clauses reflected in the current paper. According to Leech and Svartvik (2002), apposition is the process of placing two or more noun phrases next to each other and both noun phrases must refer to the same person or thing. The occurrences of apposition are indicated in examples (g) – (s) in which nominal clauses function as appositive clauses to the preceding noun phrases. The examples below illustrates that function.

(g)   *All **[what we studied now]** come into practice. (FOH)*

Example (g) reflects the use of nominal clause as apposition because the sentence is introduced by the pronoun, **all** which precedes the nominal clause, **what we studied now**. The identified nominal clause functions as appositive clause to the preceding pronoun, **all.** This form of use reflects appositive because it gives more information about the pronoun already stated in the preceding phrase. It is also observed at the beginning of the sentence and as thus, it shows that the participants are aware of its syntactic and thematic functions.

(h)   *Learning in the field, using the environment as a resource, helps learners apply **[what they learned in class to reality].** (FOE)*

This example illustrates the use of the nominal clause at the end of the sentence where it has been used as appositive since it appears answering the question, **apply what?** This kind of question seeks elaboration on what has been said, it investigates the hidden but important information.

(i)   *The different theories of public finance seek to better explain **[what public finance is all about]**. (FOH)*

The sentence in example (i) shows the nominal clause functioning as appositive at the end of the sentence. This appositive uncovers the hidden information about what should be explained.

(j)   *Objectivity means [**that science is not dependent on subject studing [sic] it or the materials of science are dependent.** (FOE)*

As indicated in (j), the nominal clause functions as appositive which answers the question, what does it mean? This question provides the essential information which was hidden. The clause is noted at sentence-final position.

(k) *Isolation is done [to make sure **[that plants are not pollinated by distinct varieties]]**. (FOA)*

Example (k) reflects the nominal clause at the end of the sentence. In this environment, it is an appositive that gives more information about the preceding main clause.

(l) *But it can also happen **[that other natural needs needs to assessed [sic] by othe [sic] experts other than a surveyer [sic].** (FOA)*

This example indicates the nominal clause at the end of the sentence. It functions as the appositive clause because it explains the preceding main clause.

(m) *This means **[that anyone carrying out a survey must first have a purpose of carrying out a survey** [in order to know the benefits or outcomes of it]]. (FOA)*

As demonstrated in example (m), the nominal clause functioning as appositive that appears at sentence-internal, unravels the hidden necessary information about the preceding main clause, it means [it]. This implied pronoun, [it] has been substituted by this nominal clause. This implies that the participants are aware of syntactic and textual functions of the nominal clause.

(n) *Religious groups constantly stress **[that men are heads of the families and women have to submit to their husbands], [sic]** this supports **[that a woman should always submit even [when she is abused]].** (FOHS)*

Example (n) shows the nominal clause internally and it has been used as appositive clause because it gives more information about the preceding main clause. This hidden information about what Religious groups constantly stress about is important.

(o) *The knowledge **[that micro organisms [sic] survive in certain conditions],** lead to finding means of minimising or eliminating such conditions to extend the shelf-life of the product. (FOH)*

As illustrated in example (o), the nominal clause performing appositive function is observed at the beginning of the sentence where it is preceded by the noun phrase, **the knowledge**. This implies that it is explaining this noun phrase by uncovering the essential hidden information about the **knowledge**.

(p) *The suspension of aid means **[that the government could not do all [that it had planned it would do].** (FOH)*

This example indicates the nominal clause at the end of the sentence where it functions as the appositive clause explaining what is meant by **the suspension of aid.**

(q) *It is through political corruption **[that we we [sic] encounter monopoly],** by monopoly we mean **[that there is dominant [   ] within some work place.** (FOH)*

In this example, the nominal clause is preceded by the main clause. This nominal clause gives clarification about the preceding clause and as thus, it is used as appositive.

(r) *It is claimed **[that the matter was res judicata]** and by this approach became myopic **[that the appelant [sic] was persuing [sic] a differently new matter [before it].** (FOL)*

The nominal clause is observed immediately after the main clause in example (r). This indicates that it is used as appositive clause giving more information about the preceding main clause.

(s) *This goes* [to say **[that the insured will not be allowed** [to claim [where he has not made payment of the premium. (FOL)*

As provided in (s), the nominal clause is used as appositive clause that gives clarification with regard to explain what it says. It gives more information about the preceding phrase. The hidden information which is clarified by this nominal clause is important.

This form of use reflects nominal clauses functioning as appositive because appositive gives more information about a noun already stated in the preceding main clause. Appositive clause appears answering the question, for example, in example 92(a), the question maybe, *"what to make sure of?"* This kind of question seeks elaboration on what has been said, it investigates the hidden but important information. The paper indicates that the participants use nominal clause to build syntactic complexity and they use it appropriately. The analysis further shows that the participants are aware of both syntactic and textual functions of the nominal clause. It is in this regard that TGG helped the researcher to be aware of the

complex sentences which were built through the use of nominal clauses. Thus, the researcher was able to note different words, phrases and clauses used to form those identified complex sentences. That is, recursive structures were also noted because of TGG. In the cases of whether the produced sentences are grammatical or not, the researcher was helped by CG since grammar and syntax cannot be divorced from each other in academic writing. The proficiency to use nominal clause as an appositive reflects capability to use syntactic complexity.

4.3 Nominal clause as prepositional complement

The paper further reveals that **that** nominal clause can be used as a prepositional complement and this observation is reflected in examples, (t), (u) and (v) in the FOA, FOL and FOST.

(t) *Therefore^ having such knowledge, they will be in a position [to decide together on **[what could be their objectives, things they need [to achieve]] based on [what they have and lack. [sic] in their area].** (FOA)*

Example (t) illustrates the **wh**-nominal clause that functions as a prepositional complement because it is preceded by the preposition, on. In this structure, two **wh**-nominal clauses are noted and they appear at the end of the sentence.

(u) *Something different from **[what is handed down in the courts of law, [that law is reason and Justice]** [sic] Holmes goes further and said **[that [what is hold to be law by different writers is different from [what the friend bad man view [sic] law.** (FOL)*

As shown in example (b), the **wh**-nominal clause I preceded by the preposition, from and as such, it is used as a prepositional complement. It is placed at sentence-internal position.

(v) *The group would meet as an attempt [to randomly mention* [**what the system needs to do on a much broader level.]** (FOST)

Example (v) also shows the structure where the **wh**-nominal clause is introduced by the preposition, to which is post-modified by the adverb, randomly and the verb, mention. This noun clause is placed at the end of the sentence. This finding implies that NUL students are not familiar with the use of nominal clause as a prepositional complement since it is reflected in only three out of the seven faculties. That is, this idiosyncratic use of **that** nominal clause as a complement in the paper indicates that the majority of NUL students are not familiar with this particular syntactic function of **that** nominal clause. This is evidence that even though they reflect competence in applying syntactic complexity, they are not aware of the existence of the function of **that** nominal clause as a complement in forming syntactic complexity. This means that instructors must bring in their own observation to use **that** nominal clause as a complement in order to form syntactic complexity. TGG assisted the researcher to identify the sentence structures in the writing of the participants and to be aware of the recursive structures and merge in MP. CG was used to note whether the participants produced grammatical sentences or not.

Another stimulating observation is that of embedding of nominal clauses within others such as in the following examples: Example (j) reflects **To**-infinitive embedding **that** nominal clause. In example (I), **that** nominal clause embeds adverbial clause of purpose whose subordinator is **in order to,** in (a), **that** nominal clause embeds a **wh**-relative clause. In the case of example (0), **that** nominal clause embeds another **that** nominal clause which functions as appositive clause. As demonstrated in (e), **To**-infinitive embeds **that** nominal clause. Example (r) shows an embedding of **that** nominal clause which has embedded **To**-infinitive within a **To**-infinitive and in the same structure, **that** nominal clause embeds an adverbial clause of place and example (q) indicates embedding of time adverbial whose subordinator is **before** within **that** nominal clause. This finding proves that NUL students are able to build syntactic complexity through the process of embedding and this observation is supported by Smit's (2004) who asserts that embedding of subordinate clauses is crucial in the formation of syntactic complexity.

In the same way as **that** nominal clause is noted, the **wh**-nominal clauses perform certain syntactic functions such as being the subject as indicated in example (b), object as illustrated in (t) in the second occurrence, (u), (f), (g) and (h). This category further functions as a prepositional complement as shown in examples (s) and (t) since they are preceded by the prepositions, **on** and **from** respectively. Embedding of nominal clauses is further noted with regard to **wh**-nominal clauses in examples (s), (t), (u) and (0). This category is further observed at the beginning internally and at the end of the sentences.

Both **wh**-nominal and **that**-nominal clauses are specifically observed as finite clauses because their verb phrases reflect tense. From these observations and discussion, **that**-nominal clause can be used in subordination to form syntactic complexity. In this environment, **wh**- and **that**-nominal clauses indicate an ability to form syntactic complexity and they are used

appropriately. This ability demonstrates that TGG and CG helped the researcher to observe merging and recursive of the clauses to produce complex sentences and the CG helped to note whether the sentences were grammatical or not.

5. Results and Discussion

The findings reflect nominal clauses in the current data and where they are observed, and whether they have been used appropriately. Berk (1999) writes that a nominal clause performs the same functions that are performed by a simple noun phrase. Berk (ibid) and Leech et al. (2002) state that a nominal clause also functions as a prepositional complement. Berk (ibid) says that the nominal clause serves the functions of a subject as in example (a), direct object as in (c) and as a prepositional complement as shown in example (u). According to CSS Course Reader (2010/2011) nominal clauses can also function as appositive clauses as illustrated in (h). That is, it may be used in apposition either to the subject or object. The present paper supports these statements as it observes a nominal clause as one of the finite clauses that functions like nouns. Berk (1999:228) states that its verb phrase is finite as it reflects tense. The examples showing how they are demonstrated in the current data are provided in (a) – (v) below.

It is noted that in the present study, nominal clauses perform four syntactic functions. They are demonstrated as subjects, direct objects, appositives and prepositional complement.

6. Conclusion

The first objective of the study was to investigate the syntactic complexity of NUL students' writing through the use of nominal subordinate clause. The second objective was to explore its syntactic use whether it has any syntactic functions or not and whether students are aware of its textual functions. In this regard, this paper concludes that the NUL students use nominal clauses appropriately. The paper has achieved the proposed aims. The first research question of the study was to find out whether NUL students use nominal clause and whether they use it appropriately or not. The researchers was also interested in exploring what its syntactic and textual functions are. The assumption was that the use of nominal clause is frequent in students' writing.

The second assumption was that the students are aware of syntactic and textual functions of this feature. The two *assumptions are supported. The students have a reasonably frequent use of nominal clause. This is an indication that they have a fairly good control of the syntax of English.*

 A further conclusion is that students have an intuitive awareness of the syntactic functions of nominal clause as a subject, a direct object, an appositive and prepositional complement. The paper further demonstrates the textual functions at sentence initial, internal and final positions.

6.1 Recommendations

The paper recommends that the instructors introduce the syntactic function of prepositional complement to the students while teaching nominal clauses since NUL students' writing reflect that they are not familiar with this particular function. The present paper did not involve the students from the Department of English since the researchers assumed that such students may perform better than the other students from different departments across the faculties because they are extensively introduced to the grammatical rules of English Language and this type of genre as English is one of their majors. Future research is therefore required to involve the students in the Department of English in order to observe how they perform.

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