A Quantitative Study on Noun Clauses in Applied Linguistics Research Articles between Q1 SCOPUS and TCI 1 Databases

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Abstract

This study investigated the syntactic structure of noun clauses, which were made up of their form, meaning and use. The study sought the correlation between noun clauses and three linguistic variants, such as the overt complementizer that, the semantic denotations of non-subjectivity and the preferences of noun clause. The data under study included 20 applied linguistics research articles taken from System and Journal of Studies in the English Language. There were 123 noun clauses available in this study. The data were analyzed by using the SPSS 29 with the inferential statistic tool called Pearson Correlation. The results clearly showed that there was a statistically significant relationship between noun clauses and the overt complementizer that, both in System and Journal of Studies in the English Language where their p-values were reported at .000 and .025, respectively. In addition, a statistically significant relationship between noun clauses and expressions of non-subjectivity was shown in System where the p-value was reported at .033. However, this significant relationship was not found in Journal of Studies in the English Language. The results of this study were explained by the principle of formality and pragmatic discourse of given and new information. It is expected that the results in this study will be useful for learners of English as a Foreign Language (EFL) in terms of applying the structure of noun clauses in applied linguistics research articles correctly and appropriately.

Keywords: Applied Linguistics Research Articles, Noun Clauses, Pearson Correlation

Introduction

Noun clause complement is syntactically classified as a CP structure in English generative grammar [1]. The structure is generally used for reporting information. In order to form the noun clause complements in English, there are various linguistic elements which the users are required to know. Consider the sentence below in order to understand the linguistic features of noun clauses.

(1) Chomsky addressed that language is systemic.

Syntactically, it is acceptable for the CP complementizer that to be either overt or covert [1]. Omitting the complementizer that in the structure of noun clauses does not affect grammaticality of the sentence as in Chomsky addressed language is systemic. However, different variants are preferred to be used in different genres, or different types of texts.

From the syntactic variants of the overt CP complementizer that, the semantic denotations of noun clauses in English are examined via two aspects which are the matrix verbs in the main clauses such as addressed and the semantic denotations of noun clauses [2-3]. The first aspect is the semantic denotation of the matrix verbs. They are divided into
different semantic classifications, such as communication verbs and cognitive verbs. Communicative verbs are verbs of reporting as exemplified by *address, indicate, report, point out* and *say*. In addition, cognitive verbs referring to the verbs of perception, thinking and emotional expressions include *feel, know, believe and think*. In addition, the second aspect of semantic denotations of noun clauses is *subjectivity*, which refers to the writers’ assessment or attitudes toward certain entities. The information in the noun clauses as in (1) *which is language is systemic* has the semantic denotation of *non-subjectivity*, sometimes known as *factuality*. This study investigates whether the structure of noun clauses in applied linguistics research articles is used for either subjectivity or factuality.

Pragmatic aspects in this study refer to the specific context that noun clauses are likely to be used in more frequently than others in applied linguistics research articles. The specific context in this study refers to different research sections, such as introduction, literature review, methodology, the results of the study, discussion and conclusion. The linguistic expressions of syntax, semantics and pragmatics in the above sections allow us to see that there are different factors to think about before applying the structure of noun clauses in written texts. These factors are inseparable and tied together into a noun clause to communicate certain meaning and the writers’ intentions. For example, some verbs in the matrix clauses prefer to be used with the complementizer *that*. However, other verbs in the matrix clause prefer to be used with the zero variant of the complementizer *that*, such as *I think* and *I believe*. These examples are used formulaically or technically, known as *collocation*. Therefore, this study seeks the correlation of how different linguistic features are combined into noun clauses in applied linguistics research articles.

A number of related previous studies focused on the use of noun clauses in English. The structure of noun clauses in English bedtime stories was studied with 162 sentences of noun causes [4]. The majority of the verbs in the matrix clauses are cognitive verbs such as *believe* and *think*. Specifically, these verbs are preferred to be used with the covert complementizer *that*. This could be because the degree of formality in English bedtime stories is lower, so spelling out the complementizer *that* is not important in this genre. It seems that the complementizer that was preferred in formal genre, such as medical text and researcher article. On the other hand, the omitting of complementizer *that* was preferred in informal text. While previous studied focused on informal text such as novels and bedtime stories, this study filled the gap by examining at a formal register, such as applied linguistics research articles.

The semantic denotations of noun clauses were studied in medical texts and they were frequently used for evaluations or presenting personal subjectivity [5]. Technically, these are called *evaluative that-clauses*, such as (2).
Recent work indicates that common genetic variants associated with inflammation may also increase the risk for developing AD. [5]

Example (2) shows that the *that*- clause complement is overt and the whole clause is used to evaluate a previous study via a possible degree of epistemic modality *may*. The overt complementizer *that* is always spelt out in medical texts. Based upon the study conducted by Kim and Crosthwaite (2019), the complementizer *that* seems to have a relationship with the higher degree of formality in texts.

Varieties of texts, such as EFL writing, novels, and magazines were used to investigate the use of noun clauses with different linguistic variants. This study contributes to the field of noun clauses by selecting the materials of applied linguistics research articles for several reasons, to contribute to the field of ESP. Research papers on academic writing in ESP focusing on applied English linguistics have been increasingly popular over the last decade [6]. Writing applied linguistic research articles requires the writers to follow the norms of writing, sentence structures and vocabulary in order to communicate effectively and appropriately. The second reason is that learning noun clauses as a whole, where form, meaning and use are learned simultaneously could help support the writing of EFL learners. In prescriptive grammar, most grammar books focus on form, while the meaning and usage of noun clauses are not adequately explained [7]. This leads to learners’ problems when it comes to actual use as they do not know when and why one variant is used over the other in specific contexts. The third reason is that it provides a contribution to younger or junior researchers who would like to try to publish their research papers in SCOPUS and Tier 1 databases, where Tier 1 is the first national ranking of publications in Thailand. This study provides some examples as empirical evidence for them to use as their own guideline of structure and writing. This information leads to the following objectives and research questions.

Objectives of the Study

1. To investigate the relationships between the overt complementizer *that* and noun clause complements in applied linguistics research articles
2. To investigate the relationships between the noun clause complements and the semantic denotations of non-subjectivity in applied linguistics research articles
3. To investigate the relationships between the noun clause complements with their preferences in the section of introduction in applied linguistics research articles

Research Questions

1. Is there any statistically significant relationship between the overt complementizer *that* and noun clause complements in applied linguistics research articles?
2. Is there any statistically significant relationship between the CP noun clause complements and the semantic denotations of non-subjectivity in applied linguistics research articles?

3. Is there any statistically significant relationship between the CP noun clause complements with the section of introduction in applied linguistics research articles?

**Hypothesis of the Study**

1. There is a statistically significant relationship between the overt complementizer *that* and noun clauses complements in applied linguistics research articles.

2. There is a statistically significant relationship between the noun clause complements and the semantic denotations of non-subjectivity in applied linguistics research articles.

3. There is a statistically significant relationship between the noun clause complements with the section of introduction in applied linguistics research articles.

**Methodology**

**Conceptual Framework**

**Dependent Variables and Independent Variables**

This section shows the dependent variables and independent variables in the current research study.

```
Independent Variables
Noun Clauses in Applied Linguistics Research Articles (SCOPUS Q1)
Noun Clauses in Applied Linguistics Research Articles (Tier 1)
```

```
Dependent Variables
• Syntactic Structures
  ○ Overt *that*
  ○ Covert *that*

• Semantic Denotations
  ○ Subjectivity
  ○ Non-subjectivity

• Pragmatic Aspects
  ○ Introduction
  ○ Non-Introduction
```

**Figure 1 Dependent Variables and Independent Variables of Noun Clauses in Applied Linguistics Research Articles**

Figure 1 shows the independent variables and dependent variables in the current study. This study seeks the correlation between noun clauses and different linguistic variables, such as the overt complementizer *that*, non-factuality and the productivity of noun clauses...
in introductions. The section of introductions in this study also includes literature reviews as most published research papers include these two sections together due to limited space or the format of writing.

**Research Tool-Coding Scheme**

This research study was made up of two research questions. This section illustrated how each research question was answered.

**Table 1** Research Questions, Research Design and Instruments

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Research Designs</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is there any statistically significant relationship between the overt complementizer that and noun clause complements in applied linguistics research articles?</td>
<td>Quantitative approach</td>
<td>Tool-Coding Scheme SPSS 29</td>
</tr>
<tr>
<td>2. Is there any statistically significant relationship between the CP noun clause complements and the semantic denotations of non-subjectivity in applied linguistics research articles?</td>
<td>Quantitative approach</td>
<td>Tool-Coding Scheme SPSS 29</td>
</tr>
<tr>
<td>3. Is there any statistically significant relationship between the CP noun clause complements with the section of introduction in applied linguistics research articles?</td>
<td>Quantitative approach</td>
<td>Tool-Coding Scheme SPSS 29</td>
</tr>
</tbody>
</table>

**Data Collection**

This study is quantitative research which is based on non-probability sampling method. The data in this study is applied linguistics research articles. The data collection totally consists of 20 research articles where 10 applied linguistics research journals came from *System* and 10 applied linguistic research articles came from *Journal of Studies in the English Language*. These journals were selected based on purposive sampling methods. They are up-to-date research journal in the field of applied linguistics. Various topics of applied linguistics research were included in this study, such as teaching approaches, teaching and technologies, assessment and evaluation, and language use of ESL and EFL learners in order to study how languages were used. So, when novice researcher would like to study applied linguistics in the field of language teachings, they had examples to follow how to write.

*System* is a SCOPUS Q1 international journal of the United Kingdom (UK), whereas *Journal of Studies in the English Language* is a national journal in Thailand, which is ranked in Tier 1.

The research articles gathered to be studied were published between 2020 and 2023, which are the most up-to-date publications at the time of the study. The data collection
was gathered by the sentence level where all linguistic features of noun clauses could be investigated. The data was collected on January, 2024. The data collection in this study is illustrated below.

The findings hence suggest that [OVERT THAT] the JEP offers a novel and fruitful platform for nurturing self-reflection, building metacognition and self-awareness, [NON-SUBJECTIVITY OR FACUALITY] allowing for self-discovery and peer discoveries, as well as establishing effective student collaboration. [EXTRACTED FROM THE RESULTS] [6]

The excerpt above represents a sentence of data collection in this study where there are linguistic variants to study. At the level of syntactic structure, the complementizer that is overt. The semantic denotation is factual. The context of this extracted token is the section of results. It was collected as a concordance line in Microsoft Excel for the next step of the data analysis via the coding into SPSS program version 29.

Once the process of collecting the data has been completed, the data analysis of linguistics in this study follows [1,2,8]. The data analysis in this study was divided into three linguistic layers, which are syntactically, semantically and pragmatically. The data analysis of syntactic structure of noun clauses follows Radford’s (2016) generative grammar, referring to the systematic use of language. The variants of syntactic structures in noun clauses are divided into zero complementizer that and the spelling out of the complementizer that.

The codes of syntactic variants of complementizer that were shown as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>CP Complementizer that</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 1</td>
<td>Noun clauses with overt complementizer that</td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>They speculated that increased listening and planning time contribute to ease in conceptualization and delivery. [9]</td>
<td></td>
</tr>
<tr>
<td>Code 2</td>
<td>Noun clauses with covert complementizer that</td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>The researchers hope the results of the study will be useful for EFL learners.</td>
<td></td>
</tr>
</tbody>
</table>

In terms of semantic denotations, the principles of analysis are subjectivity. According to Nuyts (2001), subjectivity refers to the writers’ attitudes, opinions and evaluation toward certain entities. This study examines whether the researchers in applied linguistics research articles express factuality or subjectivity via the structures of noun clauses where the codes of analysis were given as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Non-Subjectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 1</td>
<td>Noun clauses with the semantic denotations of factuality</td>
<td></td>
</tr>
<tr>
<td>Code 2</td>
<td>Noun clauses with the semantic denotations of subjectivity</td>
<td></td>
</tr>
</tbody>
</table>

The pragmatic aspects refer to specific context of language use [6]. The use of noun clauses in specific context of applied linguistic research articles includes introduction-literature
reviews, research methodology, the results of the study, discussion and conclusion. The use of noun clauses in different sections are provided different codes as follows:

<table>
<thead>
<tr>
<th>Code Name</th>
<th>Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 1</td>
<td>The use of noun clauses in introduction</td>
</tr>
<tr>
<td>Code 2</td>
<td>The use of noun clauses in non-introduction</td>
</tr>
</tbody>
</table>

Data Analysis

In order to seek the correlations between noun clauses and the variables above, the inferential statistical data SPSS version 29 with Pearson Correlations were applied for the data analysis in this study. Once all information was completely coded into the SPSS29 program, the researcher clicked analyze, and then clicked correlate. Finally, the researcher clicked bivariate to select variables. The data coded was analyzed by SPSS program. This method leads to the results of the study.

The Results of the Study

The results of this study are divided into three sections. There are the overt complementizer that, the semantic denotations of (non)-subjectivity in noun clauses and the use of noun clauses in different sections in applied linguistics research articles between SCOPUS Q1 and Tier 1.

The Overt Complementizer that in Applied Linguistics Articles

Syntactic structures of noun clauses are divided into two linguistics variants. The first one is the overt complementizer that. The second one is the covert complementizer that. As a total of 65 noun clauses in this study, 63 tokens were found to be used with the complementizer that. On the other hand, only two tokens were found to be used with the omitted complementizer that. The inferential statistical data of overt complementizer that between System and Journal of Studies in the English Language are compared in Table 2 and Table 3.

Table 2 Pearson Correlation between Noun Clauses and the Overt Complementizer that in System

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Noun Clauses</th>
<th>Overt Complementizer that</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.999</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000*</td>
</tr>
<tr>
<td>N</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>

Statistically Significant at *$P \leq 0.05$
Statistically Significant at **$P \leq 0.01$
According to Table 2, there is a statistically significant relationship between the use of noun clauses and the overt complementizer *that* in *System*. The p-value between the two variables was reported at .000. It means that a correlation was significantly found between noun clauses and overt complementizer *that* in *System*.

**Table 3** Pearson Correlation between Noun Clauses and the Overt Complementizer *that* in *Journal of Studies in the English Language*

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Noun Clauses</th>
<th>Overt Complementizer <em>that</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.854</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.025*</td>
</tr>
<tr>
<td>N</td>
<td>58</td>
<td>58</td>
</tr>
</tbody>
</table>

Statistically Significant at *P ≤ 0.05*

According to Table 3, there is a statistically significant relationship between the use of noun clauses and the overt complementizer *that* in *Journal of Studies in the English Language*. The p-value between the two variables is reported at .025. It means that a correlation is significantly found between noun clauses and the overt complementizer *that* in *Journal of Studies in the English Language*. Examples of the two variants in applied linguistics research articles are given as in (3).

(3)

(a) They speculated *that* increased listening and planning time contribute to ease in conceptualization and delivery. [9]

(b) These findings show *that* the orchestration across digital spaces depended critically on the learners’ agency and creativity to make strategic connections in alignment with personal interest and need. [5]

(c) The results of the study indicated *that* learners rated task 3 to be the most difficult task while task 2 was more difficult than task 1. [10]

Examples (3) show that the use of noun clauses is colligated with the overt complementizer *that*. The overt complementizer *that* is colligated with the communication verb *speculated*. On the other hand, the overt complementizer *that* is colligated with the presentation verb *show*. Therefore, there is no difference in the variant of overt complementizer *that* between *System* and *Journal of Studies in the English Language*.

**Semantic Denotations**

**Semantic Denotations of (Non)-Subjectivity**

Subjectivity refers to personal attitudes, opinions or evaluation towards someone or something. Noun clauses used with the semantic denotations of factuality are given in Table 4.
Table 4 Pearson Correlation between Noun Clauses and Non-Subjectivity in *System*

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Noun Clauses</th>
<th>Non-Subjectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun Clauses</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.033*</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>65</td>
</tr>
</tbody>
</table>

Statistically Significant at *P ≤ 0.05

Table 4 reveals the statistically significant relationship between noun clauses and non-subjectivity through the inferential statistic tool of Pearson Correlation. The p-value is reported at .033. This means that there is a correlation between noun clauses and non-subjectivity in *System*. Although the majority of noun clauses in applied linguistics research articles are used with the semantic denotations of non-subjectivity, only two examples were found with the semantic denotations of subjectivity in this study. These are viewed as distinctive authentic examples to look at.

(4)

(a) In designing the survey to conceal the covert research focus of PMs, we expected that few raters would comment on PMs explicitly, failing to notice them or not knowing how to refer to them if they did. [7]

(b) Some twenty years after Dornyei (2005) first proposed that motivation for language learning could be conceptualized as a self-system, the purpose of this article is to critically evaluate this key contention. [11]

The noun clause in example (4a) shows that the writer notes his own epistemic evaluation towards the rater’s comment via the linguistic expression of the epistemic marker would or medium degree of epistemic modality. In example (4b), the use of that- clause complement is semantically interpreted as factuality. The researchers report the result of their study concerning the positive relationship between speech and motivational intensity.

Table 5 Pearson Correlation between Noun Clauses and Non-Subjectivity in *Journal of Studies in the English Language*

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Noun Clauses</th>
<th>Non-Subjectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun Clause</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>58</td>
</tr>
</tbody>
</table>
Table 5 presents the statistically significant relationship between noun clauses and non-subjectivity through the inferential statistic tool of Pearson Correlation. The p-value was reported at .597. This means that there is no statistically significant relationship between noun clauses and non-subjectivity in *Journal of Studies in the English Language*. Some examples of subjectivity in noun clauses in *Journal of Studies in the English Language* are presented as follows:

(5)  
However, the author suggests that *study of language use in the moves of online advertisements could integrate in creating teaching materials in order to make them more practical.* [12]

In example (5), the researchers show their opinions that it is possible for the teachers to combine the use of advertisement in move analysis with their teaching materials. To sum up this section, a significant relationship between noun clauses and factuality was found in *System*, but not found in *Journal of Studies in the English Language*.

**Correlation between Noun Clauses and the Section of Introduction**

Pragmatic aspects of noun clauses in this study refers to specific context in applied linguistics research articles that noun clauses are used. The specific context in research articles refers to the sections of introduction and non-introduction (i.e., methodology, the results of the study, discussion and conclusion) The inferential statistical data of noun clauses and introduction section in applied linguistics research articles are reported in Table 6.

**Table 6** Pearson Correlation between Noun Clauses and the Section of Introduction in *System*

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Introduction</th>
<th>Noun Clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>65</td>
</tr>
</tbody>
</table>

Table 6 presents that there is no statistically significant relationship between noun clauses and the section of introduction where the p-value was reported at .842. Nonetheless, when the use of noun clauses in introduction was calculated via descriptive statistical data or percentage. It seems fair to claim that the use of noun clauses in applied linguistics research is productive in the section of introduction such as (6).

(6) Yet, research has shown *that depending on the context PMs have a wide variety of discursive functions.* [9]

The noun clause is mostly used in the introduction section to link the given information of previous research studies to the new information in the present study.
Table 7 presents that there is no statistically significant relationship between noun clauses and the section of introduction in *Journal of Studies in the English Language*. The p-value was reported at .853. Having provided the results of this study, the discussion is given in the following section.

**Discussion**

**Principle of Formality**

The different variants of the complementizer *that* are explained by the principle of formality. *Level of Formality* in language use depends on the genre of texts (Zareva, 2009). Higher levels of formality were usually found in academic genres. This complies with the use of noun clauses in this study where the use of the complementizer *that* is always used with the noun clauses in applied linguistic research articles.

(7)

(a) The data revealed *that* students acquired higher pragmatic awareness and had positive views regarding explicit training on email literacy. [5]

(b) The participants unanimously agreed *that* they had never deeply reflected on their current or future lives or considered the role of English in their personal and professional domains. [5]

Regarding the meaning of verbs in matrix clauses, the complementize *that* is always overt. The spelling out of the complementizer *that* in applied linguistics research articles implies the formality of this genre. The formality is also relevant to the target readers as the readers of research papers are scholars, professors and graduate students. The results of this study are compared with Wongkittiporn (2021) who studied noun clauses in children’s bedtime stories, where the level of formality is lower than applied linguistics research articles. It was found that approximately 80 percent of the complementizer *that* is covert in English bedtime stories as in (8).

(8) “I thought I was in love with a monkey.” [14]

Example (8) shows the covert *that*. Moreover, example (8) is used inside quotation marks referring to spoken register. Therefore, this is evidence to support the lower level of formality of noun clauses in English bedtime stories. The principle of formality as explained above is also linked with the stylistics in writing. The authors of different genres have their
own stylistics in writing [15]. For example, the writing styles of news reporters is likely to be short and direct to the point as news readers normally skim for keywords. However, the researchers write with details, examples and elaboration. Moreover, the researchers need to be careful with their expressions and make their articles formal to increase the validity and reliability of their articles.

Pragmatic Discourse of Given and New Information

Noun clauses are productively used in the section of introduction. This could be explained by the pragmatic discourse of given and new information referring to providing the old information before giving the new information concerning the current study (Birner, 2006). Noun clauses are used to report factual information as given information that comes from previous research studies. The information is given in terms of what was found by previous studies as a summary of information before the new information in the study will be given. The researchers use information from previous studies to inform what was found or shown. Therefore, the given information which comes from previous studies is mostly written in the structure of noun clauses.

(9)

Studies by Papi and his colleagues have shown that both ideal and ought selves could contribute to motivation, emotions, learning behavior, and achievement, but in qualitatively different manners. [16]

(b) They speculated that increased listening and planning time contribute to ease in conceptualization and delivery. [9]

The statement in noun clauses as in (9) is the information about the contribution of ideal and ought from a previous study and this is interpreted as old information used to link with the investigation in the current study. Moreover, the noun clauses are used for providing the contribution of the study.

Conclusion

This current study forms the specific definition of noun clauses in applied linguistics research articles. The results of this study contribute to the definitions of noun clauses in English for Specific Purposes (ESP) as follows:

Noun clause in applied linguistics research articles is defined as a formal structure for reporting factual information. This factuality is the results from previous studies, statistical data, and examples that are used as a back up information in the current study. They are old information to link with the new information, new hypothesis and variables that are used for investigation in new studies. Even though the structure can be used in every section, such as methodology and the findings of the study, it is productively used in the section of
introduction. The complementizer that must be overt or spelt out as in “the data revealed that students acquired higher pragmatic awareness and had positive views regarding explicit training on email literacy [5]”. The use of noun clauses in this study is similar to the medical texts, which required the high level of formality and it complied with the theory of end weight principle where the elaboration of information was placed at the final position of the sentence [5].

This definition of noun clauses in ESP leads to certain implications in the current study. ESP teachers who teach academic writing for research, writing research proposals and independent study could apply this specific definition to teach English language learners how to use noun clauses in research writing. This is because the structure of noun clauses in research writing is different from those noun clauses in other genres of writing. Therefore, form, meaning and use could be studied at the same time. English language teachers could apply the results of this study as their pedagogical applications in order to teach their students who enroll to study the subject of academic research writing and especially those who help their graduate students to proofread their academic writing. Generally, most graduate students learn the subject called research methodology either qualitative research and quantitative research. However, not every university provide a causes of research wiring in English. the students seem to become struggle when they need to start writing a research paper in English on their own. This current research paper helps student to improve the quality of language use when it comes to their own research writing in English.

However, the results of this current study are only applicable to the noun clauses in applied linguistic research articles. Applying the results of this study to other text varieties may not be applicable to the optimal level. For future research studies, it is recommended that a study of other syntactic structures in applied linguistics research articles could contribute something new to the field of ESP.

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References