

Towards a Computerized Linguistic Assessment of Formal Writing

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Abstract- The purpose of this research is to present the application of grammatical metaphor (nominalization) and some other formal English features in such written texts as formal reports or research papers that can lead to the formation of computer-assisted assessment. The study begins by presenting the definition of a formal report as a written text and categorizing them as more complex than the oral discourse of word-of-mouth conversations. It next reviews the concepts of systemic functional theory by which the oral communication form is transformed from speech to literature. It then provides the nominalization in details, considering some aspects of systemic functional theory such as discourse makers, meta-functions and information packing. The study also includes an survey of 1000 written academic texts to find out the ratio of nouns to verbs, and mentions how students' the awareness of using informal and formal English is raised in their writing reports. The research focuses on the survey of a group of the students in an English-medium university whose English level is between intermediate and early advanced, resulting in the tentative writing of a software program that benefits both teachers and students. It concludes with suggestions for further research using the application to investigate gaps in knowledge of computer-based natural language processing.

Key words: *anaphora, congruent, discourse marker, experiential, incongruent, interpersonal, meta-function, metaphorical, nominalization, packing, textual, unpacking*

1. Introduction

Writing a formal report has always been a difficult task for students of both undergraduate and graduate levels. There have been numerous pedagogical materials that teach how to write formally. Formal writing refers to a formal report or a research report which is a planned and systematic method of collecting and analyzing data in order to solve a problem or to answer a question.

Most individuals seem to agree that reports are written accounts that objectively communicative information [Bovée & Thill, 2]. According to Weissberg and Buker [22], a research report is a

paper written to describe a research study that has been completed with the purpose of explaining what the objectives, methods, and findings of the study were. The report may then be published in a professional journal, or it may be written in the form of a thesis or dissertation as the partial fulfillment of the requirement for a university degree (Table 1). Weissberg and Buker stated that typical sections of the experimental research report has five parts, which are: Abstract, Introduction, Methodology, Results, Discussion. Lyons and Heasley [15], the websites of Language Learning & Technology [14] and of the Journal of Second Language Writing [11] suggested that the structure of a research report, a thesis or a research article should be referred to as IMRD, which stands for Introduction, Method, Results and Discussion. The study by Bovée & Thill [2] mentioned a similar format.

As for the part of theory discussion, Creswell [4] offered three placement locations for the literature review, which can be discussed either in the introduction to a study as it is done in Weissberg & Buker's and Lyons' studies, or it is written in a separate section, which is the most popular. The researcher may also incorporate the related literature in the final section of the study, where it is used to compare and contrast with the result to emerge from the study.

The findings of studies examining the use of various forms of academic writing and research skills have been mixed. Studies by McCormack and Slaght [17] indicated that the process of producing a piece of academic writing takes language learners step by step on the development of an independent approach to extended writing and research while studies by Blaxter, Hughes and Tight [1] shows little or no significant effects in how information conventions and language conventions are used in writing a research project.

Though many studies have mentioned how to write reports successfully, more studies need to be carried out to incorporate the linguistic features into the information conventions for writing formal reports and also to ascertain the effects of teaching

formal writing with the assistance of technology. That can lead to the computer-assisted instruction and learning of writing academic English. Since academic writing is a very crucial part for students who want to enter the tertiary level of education, and each discipline has its own criteria of acceptable and pedagogic discourse, there should be a positive approach that is of great help to university students. In the systemic functional linguistic approach, academic writing is closely attached to the social, cultural and educational contexts in which the discourse analysis is undertaken [Ravelli & Ellis, 20]. Moreover, Jones [10] emphasized on the application of systemic functional theory to the teaching and research of student's writing when they learn to write in the disciplines.

This study aims at presenting the development of a written formal report as a means of successful written communication in terms of the linguistic aspects based on the systemic functional theory by Halliday [7], Halliday & Matthiessen [9], Martin [16] and Eggins [6]; and to propose the computer-based natural language processing using information and language conventions. The aspects are the use of nominalization in paraphrasing techniques and information packing pursuant to the interpersonal and experiential meta-functions together with the textual meta-function using discourse markers to make the text coherent through scrutinizing 1000 written academic texts and the pieces of writing by the students of International University, Vietnam National University - HCM City to find out whether the students have made progress after taking a writing course of academic English (AE), thus leading to the possible application of computer-based natural language processing. The topic may be identified as being important to those who are concerned such as language instructors and those who just begin to write research or a paper for journals.

TABLE 1.1
STRUCTURE OF A RESEARCH PAPER

Information conventions (elements)	
ABSTRACT	<ul style="list-style-type: none"> - Background information - Purpose of the study - Methodology - Results - Conclusion and / or recommendation
INTRODUCTION	<ul style="list-style-type: none"> - Setting - Aspects of the problem already studied

- Need for more investigation (the research gap)
- Purpose/objectives (research question / hypothesis)
- Value or justification

LITERATURE REVIEW

The development of stage 3 in the introduction

METHODOLOGY

- Overview
- Sample
- Restrictions
- Sampling technique
- Materials
- Procedure
- Statistical treatment

RESULTS

- Locating the results
- Important findings
- Comments

DISCUSSION/ CONCLUSION

- Original purpose or hypothesis
- Important finding
- Explanation of the findings
- Limitations
- Implications of the study
- Recommendation for further research

REFERENCES (APA / MLA system)

Author(s). Date. *Title of Book*. Place of Publication: Publisher./
Title of Article. *Title of Periodical*, volume number, pages.
Other Information

Source: [Weissberg, & Buker, 22]

As it can be seen, the basic format that writers in the fields of both natural and social sciences use to report the findings of their studies or research projects (whether pure research, applied research or action research) is usually composed of six components, each of which has its own information conventions. As Lyons and Heasley [15] pointed out, though writers vary in their level of formality, it is expected that academic texts have certain predictable structures. In many academic texts such as a research report, a thesis or a research article, it is easy to see the organizational structures because the structure is marked by headings and subheadings.

2. Literature review

2.1 Systemic functional theory

The systemic approach to language is functional in two main respects: how language is used and how language is structured for use. According to Halliday [7], Halliday and Matthiessen [9], Martin [16] and Eggins [6], how people use language is the question of how people interact naturally using the authentic speech and writing in certain social contexts. As for how language is structured, language users interact through sounds, words or sentences to make themselves understood and understand others (Table 2.1)

TABLE 2.1
CONTENTS AND EXPRESSION OF LANGUAGE

CONTENTS	Semantics (meanings) Lexical-grammar (words & structures)
EXPRESSION	Phonology (sounds / letters)

Source: [Eggins, 6: 27]

From the linguistic perspective, the contents of a language are shown by the meanings through the use of words and grammatical structures. The expressions of the language are shown by the sounds in oral tasks or letters in written tasks. The structure of a report according to the systemic functional theory is as follows (Table 2.2).

TABLE 2.2
HOW PARAGRAPHS, ESSAYS AND REPORTS ARE CONSTRUCTED

Paragraph	Essay	Report
Theme/ Topic sentence	Introduction	Introduction
Concrete supporting	Body	Literature Methodology

evidence

Results

Rheme/
concluding
sentence

Conclusion

Discussion /Conclusion

Source: [Cox & Hill, 3:17]

A report, a paragraph or an essay is similar to each other with respect to the structure of theme / rheme in the systemic functional theory. The Systemic functional theory by Halliday [7] and Martin [16] on nominalization, whereby the process of grammatical metaphor leads the content plane, derives structures with many levels of interpretation as in the following example.

- a) *Jack was unhappy so Jill left.* (congruent)
- b) *Jack's unhappiness led to Jill's departure.* (metaphorical)

Sentence b) uses nominalization, which is the evolution of writing in English while sentence a) is the congruent structure used in spoken English. All of these things are reflected in the aspects of meta-functions in the systemic functional theory.

2.1.1 Interpersonal vs. Experiential meta-functions

According to Eggins [6], in terms of discourse semantics, experiential meanings focus on the action that human agents should carry out while interpersonal meanings focus on the role relationships with other people and their attitudes toward each other. Therefore, experiential meanings appear objective in scientific reports.

2.1.2 Textual meta-function (cohesion)

Also regarding discourse semantics, the textual meanings are clarified with the use of discourse markers, which are the signals or cues that point to the important ideas and features of a text, and play a very important role in making the text coherent. They link ideas together. The semantic system conjunctions can be realized through paratactic and hypotactic relationships within the clause complex and through cohesive conjunctions. Texts which are produced in this mode realize conjunctions as semantic relations between processes involving nominalization [Martin, 16:168].

- a) **After** our tour of the ring, we just wait
- b) Our tour of the ring is **prior to** our wait
- c) Our tour of the ring is **the antecedent** of our wait

In the sentences above, the connector “**After**” is semantically and formally changed (nominalized) into “**the antecedent**”.

2.2 Nominalization

2.2.1 Packing versus unpacking

Eggs [6] suggested that the lexical density of a text should be calculated by expressing the number of content carrying words in a text or sentence as a proposition of all words in a text or sentence. Clauses are chained together one after another in spoken language to give very long sentences, but in written language, relatively few clauses per sentence are used. This can be done by packing the text (nominalization) to increase the lexical density. The following is an example of packing versus unpacking.

Text A:

When an infant cries the sound compels people because it signals distress, which make it appropriate to the way the human infant depends for a long time on the person who cares for it.

Text B:

An infant’s incessant crying can lead to despair of caregivers.

In text A above, the phrases “*an infant cries the sound*”, “*it signals distress*” and “*the person who cares for it*” become “*infant’s incessant crying*”, “*despair*”, and “*caregivers*” in Text B. The nominalization here is the grammatical metaphor in which the meaning is congruently realized by the other language pattern, which is incongruent.

2.2.2 “Congruent” and “incongruent” in spoken and written texts

The language of a written text has a high lexical density while a spoken text has the syntactical complication including the detailed complex clauses [Halliday & Matthiessen, 9]. The following text is an example.

Text C:

In bridging river valleys, the early engineers built many notable masonry viaducts of numerous arches. (congruent)

In text C, the high lexical density can be showed in the phrases: *In bridging river valleys, notable masonry viaducts of numerous arches.* Compared with the following spoken text D.

Text D:

In the early days when engineers had to make a bridge across a valley and the valley had a river flowing through it, they often built viaducts, which were constructed of masonry and had numerous, arches in them; and many of these viaducts became noticeable. (incongruent)

which has a complicated grammatical structure. All the noun phrases such as “*In bridging river valleys, “notable masonry viaducts of numerous arches*” are complexly rewritten as: “*to make a bridge across a valley and the valley had a river flowing through it, they often built viaducts, which were constructed of masonry and had numerous, arches in them; and many of these viaducts became noticeable.*”

2.3 Formal, academic versus informal styles of writing

Lyons & Heasley [15] indicated some differences between academic and non-academic originate in the different disciplines and the ways in which they create and share knowledge; the relation to the audience (reader); and the use to which the text will be put. However, this separation between academic and non-academic is neither simple or absolute. Sometimes, non-academic features appear in academic texts; and in the other way round, academic features exist in non-academic texts. The levels of formality are shown in the following table.

TABLE 2.3
LEVELS OF FORMALITY

	Academic	Non-academic
Reader	Academics	Family and friends
Content	Serious	Conversational

Style	thought Complex sentences showing Considerable variety	Mostly simple and compound sentences joined by conjunctions such as <i>and</i> or <i>but</i>
Organization	Clear and well-planned	Less likely to clear and well organized
Grammar	Likely to be error free	May not always use complete sentences
Vocabulary	Technical and academic language used accurately	Use short forms, idioms, and slang

*which were added (**action**) different heavy mental concentrations.*

Text F:

*A laboratory study (**thing**) was conducted to determine the survival (**concept**) of water hyacinth under several conditions of heavy mental concentrations (**thing**).*

The use of verbs in Text A emphasizes actions and events. Meanwhile, the use of nominalization in Text B lays the emphasis on concepts and things. Here, the nominalization is used to make the writing seemingly more attractive and formal, and the piece of writing becomes more academic.

Source: [Lyons &Heasley, 15]

2.4 The grammar of academic discourse

TABLE 2.4
ACADEMIC VERSUS NON-ACADEMIC ENGLISH WRITING

Academic writing	Non-academic writing
Full forms	Shorts forms
Connectors	Connectors
Nominalization	Pronouns
Passive voice	Active voice
Concise vocabulary	Informal vocabulary
Point of view	Point of view

Source: [Lyons &Heasley, 15]

According to Lyons and Heasley [15: 95], academic writers often use the noun forms of verbs (nominalize) to focus their writing on general concepts and things while the use of verb forms focuses on actions or events.

Text E:

*In the laboratory we studied (**action**) how long the water hyacinth can survive (event) when grown (event) in vessels filled (**action**) with solutions to*

Nominalization is usually used to interpret the Results section of formal reports or research papers as in the following example.

Results

*The enterprises have contributed an **improvement** in skills and capacities of community members, as in the **production** activities in the HPU (honey-processing unit) and FPU (food-processing unit) are completely by the Soliga community*

Besides, nominalizations are in academic writing for these reasons.

1. Anaphora

*The units can **save** up to 45% of the cost of fuel. **Savings** increase if it is used as replacement for a petrol fuelled oven.*

2. Subject of a sentence

***Globalizations** has succeeded in uniting the peoples of the world.*

3. Precision

*The **reduction** in emissions is another important benefit.*

Compare:

Another important benefit is the fact that this can be used to reduce emissions.

4. Reduced relative clause in giving formal definitions.

*Medicine is the **study and treatment** of illness.*

Compare:

*Medicine is a branch of science which **studies and treats** illness.*

2.5 Paraphrasing

It is often difficult for language learners to understand how to paraphrase so that they may not plagiarize any originals because paraphrasing or summarizing are complicated academic skills and require their knowledge of the content, the disciplinary nature of citation practices, and the purposes of using citations in some specific contexts of disciplinary writing [Shi, 21]

Students need to learn how to use information from outside sources by paraphrasing to avoid plagiarism and the paraphrase should not be too similar to the original [Oshima & Hogue, 19: 128]. In the English language-using academic, it is vital that students' thinking should be their own, and that it should be represented in their own words with support by reference to the words of others. The way that we paraphrase a sentence, besides how to quote and how to use citations to integrate other people's texts into ours, in this article, depends on how we use word forms (nouns or verbs), what meta-function we focus on (interpersonal or experiential) as we can see in the following examples.

Original sentence:

A manager's success is due to perseverance.

Possible paraphrases:

1. *A manager often succeeds because of perseverance.*
2. *Perseverance often leads to managerial success.*

3. *A persevering manager is often successful.*

4. *Successful management is often a result of perseverance.*

5. *A manager who perseveres often succeeds.*

6. *Perseverance often causes a manager to achieve success.*

7. *Success is often the result of perseverance on the part of a manager.*

8. *If a manager perseveres, he or she often succeeds.*

9. *Perseverance often contributes to a managers' success.*

10. *The success of a manager often stems for perseverance*

It should be noted that alternating word forms results in alternating structures, so when the form of a word is changed, this involves a structural change in the sentence as well. The alteration can be shown in the following examples.

- a) *Reagan **succeeded** Carter as President of the US.
(Verb: to succeed)*

- b) *Reagan was Carter's **successor**.
(Noun: successor)*

2.6 Cohesion in academic texts

Cohesion is the grammatical and lexical relationships between the different elements (between different sentences or different parts of a sentence) Coherence depends on good cohesion which results from the fact that the interpretation of some elements in the discourse depends on that of another [Haliday & Hasan, 8]. This is realized by discourse markers, which are either words or phrases (to link ideas, to signal key points in a text), or connectives to serve to make a text coherent. They are also nominal groups that refer to their antecedents [Lambrecht, 13]. The coherence strategies are shown in the text below.

Text G

"The latest UN report on education says girls face sharp discrimination in access to

education, which means millions of them are prevented from attending school. In addition, the report says the lack of gender equality in education is an important obstacle to social and economic progress.

In many developing countries, particularly in South Asia and sub-Saharan Africa, there are only seven girls in primary school for every 10 boys. In the world's two most populous countries, India and China, boys continue to outnumber girls in schools.

The annual Education for All report by UNESCO says the proportion of girls in school did rise slightly in the past decade. Nevertheless more than half of the 104 million children out of school are still females, making gender parity in education a distant goal in more than 50 countries. The UN says that in many countries, high school fees, early marriage, and economic pressure to put children to work early block girls from school.”

TABLE 2.5
COHERENCE STRATEGY

Coherence strategy	Examples
Repeating a word or words from a sentence in the following sentence.	UN report - the report on education - in education seven girls - to outnumber girls primary school - in schools - developing countries - countries - million children - to put children
Use a synonym (word with same meaning) of a word from a sentence in the following one.	prevented from - block
Use a pro-form (e.g) in the following clause/sentence.	girls - millions of them
Use a sequence marker [e.g. Firstly, secondly/a), b), c)].	
Repeat a sentence structure.	In addition, Nevertheless

Use connectives (e.g, moreover, firstly, etc.).

Use a hyponym (e.g. police station → building/ car → means of transport females – girl, school - primary school, children - boys, girls

Source: [Lyons & Heasley , 15:128]

3. Methodology

The subjects of the study were:

- a) 1000 texts were randomly chosen out of thousands of texts in the National British Corpus (NBC, 1980s-1993).
- b) 51 Participants were the students from academic English classes in the second stage of writing courses (AE2).

3.1 The survey of academic texts

To find out the number of nouns in comparison with that of verbs in written texts, a survey of 1000 academic texts [National British Corpus, 18] was carried out.

3.2 The survey of the students from academic English classes

Students were enrolled in academic English writing courses (AE2) for writing formal reports where they were able to approach the use of formal English and to develop a knowledge base and experience in applying their theoretical skills to writing assignments. The research question addressed by this work is: “To what extent are AE2 writing students aware of the differences between formal and informal English?”

3.2.1 Participants

51 AE2 students were enrolled in a 30-period academic writing course as part of the English program at the International University, Vietnam national University HCMC. The group members were of the same age (19 years of age). The age of participants chosen in this report is 19 years of age, that is, the sophomores in an English – medium university such as the International University – Vietnam National University HCMC, whose English needs preparing for the study of major subjects, thus the comaparble academic status among the test

subjects was insured. The subjects were selected on the basis of successful performance of academic class I of writing essays (AE1) and the criterion was employed to assure the full completion of the course AE 2. The goals of the project were as follows:

- a) Develop the awareness of the use of formal English in an English foreign language (EFL) class.
- b) Develop candidates' skills in using formal English in learning writing academic English.

3.2.2 Procedures

Students were administered writing assignments at the beginning and the end of the course which is designed to help improve their writing skills regarding their use of English and overcome the barriers that they identify in integrating the use of academic English in their classroom practice. A set of writing tasks on a variety of categories (full form, nominalization, passive voice, and concise vocabulary) relating to the use of formal English were given to form the foundation for the instructional input component of the course. The instructional input integrates process and content in a way that provides experiential learning. These materials were a supplement to the required writing tasks relating to the actual content of the course. The students were given a final assignment in which each of them was asked to write a formal report after finishing content-based lessons.

4. Results

In the survey of 1000 academic texts, table 4.1 shows the statistics of the nominal density in which the number of nouns always outnumbers that of verbs. As for the frequency of nouns and verbs used in the texts, the number of nouns is counted, ranging from 5000 to 250000, and the number of verbs is counted accordingly. For every 5000 nouns used in the 1000 texts, about 300 to 1000 verbs are used. It can clearly be seen that the number of verbs (V) changes with every 5000 nouns (N). Therefore, the nominal ratio (R) of N to V is $R = V/N$. Nominal groups tend to be increasingly used in these academic texts, since more nouns are used, fewer verbs are used as this can be illustrated in the table below.

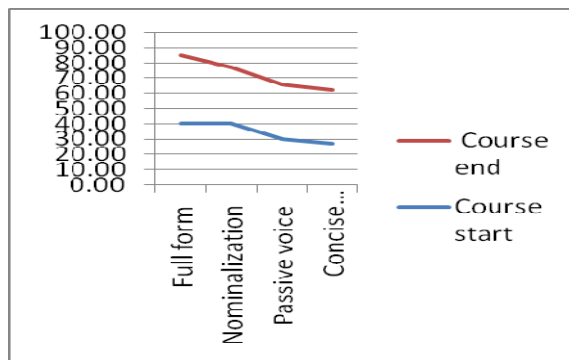
TABLE 4.1
THE NOMINAL DENSITY

The frequency of nouns used in 1000 English texts	The frequency of verbs used in 1000 English texts	Ratio of nouns & verbs used (R=V/N)
5000	2019	0.4038
10000	3034	0.3034
15000	4132	0.275466
20000	4957	0.24785
25000	5756	0.23024
30000	6391	0.213033
35000	7068	0.201942
40000	7745	0.193625
45000	8391	0.186466
50000	8915	0.1783
55000	9397	0.170854
60000	9884	0.164733
65000	10370	0.159538
70000	10796	0.154228
75000	11186	0.149146
80000	11624	0.1453
85000	12022	0.141435
90000	12701	0.141122
95000	13077	0.137652
100000	13467	0.13467
105000	13974	0.133085
110000	14275	0.129772
115000	14761	0.128356
120000	15146	0.126216
125000	15579	0.124632
130000	15965	0.122807
135000	16280	0.120592
140000	16552	0.118228
145000	16822	0.116013
150000	17027	0.113513
155000	17315	0.111709
160000	17610	0.110062
165000	17894	0.108448
170000	18376	0.108094
175000	18660	0.106628
180000	18897	0.104983
185000	19177	0.103659
190000	19506	0.102663
195000	19730	0.101179
200000	20010	0.10005
205000	20197	0.098521
210000	20454	0.0974
215000	20753	0.096525
220000	21086	0.095845
225000	21367	0.094964
230000	21630	0.094043
235000	21900	0.093191
240000	22144	0.092266
245000	22325	0.091122
250000	22598	0.090392

Source: [NBC, 18]

As for the course survey, the assignments that were given at the beginning and at the end of the course were analyzed and compared based on the criteria of using formal English (full forms, nominalization, passive voice and concise vocabulary), and the improvements were examined. The percentages were computed based on the number of participants.

FIGURE 4.1
THE PERCENTAGE OF PARTICIPANTS USING CATEGORIES OF FORMAL ENGLISH



The survey results (N = 51) showed that, as for the category of using full form, 98% of the participants wrote the full form, compared with 53% using contraction at the beginning of the course. In terms of nominalization, 77% of the participants were able to use nouns while 40% of them used verbs at the beginning of the course. For the category of passive voice, more participants (69%) used passive sentences in their writing than those (30%) using active sentences at the beginning of the course. For concise vocabulary, 62% of the participants managed to use concise vocabulary in comparison with 27 % of them using informal words when the course started.

5. Discussion

The survey of 1000 academic texts with the nouns outnumbering the verbs has showed that academic written reports tend to use formal language rather than informal language though the separation between the academic and non-academic is not simple or absolute. Non-academic style can happen in academic texts; and academic features can occur in non-academic texts [Lyons & Heasley, 15:17].

The effects of academic writing are very much obvious to academics. Understanding academic features such as academic vocabulary will help academic writers to learn to use special vocabulary

items for a subject area. Furthermore, it is true that academic texts have predictable patterns of grammar, organization, argument, and of giving credit to the work and words of others [Lyons & Heasley, 15:17].

The setting where AE2 students have the opportunity to approach the use of formal English is in their academic writing program. The research on this typical writing course has shown the considerable improvements made by the majority of the participants in writing academic texts after the students were given proper instructions. The differences between the percentages of the participants when the course started and ended were 45%, 37%, 39% and 35% for using the categories of formal English features: full form, nominalization, passive voice, and concise vocabulary respectively are the answers to the research question. Clearly, the findings have shown how the students developed an awareness of the importance of using formal English. It appears that the intensity of academic program applied to students in such an immersion environment as the International University results in substantial differences in performance of written academic English skill. The study can also be replicated to the setting of other colleges if English is the medium of instruction .

Writing a good report using nominalization or grammatical metaphor will help to make the report more academic and objective according to the systemic functional theory by Halliday and other developers of this theory. Based on the aspects of the theory, the experiential meanings focus on the action by human agents whereas interpersonal meanings focus on the role relationships between people and their attitudes to each other. The textual meanings are realized through the use of discourse markers. The use of nominalization also helps to pack information in writing formal scientific reports.

The above-mentioned language conventions combined with the information conventions in writing reports are quite accessible to the application of computer-based natural language processing. Therefore, the software based on the syntactical features of the text will analyze a text in order to assess its academics.

The software combining all modules (open source) can analyze English texts as follows.

a) Identifying, counting and showing in a text

1. Part of speech

2. Sentence patterns (It is stated that ..., It is a strong belief that..., etc.)
3. Sentence structures (passive, active, tenses, etc.)
4. Noun phrases (N1 of N2, Det + Adj + N, etc.)
5. Pronouns (We, I, etc.)
6. Terminology (claim, conclude, maintain, etc.)
7. Cohesion (first, in other words, etc.)

b) Showing all language features for teaching and learning

After that, the software will identify all the information elements in a report / thesis to support students in their pieces of writing based on the sample theses.

The format of a typical research report with full information conventions (Table 1.1.):

1. Abstract (5 elements)
2. Introduction (5 elements)
3. Methods / Methodology (7 elements)
4. Results (3 elements)
5. Discussion/Conclusion (6 elements)
6. References

The tool for editing and designing exercises works as follows.

1. Input the word document
2. Analyze the document
3. Suggest the correction
4. New version compared with the old version

Besides, the tool also does the work of references such as guiding how to use the references and suggesting the familiar ones according to APA or MLA styles. The below example follows the APA style.

e.g.

Writing Abraham >> Boxes suggest:

Abraham, R. (1985). Field dependence /independence in the teaching of grammar. *TESOL Quarterly*, 19(4) 680-702.

The following is an example of the how the tool rearranges the reference.

680-702, Field dependence/independence in the teaching of grammar. Abraham, R. (1985). 19(4) *TESOL Quarterly*

becomes

Abraham, R. (1985). Field dependence /independence in the teaching of grammar. *TESOL Quarterly* 19(4) 680-702.

The present study offers additional support for the importance of providing contextualized, hands-on practice together with the assistance of computer technology during writing courses to authentically develop a strong foundational knowledge base on which lecturer successful written communication can build technology into teaching, learning and actual practice to facilitate the development of skills related to computer technology use in the EFL classroom, as called for by Kessler [12] (Cited in [Dellicarpini, 5]). Combined, these activities enhance students' self-efficacy relating to computer technology and promote positive beliefs about the integration of computer technology into their ESL classrooms.

6. Conclusion

This article, which focuses on the use of nominal groups in writing academic texts and some other formal English features, has taken a step in the direction of defining the relationships between the interpersonal, experiential and textual meta-functions to identify such features as the number of nouns always outnumbering that of verbs through the survey of 1000 academic texts and the course survey of 51 AE 2 students to serve as the basis for computerized-text processing. It is possible in a certain way that other school environments with a different complex of levels and learning materials may produce entirely different results.

The findings show that although the study investigates the experience of a small group of students (N=51) in the single college setting for a writing course of 30 periods for 8 weeks, it may prove to be more effective when lecturers use computer technology than teaching using lecture-discussion techniques. The use of computer-assisted instructions will save lectures' time and efforts in trying to make student more familiar with academic English, which seems more difficult and complicated for intensive English learners. However, the computer-assisted instruction, although effective at raising students' awareness needs to be repeated in not only academic English teaching programs but

also non-academic English teaching courses such as intensive English.

While the course structure described in this study may not describe all the methodological aspects related to the recommendation of integrating computer technology into teaching, the study does provide evidence and resources for the positive effects such a report writing structure can have on teachers and students concerned, and ultimately on academic English student outcomes.

The report should be further developed into more electronic processes. By analyzing the texture, a designed software program can identify, count and show in a text parts of speech, sentence patterns (noun, verb and adjective patterns), sentence structures (passive, active, etc.), noun phrases, pronouns, terminology, and cohesion, together with the information conventions of a written report, and at the same time to suggest ways of corrections to render a better measure of report writing.

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