A Corpus-Based Case Analysis on Syntactic Complexity of Academic Depiction Writing\*

Li Zhang (张莉)

Donghua University, China

Abstract

English writing research on second language (L2) and English as a Foreign Language (EFL) have been of enormous interest among researchers and teaching practitioners. This research has focused on the frequent-used dimension of syntactic complexity to study “quality” of EFL learners’ written texts sampling from Donghua University Academic Written English (DHUAWE) corpus, which in 2018 consists of 392 texts with the capacity of 57,360 words. Nevertheless initial quantitative analysis on DHUAWE data seemed not to be able to support the findings of Clercq and Housen (2017) and Lei (2017) to show L2/EFL learners’ progressive trajectory, the analysis on syntactic complexity from DHUAWE sample texts showcases that: 1) syntactic complexity has been a parameter to trace learners’ writing development; 2) pitifully yet not surprisingly, more proficient learners tended to output more essay-like and argumentative-like texts in responding to and performing in the academic depicting writing task, hence failed in producing the typical feature and essential texts of that genre; 3) learners have generally poor genre knowledge and lack of familiarity to academic depicting, hence chances are that they may use various genres and discourses in disorder as a compensation to complete the writing task. The article ends with pedagogical implications on future L2/EFL teaching and researching.

Key words: syntactic complexity, academic depiction writing, case analysis, corpus-based, better quality

1. Introduction

It can be regarded as one of the research paradigms and trends to relate corpus linguistics and research methods to second language (L2) and English as a Foreign Language (EFL) writing studies (e.g. Lei). The latest decade has also witnessed the combination between genre analysis and writing pedagogy (e.g. Hyland). As teacher researchers, written products of student writers with mixed disciplinary backgrounds at various English proficiency levels could be complied as intended corpora, within their own sublevels or with the comparison to corpora of native speakers’ texts. The use of corpus-based text data could be the diagnosis together with sentence structure level problems, and be the outline of learners’ acquisition routes and phrasal and developmental trajectories. Similarly, various genres and genre research not only have the potential to provide teacher researchers with abundant writing teaching materials and objects, but also to be of help to boost writing pedagogical reforms and practices.

Corpus data are usually big and thereafter enable quantitative research to be feasible. This does not mean that sample texts from the corpus cannot be used as a case study to analyze “better quality”. Conversely, case study has its own strengths in, for example, concept comprehension, individual interpreting of meaning and so on. The combination of corpus data and the method of sample case analysis could bring new outlooks and ideas. It may have unexpected findings to link one genre which has less been researched yet needed to learn during tertiary teaching period. The exploration of oncoming problems and possible solutions will, in turn, facilitate corpus compilation, genre research and writing pedagogy.

In this article, one can find the combination of DHUAWE corpus data from EFL learners’ written texts, academic depicting genre and writing pedagogical implication. Previous articles of the three-year research program have been focused on fluency (Zhang, “Theory of Lexical Chunks"; Zhang, “A Corpus-based Analysis”) of learners’ linguistic competence, and writing course designing and assessing (Zhang, “Revisiting ‘Grading’ in College” 28). This article will concentrate primarily on syntactic complexity, another important metric of learners’ literacy. It starts in literature review on syntactic complexity research home and abroad and on a few applications of academic graph writing task in a testing environment. Three research questions will be put forward at the end of literature review section. In section three, local academic English teaching and learning context will be introduced, followed by the introduction to the participants of this research, and then corpus sample texts and taxonomy listing table tailored for the dimension of syntactic complexity. In section four of the article, reports from the corpus data on their syntactic complexity, detailed features of a few sample texts and the discussions on the answers to research questions will be unfolded. The last section will be pedagogical implication of possible findings on EFL writing teaching and researching in the future.

2. Literature Review

In this section, review on syntactic complexity home and abroad is to be elucidated, with major focus on learners’ writing competence and development as well as possible various routes and manifestations between native learners and L2 and EFL learners. The second half of the review has been on academic graph depiction and its application in L2 writing. With the lack of possible combination of syntactic complexity and academic depiction writing genre, the research questions and design will be displayed.

2.1 Review on Syntactic Complexity

Based on Ortega’s work, Lu (497) defines syntactic complexity as the “variety and degree of sophistication of the syntactic structures, where variety refers to the range of syntactic structures and sophistication refers to the extent to which the syntactic structures are complex.”

Corpus-based syntactic complexity research has traditionally been associated with syntactic elaboration, reflected by syntactic length and subordination. Like Bulté and Housen (“Conceptualizing” 43), in this research, the focus has been on absolute complexity, which is “a manifestation of objective properties of linguistic units and (sub-)systems.” Previous research practices on syntactic complexity have been critiqued negatively as focusing almost exclusively on syntactic length at the supraclausal level, e.g., Terminal (T)-units in writing research. In the research of complexity, there should be more descriptive angles and more dimensions in more detail. For example, Norris and Ortega (“Towards an organic approach to investigating CAF”) have argued that phrasal elaboration can better showcase the syntactic development, particularly in formal and academic writing. Similarly, Biber, Gray and Poonpon (“Pay Attention to the Phrasal Structures”) have also called upon phrasal structures to be studied as another dimension beyond the T-units and traditional descriptive and analytical corpus data on academic syntactic features. In line with them, Bulté and Housen (“Conceptualizing”) use syntactic phrasal complexity to measure L2 learners’ writing and conclude this metric reveals obvious progress in students’ short-term learning and has a certain correlation to subjective ratings.

Complexity research could also aim to find objective and quantitative ways to describe learners’ language learning processes (e.g., Bulté & Housen, “Defining”); it can additionally be the designing analyzers and tools to facilitate the study of syntactic complexity (e.g., Han & Lew). The latest corpus-based studies of syntactic complexity in academic writing in English have followed a cross-linguistic perspective (e.g., Clercq & Housen) examining L2 learners’ writing as well as advanced Chinese EFL learners and comparing them to native speakers (e.g., Lei). To this end, some studies have used three automated measurement tools to examine, inter alia, implications for writing assessment (e.g., Lu), while meta-analysis of L2 writing proficiency and syntactic complexity (e.g., Wu & Lei) has been carried out at the same time.

However, there seems no enough further description and interpretation of “better quality” and typical linguistic features of a certain genre. The perspective of combining a less researched academic genre with learners’ writing performance is the possible neglected area. This has become what this research intends to examine, i.e. corpus-based syntactic complexity analysis within academic subgenre of academic depiction writing by EFL learners.

2.2 Review on Academic Depicting Writing Task

Academic depicting writing, also used as The International English Language Testing System (IELTS) writing task 1, has been paid attention to and studied by writing researchers and test specialists. For instance, O’Loughlin and Wigglesworth (“Task design in IELTS academic writing”) report that no substantial differences seem to exist among low, intermediate and high levels of L2 learners on both graph information amount and information presentation, indicating that easier and simpler graph writing tasks have more validity in testing candidates’ English competence. Unlike them, Yu et al. focus on cognitive process of intending IELTS candidates, outlining three processive stages, namely, “comprehending non-graphically presented task instructions, comprehending graphic information and re-producing graph comprehension” (Yu et al.). Their report details in elucidation of cognitive processes and routes, and clearly shows the correlation between writing performance and writing topic, and the influence of writing training.

In addition to test specialists, graph writing tasks have also been studied by writing researchers such as Hui-Chun Yang (“Modeling”). Her study has been unfolded on ESP learners rather on intending IELTS candidates, however, her finding is similar to that of Yu et al., stating that L2 writers have “graph comprehension, interpretation, translation strategies” (Yang 174). These test strategies, together with “graph familiarity, topical knowledge, and test-wiseness strategy use” (ditto) have impacts on learners’ writing performance.

2.3 Research Questions

Therefore, the study has two major research questions as following:

1. **How complicated syntactically learners’ academic depicting proficiency have been?** (to be answered in 4.1)
2. **What are those comparatively advanced, namely, better quality of, depiction language features?** (to be evidenced in sample case analysis in 4.2)

There is one minor research question in the study, which would be a broader scrutiny on **discursive and stylistic features of academic depicting writing**, to be unfolded in 4.3.

3. Method

In this section, academic English writing contexts will be introduced first (3.1); then the participating students and team members will be followed (3.2). In 3.3, initial quantitative attempt failed to meet the research objective thereafter, case analysis focusing on quality scrutiny on syntactic complexity will be in rationale. In 3.4 and 3.5, cases from corpus samples and taxonomy in manual coding will be showcased.

3.1 Academic English Writing contexts for EFL learners in X University

Matching with the broad definition of “academic English”, in the Mainland of China, “college English” instead is often called and has a certain feature of academic English. Similarly, college English teaching shared some common characteristics with TEAP. In X University since the teaching reform in 2015, undergraduates are required to get 10 credits in college English-related courses before they are to be granted Certification of Graduation. Nearly all of the freshmen will receive placement test after entering it to be regrouped and selected in various college English classes as their learning starting points. Vague percentage of each bands and levels among freshmen in every school year would be: 5% of lower level of placement test performers will start from college English course level one and 5% of highest proficiency performers will start from level four or directly skip from compulsory college English courses and they are supposed to choose selective English courses. Every college English course, no matter it is a reading/writing module or a listening/speaking module, will bear two credits. Teacher-student ratio for each class will be between 1:20 and 1:50; for each class, teachers will spend 90 minutes to carry out face to face instruction for 16 weeks in a semester. Therefore, placement test virtually decides students’ learning starting point and guides them to follow progressive learning routes. The specific arrangement, say, whether the focus will be more reading/writing credits or more listening/speaking ones, is determined and scheduled by learners themselves. As long as they pass the final achievement test for their selected college English courses, they could get the credits of those courses and continue sequent courses selection and learning. Most of the students will have got enough credits of college-English courses during their first two years of tertiary learning.

3.2 Participants

392 freshmen learners attended the research and provided their timed academic depicting texts to be corpus data. They have distinct disciplinary backgrounds with the science and engineering as the dominant majors. Before attending this study, they have been sorted in class levels one (lower level), two (intermediate level) and three (advanced level) as their tertiary English learning starting points, according to and based on their placement test scores. Before collection, all the participating students were informed of the research project and they signed consent files to agree to their written texts to be used as research data.

My other three colleagues also attended the research. The writing task assignment and texts collection were conducted in September 2016. Based on the initial 392 texts collection, DHUAWE corpus was come into being with 121 texts in lower level one; 139 texts in intermediate level two; and 132 texts in advanced level three.

The research team adjusted assessment criteria from LELTS TASK 1 writing band descriptors (public version) and oriented corpus texts level three into .6 of IELTS scores (marked band 3 in this study), corpus texts level two into .5 of IELTS scores (band 2), and corpus texts sub level one into .4 of IELTS scores (band 1). The tailored ranking descriptors and assessment standards can be found in Appendix C. The research team invited two IELTS raters to evaluate 60 random sample texts, with 20 texts for each level in the corpus in June 2018. The interrater reliability for the samples was .86 on the Cohen's Kappa test. Their rating has facilitated to narrow down the research scopes into case analysis in quality scrutiny of corpus samples.

3.3 Rational of Case Analysis to Trace Better Quality in Syntactic Complexity

Initial quantitative analysis on syntactic complexity of DHUAWE corpus data failed to support similar findings to Lei’s research in 2017, which contrasted Chinese postgraduates’ English proficiency with that of PhD candidates. DHUAWE data could not give support to the conclusion of Clercq and Housen either, which adopted a cross-linguistic perspective between native English learners and French and German learners. The quantitative results of DHUAWE data can be consulted in Appendix A to get a glimpse of its messiness. No significant statistical difference in syntactic complexity can be inferred among three sublevels in DHUAWE corpus.

Yet, qualitatively speaking, texts in DHUAWE corpus indeed exist distinction in “their quality”. Higher level of literacy including more syntactically complex structures has been spotted among advanced level or band of texts. My research on syntactic complexity performance in EFL learners’ academic depicting writing tasks will unfold mainly qualitatively after initial attempt of quantitative analysis on complexity using analyzer L2SCA (Ai & Lu) and Kruskal-Wallis statistical testing. Since the initial quantitative analysis failed to meet my research objective, qualitative analysis on three selected cases of sample texts from DHUAWE corpus has been conducted instead. Three sample texts from the corpus were provided by pre-determined levels of freshmen participants studying in X University which located in Shanghai, PRC. Research team assigned an IELTS depicting writing task among their classes and then collected participants’ texts as corpus data. (writing task is Appendix B). The consideration to select IELTS depicting writing task is that the majority of EFL learners in X University have no earlier experience to write academic description till the year 2015. However, academic depiction is of vital importance for EFL learners of X University; for in their academic learning days and future careers, they will need to be familiar with and frequently use data description, comparison and reporting. Though they have been grouped according to their placement test scores (scores below 40 grouped into sub Level one; scores between 41 to 60 grouped into sub Level two; and scores between 61 to 84 grouped into sub Level three), their academic writing was not included in the placement test. This implies that their academic depicting ability may not have been tested and known before this study.

3.4 Cases from Corpus Samples

With previous preparations and endeavors, finally three sample texts were chosen as the case analysis of their quality in syntactic complexity. They represent typical data from the corpus, with each coming from corpus sub levels one, two and three. These three texts have got the same score from two raters according to the tailored ranking descriptors focusing on complexity of language use.

Since the writing task is a timed one, some of the texts have not been finished and their word count is variant. If one student could create more words to finish the task during the required time limit, this can be a proof, partially, of his or her comparatively good writing proficiency. Like errors in the texts, word count is not the primary research focus. Instead, how learners use English to respond to academic depicting writing task and how complicated their depicting language in their texts will be, are becoming the major concerns of this study.

3.5 Taxonomy on Complexity and Manual Coding

For the research’s sake, the team designed coding taxonomy. Table 1 has more detailed displays on specific academic structures concerning syntactic complexity and their codes labelling in the corpus.

Table 1: Specific syntactic complexity elaboration and their coding in DHUAWE

|  |  |  |  |
| --- | --- | --- | --- |
| Academic Features to be researched |  | definitions | Syntactic elaboration |
| <SC> | <SCV> | the range of syntactic structures (Lu) | “there be” structure <SCVtb> |
| objective clauses <SCVoc> |
| “with + noun” as a prepositional structure <SCVws> |
| “it” as a formal subject in a T-unit <SCVit> |
| “as subjective + predictive” structure <SCVas> |
| adverbial clauses functioning as a result or method <SCVadC> |
| <SCS> | the extent to which the syntactic structures are complex (Lu) | mean length of T-unit² to show overall complexity <SCSTu> |
| coordination complexity¹ <SCScc> |
| subordination complexsity¹ <SCSsc> |
| mean length of noun phrase and verb phrase to show phrasal complexity² <SCSNP> <SCSVP> |

Notes: ¹ adopted from Ai & Lu, and Lei; ² adopted from Bulté and Housen (“Conceptualizing”); <SC> stands for syntactic complexity; <SCV> stands for variety of syntactic structure; <SCS> stands for sophistication of syntactic.

4. Results and Discussions

This section will first report syntactic complexity performance in the corpus sample texts, based on qualitative analysis on how complicated in syntax of especially high level (Band 3) samples. Then the discussion on better quality of academic graph depicting in its typical features in syntax, discourse and style will be followed.

4.1 Syntactic Complexity in Samples of Three Bands

Two IELTS raters have virtually double-ranked 60 texts samples. Their scores with placement testing earlier have helped me to grade learners’ texts more precisely and to enable to narrow down the scope on three sample texts to carry out the case study on syntactic complexity. The sample texts for the case study are labelled “Text no. 55-Band 1” representing texts of low level, “Text no. 38-Band 2” representing texts of intermediate level and “Text no. 22-Band 3” representing texts of advance level.

Among the three sample texts, “Text no. 22-Band 3” has the most word count. Manual coding on complexity performance reveals that “Text no. 22-Bands 3” is outstanding from the other two samples, in the aspect that it has the biggest range and the greatest extent of syntactic complex structures, clauses and phrases. Within its 240 words, this sample text contains four objective clauses and two relative clauses which make the sentences longer and at the same time meaning expression more complicated. Besides that, “Text no. 22-Band 3” has flexible usages of “as structure”, “there be” structure and “it” as a formal subject (coding in the corpus as <SCVas>, <SCVtb>and <SCVit> respectively). The following example and concordance line a) will showcase “as structure” used in “Text no. 22-Band 3”. This sentence is the beginning sentence of the whole text, which guides readers to focus on the writing task immediately. Rather than a round-about way, which is thought to be a typical Chinese way of thinking and communication, this Chinese EFL novice writer has started the depiction more directly and more like western thinking product.

1. As is vividly decipted [depicted] in the chart, we can …

The example and concordance line b) from “Text no. 22-Band 3” will elucidate “it” used as a formal subject. This sentence not only functions the description and contrast of the graph information but also holds the student writer’s epistemological decoding of the bar chart (academic depicting writing task).

1. … it's obvious that the number of men and women in part-time education is far more than that in full-time.

Based on evaluation of syntactic complexity, the raters and the teacher researchers have agreed that Band 3 sample has obvious differential syntactic features compared with Band 1 and 2 samples.

It is surprisingly noted that “Text no. 55-Band 1” contains no subordinate clauses; and “Text no. 38-Band 2” contains no coordinate clauses. Neither of them has “there be” structure, which according to my learning experience, has been within acquisition in junior middle education. College students are believed to acquire most of the syntactic structures, clauses and grammatical points before their tertiary learnings, however, their real writing performance in academic graph depicting task did not show this presupposed distribution and frequency. “There be” structure is considered simple yet quite useful and applicable in description of column diagrams. The reason why lower level learners can and should use it but actually fail to use “there be” structure possibly needs further metacognitive research on learners and more reflective research on English teaching. The mastery and appropriate usage of “there be” structure perhaps needs some pedagogical instructions in college English learning phase.

In short, there is barely obvious differences between sample texts “Text no. 55-Band 1” and “Text no. 38-Band 2”. Even Band 2 text is shorter in text length and contained fewer complex syntactic structures than Band 1 text, “Text no. 22-Band 3”, instead, has remarkably better quality in the sense of syntactic complexity.

4.2 Syntactic Features of Academic Depiction Genre

“Text no. 22-Band 3” contains more academic features of EFL Chinese learners to be reported and discussed; and analysis in this section may reveal more details, if complemented with 4.1.

The examples and concordance lines c) and d) will report “there be” structure used in “Text no. 22-Band 3”. Both examples could be regarded as formula phrasal and syntactic expressions and used by objective clauses followed. They could be considered as “variant and periphery” usage of “there be” structure; after all, the basic and typical function of “there be” structure is to objectively describe entities in positions and directions such as in the sentence of “there is a bus station in front of the house” and is to report factual happenings such as in the sentence of “there were 1,000 thousands of males to receive further education as a part-time activity in the UK in 1970s”. It’s a pity that the sample text no. 22-Band 3 did not contain “there be” structures functioning typically and basically, which should have been acquired earlier than variant and periphery usage of “there be”. The use of “there be” structure as demonstrated in c) and d) is believed to be the result from student writer’s earlier practice and from his or her former teacher’s pedagogical intervention.

1. … There is no denying that part-time education is a good choice for those …
2. … There is no doubt that it profits from good changes in living standard….

It is hard to conclude whether examples like c) and d) may prove the mastery of “there be” structure in the long run among EFL Chinese learners. For this learner seems to neglect basic function of “there be” structure in academic depicting genre and examples c) and d) instead are believed to be only outcomes of short-term essay writing practice before.

In addition to the sentence example of “there be” structure, there is another one which needs to be noted in “Text no. 22-Band 3”, shown in the concordance line e). This is a syntactic structure of objective clause with the absence of “that” between “hope” and “more and more…”. But the noteworthy point in the example e) is the inserted segment “if possible”. This inserting makes the meaning expression more academic and authentic and it makes this student writer more proficient and experienced in English writing. The demerit would possibly be that the function of the example e) is more expressing wish and attitude rather than depicting and decoding the graph. This is partially due to that novice writers have no familiarity to targeted academic depicting genre. From casual interview with them, it is known that the participating students were mostly trained to write narrations and argumentative in their mother tongue and English letters in their earlier English writing tests.

1. … And I hope, if possible, more and more people can get full-time education in near future.

The example f) is composed of a complex sentence with conditional subordination structure starting with “if”. This sentence is also the use of subjunctive mood. Similar to the example e), the meaning expression in f) can reflect the student writer’s sophisticate and worldly English proficiency, however, f) is more like one’s opinion and stance, though it is in the form of conditional clause and subordination.

1. …If more and more people try to enrich their knowledge, the country would have more talents…
2. As far as I am concerned, it's a good trendency [tendency] and we should encourage it.

The same impression that the student writers are more familiar to academic genre of argumentation can also result from the example g). The structure of “as far as I am concerned” is a typical expression to introduce one’s own viewpoint and the booster modality verb “should” in g) strengthens the certainty of the viewpoint. In addition to the explanation of students’ unawareness of various academic genres and unfamiliarity to depicting linguistic features, the example g) is also believed to be the outcome of test-oriented training and washback. According to my knowledge, “as far as one be concerned” once was regarded as a shining and point-bearing expression in Certificate of English Test (CET) band 6 in China. This syntactic structure has been recommended to learners as a light spot in formulaic sample essays.

Briefly speaking, the evaluations on examples e), f) and g), like non-typical use of “there-be” structures in examples c) and d), may together reveal that the novice writers may not accustomed to academic depiction, both to this subgenre awareness and to its prototype of linguistic features. Learners seem more familiarized with academic essays and argumentation than graph depicting writing. As is known to all, academic essays require the use of syntactic structures functioning as expressing one’s attitudes and stance, with plenty of logical critique and evidencing. Unlike argumentation, the genre of academic depicting writing requires the syntax and expressions with functions of describing, reporting and comparing the figures or trends. **In academic depicting, it is not the primary response to analyze possible reasons behind the data nor provide explanation and viewpoint on the writing topic.** The primary and typical syntax in academic depicting should be syntactic structures of objective describing and reporting, multiple numbers in comparing and contrasting and the like. The objective describing, reporting and comparing are the essentials and primary concerns in academic depicting genre. The comparatively high level of learners’ poor performance in academic depicting and their produce of more essay-like syntactic structures and phrases, rather, reveal their lack of awareness and mastery of essentials in academic depicting genre. This result has been evidenced in the above examples of c), d), e), f) and g), which, instead, are more typical syntax in academic essays and argumentative. The finding seems to provide support for discussions on “graph familiarity” from respective research by Yu et al. and Yang, and could also link back to Yang’s “graph comprehension, interpretation and translation strategies” (“Modeling”). In this paper, “linguistic and cognitive responses” is supposed to replace “graph interpretation” to emphasize the linguistic requirement of academic depicting writing task. What is more, “topical knowledge, background schemata, genre-specific awareness and the like are supposed to be woven into the concepts of “graph familiarity”.

EFL and L2 learners’ as well as intending IETLS candidates’ lack of graph familiarity and poor responses to it with non-typical depicting lexis and syntax may leave great space for future IELTS writing tasks designing and L2/EFL writing pedagogical implication.

4.3 Other Features of Academic Depicting Genre

The previous sections elucidate mostly on syntactic features of academic depiction examined in text sample cases. This section intends to analyze further and broader, namely, some discursive and stylistic features of academic depicting genre.

Beyond specific genre requirement on language proficiency, any good written text can be evaluated according to two criteria. One is that the whole text weaves around one central idea, no matter it is to tell a story, to describe a scene, to interpret a process, or to prove a point of view. The other standard is that the whole text must be coherent and fluent in expressing. A good academic depicting also follows these two standards.

One can find that “Text no. 22-Band 3” has a better quality according to the criteria. The discourse markers in this sample text “first…then…in addition…all in all” ensure that the whole text has logical progression and multi-layered meaning expressions, though this format is more essay-like. These markers make the whole text coherent and united too. As the example a) reveals in 4.1, the starting sentence in the sample text is quite direct and western-like, facing the writing task directly. The rest paragraphs in the sample text unfold the student writer’s decoding of the graph, or, as Yang (“Modeling”) put it, graph comprehension and interpretation, which is to the point of graph depicting requirement. The depicting of graph information needs to be logic and orderly. Tightly matching with the principal messages conveyed in those curves, trends, charts and so on, the academic graph writing is supposed to have a “sandwich” structure, that is, introduction-body-conclusion framework. The body part could follow a certain logic. For instance, variable X first and variable Y next. Or subject-by-subject pattern in a comparative text is another smart discursive choice in the response of academic depicting.

Though academic graph writing could borrow the discourses of essay writing and exposition writing to achieve conciseness and fluency, as discussed in 4.2, syntactic/linguistic features of academic depicting are more decisive to maintain the genre characteristics. Another point which is not the decisive but needs mentioning is the stylistic features. Somewhat like side effects, learners’ texts in the corpus have shown a few structures of mixture of spoken and written styles. The lower levels of language proficiency are, the more chances and frequency of mis-styles use in the corpus texts will have. Some novice learners wrote “let us see the graph” as if they were starting a presentation; some others ended their writing with “that is all; thank you” to respond to academic writing tasks too casually and informally as if they are addressing a speech.

These stylistic and formality features in genre and discourse analysis may also have implication on future L2/EFL teaching; though not necessarily in a clear-cut way, it will be of great value to allow learners to be exposed to and get familiar to variety of academic genres, discourses, styles and so on.

5. Pedagogical Implication and Closing Comments

Based on the EAP contexts in X University, the article could be regarded as students’ corpus-based research report. A less-researched academic graph writing task and the sequent conducts have been chosen, designed, implemented and explored. The reports of corpus sample texts could answer three research questions and also support the following three research findings. They are: 1) syntactic complexity has strong relation to learners’ general language proficiency. The more advanced levels of learners are, the more complicated syntax they will possibly show; 2) Though syntactic complexity may be progressive with the levels and developments of learners, learners performed poorly in the use of typical academic graph depicting language in general. They either produced insufficient amount of essential structures or tended to produce more essay-like and argumentative-like styles and genres; 3) Learners are universally lacking of knowledge and awareness of various academic writing types and genres and they may have no clear knowledge to distinguish the written style from the spoken one.

The study has pointed out that EFL learners in X University are universally weak in familiarity of academic depicting genre. They have no clear idea on how to write an expected and typical depicting text. As Hyland (153) put it, “learning to write involves learning to use the language”. Therefore, this study may have pedagogical implication for teacher researchers and practitioners in the following several aspects. First, English writing teachers could create situations and opportunities for learners to be exposed to diversified academic genres, and writing task types, no matter they are general social and cultural or discipline-specific topics. Second, writing teachers are encouraged to cooperate with discipline teachers to study together linguistic features of disciplines, including its syntax complexity and unique characteristics. Third, writing teachers could be developed into more EAP-oriented or ESP-oriented scholars, or into testing specialists. The specific linguistic features of various genres and task types need to be researched further. Similarly, various EAP and ESP teaching materials, task designing, task assessing and so on need researching too. In designing writing tasks, consideration could be taken into designing more practical and needs-driven ones, balancing social, cultural and discipline connotations. In implementing writing tasks, besides testing-like environment and corpus compilation, other possibility like process-guiding and portfolio storage might be good choices. All in all, teachers will guide learners to get familiar to those various yet practical writing genres and scaffold their writing practice to create written products with typical and matching syntactic and discourse representations. In the long run, via writing teaching and practice, the goal of mastery of linguistic literacy on a certain genre could be achieved and learners’ awareness of different genres and their essential features could be possibly raised.

This research has limitations too. Due to lack of energy and time, only a few sample texts from DHUAWE corpus have been discussed qualitatively. They have been analyzed as cases which answered the research questions and provided support to the research findings, however, the whole picture could be outlined and become more valuable if more processive data could be included in the future. Similarly, the research focus was mainly on syntactic complexity. Discourse and stylistic features had been involved as minor foci in this article. Obviously, there exist other perspectives besides fluency, complexity and writing task design from the total framework of learners’ language performance. Learners’ texts as research data could be enriched in the future in two aspects. The first direction is to add pre-writing and post-writing surveys on their familiarity (or not) of that genre and their self-checking on mastery (or not) of that genre writing. In this case, writing pedagogy and teaching practice can be more guaranteed in its validity and effectiveness. The second direction is to allow cognitive linguistics to play a role in L2 and EFL writing researching and teaching. This will be helpful to interpret deep-rooted conceptual and cultural differences and guide possible adjustments by cognitive strategies use in writing.

Acknowledgements

Sincere thanks go to my colleagues who provided their students’ writing texts to compile the corpus and offered their research ideas as well. Great gratitude to two IELTS raters and to Professor Julio Gimenez and others who come up with constructive research guidance and suggestions. I would also like to express my thanks to the anonymous reviewers of this paper.

Works Cited

Ai, Haiyang, and Lu Xiaofei. “A corpus-based comparison of syntactic complexity in NNS and NS university students’ writing.” *Automatic treatment and analysis of learner corpus data*, ed. by Díaz-Negrillo, Ana, Nicolas Ballier & Paul Thompson, Amsterdam: John Benjamins. 2013, pp. 249-264.

Biber, Douglas, Bethany Gray, and Kornwipa Poonpon. “Pay Attention to the Phrasal Structures: Going Beyond T-Units—A Response to Weiwei Yang.” *TESOL Quarterly*, vol. 47, no. 1, 2013, pp. 192-201.

Bulté, Bram, and Alex Housen. “Defining and operationalising L2 complexity.” *Dimensions of L2 performance and proficiency: Complexity, accuracy and fluency in SLA*, ed. by Alex Housen, Folkert Kuiken, and Ineke Vedder, Philadelphia/Amsterdam: John Benjamins, 2012, pp. 21-46.

Bulté, Bram, and Alex Housen. “Conceptualizing and measuring short-term changes in L2 writing complexity.” *Journal of Second Language Writing*, vol. 26, 2014, pp. 42-65.

De Clercq, Bastien, and Alex Housen. “A Cross-Linguistic Perspective on Syntactic Complexity in L2 Development: Syntactic Elaboration and Diversity.” *The Modern Language Journal*, vol. 101, no. 2, 2017, pp. 315–334.

Han, Zhaohong, and Wai Man Lew. “Acquisitional complexity: What defies complete acquisition in second language acquisition.” *Linguistic complexity: Second language acquisition, indigenization, contact*, ed. by Bernd Kortmann and Benedikt Szmrecsanyi, Berlin: De Gruyter Mouton. 2012, pp. 192-217.

Hyland, Ken. “Genre Pedagogy: Language, Literacy and L2 Writing Instruction.” *Journal of Second Language Writing*, vol. 16, 2007, pp. 148-164.

雷蕾. “中国英语学习者学术写作句法复杂度研究.” 《解放军外国语学院学报》，2017年第40卷第5期，第1至8页。

[Lei, Lei. “Syntactic Complexity of Chinese Learners’ EAP Writing.” *Journal of PLA University of Foreign Languages*, vol. 40, no. 5, 2017, pp. 1-8.]

Lu, Xiaofei. “Automated measurement of syntactic complexity in corpus-based L2 writing research and implications for writing assessment.” *Language Testing*, vol. 34, no. 4, 2017, pp. 493-511.

Norris, John M., and Lourdes Ortega. “Towards an organic approach to investigating CAF in instructed SLA: The case of complexity.” *Applied Linguistics*, vol. 30, 2009, pp. 555–578.

O'Loughlin, Kieran, and Gillian Wigglesworth. “Task design in IELTS academic writing task 1: The effect of quantity and manner of presentation of information on candidate writing [online].” *International English Language Testing System (IELTS): Research Reports 2003*: Volume 4, ed. by Robyn Tulloh, Canberra: IDP: IELTS Australia, 2003: [89]-130. Availability: < https://search.informit.com.au/documentSummary;dn=908957733867582;res=IELHSS> ISBN: 0864030452. [cited 30 Jan 19].

Ortega, Lourdes. “Syntactic complexity measures and their relationship to L2 proficiency: A research synthesis of college-level L2 writing.” *Applied Linguistics*, vol. 24, no.4, 2003, pp. 492-518.

Wu, Xue, and Lei Lei. “A Meta-analysis of L2 Writing Proficiency and Syntactic Complexity.” Modern Foreign Languages (Bimonthly), vol. 41, no. 4, 2018, pp. 481-492.

Yang, Hui-Chun.“Modeling the relationships between test-taking strategies and test performance on a graph-writing task: Implications for EAP.” *Journal of English for Specific Purposes*, vol. 31, no. 3, 2012, pp. 174-187.

Yu, Guoxing, Pauline Rea-Dickins, and Kiely Richard. “The cognitive processes of taking IELTS academic writing task 1 [online].” 2nd. *IELTS Research Reports* Volume 11, 2012, 2nd edition. 2nd. Melbourne: IDP: IELTS Australia and British Council, 2012: pp. 1-77. Availability: <https://search.informit.com.au/documentSummary;dn=160055667333535;res=IELHSS> ISBN: 9780987237828. [cited 30 Jan 19].

张莉. “词块理论框架下东华大学生学术英语写作流利度的分析.”《大学英语》（学术版），2017年第2期，第20-27页。

[Zhang, Li. “Theory of Lexical Chunks and Fluency in College Students’ Academic Writing.” *College English (Academic Edition)*, vol. 2, 2017, pp. 20-27.]

Zhang, Li. “A Corpus-based Analysis in Fluency of EFL Academic English Writing: Examples of Concerned and as Far as I am Concerned.” *Proceedings of the 11th international Symposium on Teaching English at Tertiary Level*, 2017, pp. 173-180.

张莉. “也谈‘分级’概念在大学英语读写教学和评估中的运用：从雅思图表描述写作中诊断与反思.”《东北亚外语论坛》，2018年10月第3期，第28-33页。

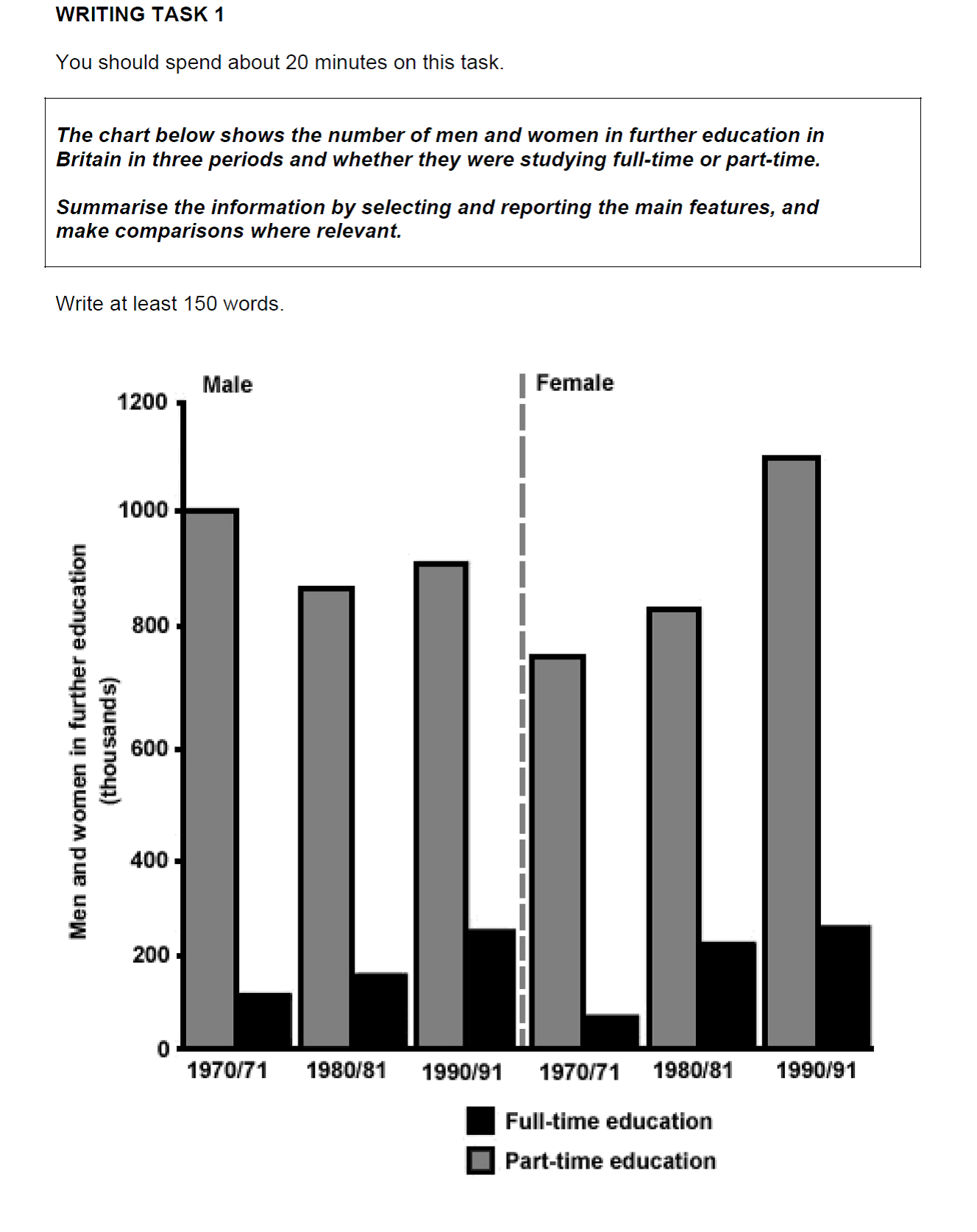
[Zhang, Li. “Revisiting ‘Grading’ in College English Reading into Writing Teaching and Assessment: A Diagnostic Reflection from an IELTS Graph Depiction.” *Northeast Asia Forum on Foreign Languages*, vol. 9, no. 5, 2018, pp. 28-33.]

Appendix A:

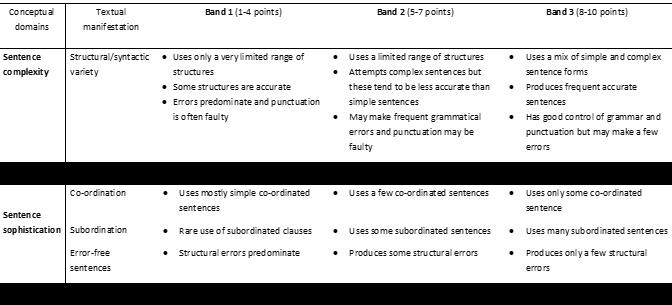
Results of L2SCA analyzer on syntactic complexity of DHUAWE data

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| levels/texts number | Total words | Mean length of sentences | mean length of T-units | mean length of clauses | numbers of clauses | Numbers of clauses in T-units | numbers of T-units in sentences | Numbers of coordinate phrases in T-units | Numbers of coordinate phrase in clauses | Numbers of compound nouns in T-units | Numbers of compound nouns in clauses |
| Lower level/121 | 15，797 | 14.96 | 13.61 | 8.36 | 0.33 | 0.54 | 1.03 | 0.4 | 0.25 | 1.84 | 1.13 |
| Intermediate level/139 | 19，510 | 15.88 | 14.56 | 9.17 | 0.34 | 0.54 | 1.09 | 0.37 | 0.24 | 2.05 | 1.3 |
| Advanced level/132 | 22，061 | 17.97 | 16.3 | 9.26 | 0.41 | 0.73 | 1.1 | 0.4 | 0.22 | 2.32 | 1.32 |

Appendix B: IELTS-type writing task



Appendix C: Tailored ranking descriptors and assessment standards



About the author

Li Zhang, a lecturer at Donghua University, where she teaches EAP writing and College English reading and writing. Her research interests include academic English, task-based teaching in particular English reading into writing, and intercultural communication between English and Chinese. A recent publication (Zhang, Li & Susu Wu, 2017) is an ESP textbook entitled *Textile English* by People’s Education Press.