

AN AUTHENTIC ASSESSMENT ON SENTENCE COMPLEXITY TOWARD INDONESIAN EFL STUDENT'S WRITING PRODUCTION

Made Wahyu Mahendra

Universitas Negeri Malang, East Java
mahendrawahyu27@yahoo.com

Abstract:

Linguistically, the more complex clause a sentence implements, the more complex the grammar it embed. A simple clause, as opposing the complex clause, consists of a subject and a verb with optional object or complement. However, Biber et.al. (2011) has proved that complexity of a clause attached in a sentence fails to indicate the complexity of a sentence in writing composition. Furthermore, they indicated the stage of the acquisition of complexity features of writing, including that of in L2 of English. This present study aims at investigating how the frequency of complex sentence produced by Ganesha University of Education students different from that of by professional academic writer, to assess students' writing ability. The complexity features of writing comprise: 1) finite dependent clause types; 2) non-finite dependent clause; and 3) dependent phrase types (non-clausal). Theoretically, the implication of the study aims to benefit the development of teaching writing through authentic assessment process. Providing assessment with diagnostic feedback on areas of needed improvement through authentic assessment in English language teaching has become a solution due to its significance for language learner (Brown & Abeyvikrama, 2010: 254). Corpus-based analysis is conducted allowing great number of data to be analyzed to generate more reliable generalization (Baker, 2010). The corpus data and the frequency of sentence complexity as represented by selected features of (Biber et al., 2011), are annotated using CLAWS part-of-

speech tagger hosted by Ucrel, and are calculated by Ant.Conc 3.2.4 corpus software. The findings projects surprisingly occurrence in which undergraduate students utilizes clausal sentence rather than phrasal sentences. It becomes indication that the students are in the early developmental stage of complexity in writing.

Keywords: *sentence complexity, authentic assessment, EFL learners' writing*

Students' mastery in writing is commonly overviewed from their competence in constructing sentences. In relation to L2 writing, the common approach implemented by teachers is grammatical construction or words-by-words approach. Then, the result of students' writing is assessed on the fulfilment of several criteria such as grammar, coherency, and cohesiveness indicating constructing sentences capability. In consequence, mastering writing competency is achieved when students' sentence constructions satisfy teachers' expectation.

However, aim of writing will change this view as purpose and genre of writing determine students' performance on writing (O'Malley and Pierce, 1996). More importantly, components of the assessment rely on two criteria viz. the nature of the task and the assessment criteria. Moreover, for university level students, the aim is to develop students' ability to construct academic written works fitting with their competency level, and complex sentence construction becomes the showcase of advance academic writing (Biber, et al., 2011). Further, Biber et al. (2011) indicates that sentence complexity points out students' ability to produce structures which are highly specialised, and is derived from careful planning, revising, editing that brings them to advance level of writing.

Complex sentence itself is viewed from several definitions. Nelson (1993) defines complex sentence structure as multiple embedding, referential and logical connections across sentence boundaries. This view is supported by Ortega (2003) who views sentence complexity as comprehending complex sentence will grow as individual be able to expand the length of

an utterance by adding variety of non-clausal structures through phrase elaboration strategies. Moreover, Lu (2011) has proven that the ability to produce complex sentence also reflects learners' proficiency levels. Therefore, comprehending complex sentences can also be said as a complex process which involves the development of one's knowledge about syntactic rules (Grossman et al., 2002).

Nevertheless, complex sentence construction has been commonly related with T-Units construction which indicates average length of structural units or the extent of clausal subordination, assuming that longer units and more subordination reflect greater complexity, while basically these clausal extension are complexity features for conversation rather than for academic writing (Biber et al., 2011; see also Biber 1985, 1986, 1988).

A number of research have already been conducted to investigate the ability of students to produce complex sentence. Kim (2014) investigated how university students' ability to produce complex sentence can be analysed by using automatic indices of linguistic complexity. His research took 234 corpus of essays. The key of his study was computational tools and focus on text length, lexical complexity, and syntactic complexity. His research reveals that proficient writers produced longer texts, used more diverse vocabulary, and showed the ability to write more words per sentence and more complex nominalisation.

Another research was conducted by Wood and Struc (2013). Their research focuses on how corpus based analysis was used to investigate complexity, fluency, sentence variety, and sentence development. It is proven that complexity and sentence variety were limited when students write in genre. This condition also occur in Gordon et al. (2004) research who have proven that students' ability in complex sentence construction is affected by noun phrase type.

WHY AUTHENTIC ASSESSMENT?

The use of authentic assessment emerged since it is believed that

test is product oriented. In the case of writing, it needs complex process to be mastered, and that process needs to be controlled and assessed. Authentic assessment itself is considered as a process oriented evaluation for communicative competence, cognitive ability, and affective (Finch, 2002 ; O'Malley & Pierce, 1996). It is frequent that authentic assessment related to real world situation. In addition, authentic assessment also provides assessment with diagnostic feedback on areas of needed improvement (Brown & Abeyvikrama, 2010:123). From learners' side, the use of authentic assessment will be used as a reflection and as a stepping stone to manage their learning (William & Burden, 1997). They will be able to revise their error, and focus to their aims of learning.

Considering the criterions of authentic assessment, corpus analysis provides learners with the majority of criteria for authentic assessment. Some of the characteristics seen from corpus based analysis are (1) it requires students to perform, create, and demonstrate their competencies, (2) it provides multiple sources of data, (3) it is process oriented as well as products, (4) use real – world context or simulation, (5) it provides information about students' strength and weaknesses, (6) The assessment is integrated with the students activity (Brown & Abeyvikrama, 2010: 123 ; Wiggins, 1993; Gulikers et al., 2004, Herrington & Herrington, 2006).

From preceding explanations, the researcher intends to investigate how the frequency of complex sentence produced by Ganesha University of Education students different from that of by professional academic writer, to assess students' writing ability. This investigation is derived from the fact that students' high proficiency level does not always indicate the acquisition of advance academic writing competence. Also, the relation between corpus-based study and authentic assessment is hardly seen from previous research. Corpus-based approach enable researcher to quantify linguistics patterns, providing more solid conclusions, confirming or refuting hypothesis about language use, and raise new questions and theories about language (Baker, 2010). Large corpora is analysed in this research allowing us to discover any

unusual and unique case of language phenomena.

This research is limited to the complex sentence construction in relation to academic writing, represented by selected syntactic function of Biber, et al. (2011). It is hoped that this research will be significant for the development of language assessment, and as reflection for university students who learn English as a foreign language.

METHOD

Corpus Analysis Software

The present research is a corpus-based research which aim to assess language production of EFL learner. This research takes advantage of two programs to annotate the data, and analyze the linguistics phenomena. To allow data annotation, CLAWS4 (Constituent Likelihood Automatic Word-tagging System) is utilized and operated online. It is developed by UCREL (University Centre for Computer Corpus Research on Language) at Lancaster University. CLAWS4 is the successor of CLAWS1, this system has five major sections: (1) segmentation of text into word and sentence units; (2) initial part-of-speech assignment; (3) rule-driven contextual part-of-speech assignment; (4) probabilistic tag disambiguation; and (5) output in intermediate form (Leech, et.al., 1994). CLAWS4 has been written by Roger Garside, with CLAWS adjunct software written by Michael Bryant. Meanwhile, to generate data concordance, Ant.Conc 3.2.4v (Windows) 2011 is operated, the latest version of Ant.Conc software. It also facilitates with the frequency hits of occurrence. This free concordance software is developed and published by Laurence Anthony (Wiechmann & Fuhs, 2006) and provides several features such as Concordance, Concordance Plot, File View, Clusters, Collocates, Word List, Keyword List, N-grams, and many more.

The process of obtaining and analyzing the data corpus follows steps of previous corpus research by (Shitadevi&Yannuar, 2014). However, minor addition were implemented such as tagging the data with part-of-speech

tagger prior to utilize Ant.Conc 3.2.4v, and sorting the concordance data after the searching process. The sorted concordance were selected manually by the researcher to avoid unrepresentative occurrence. Keywords to be searched are the syntactic function representing three grammatical types by Biber et al. (2011).

Data are taken from undergraduate essay writing of English Education Department, Ganesha University of Education students which were submitted to Essay Writing Class in year 2014/2015 even semester, and research articles in English Education, English Language and Literature written by Indonesian writer taken from various journal.

FINDINGS AND DISCUSSION

There are 52 essays and 52 articles analyzed using Ant.Conc 3.2.4v. The total number of word count of each genre is the same, containing 28.587 words. The mean length of the each text is 550 words.

There are three types of grammatical types and each of it consists of three classifications of syntactic function adopted from previous research by Biber et al., (2011). Grammatical types used in this research are finite dependent clause, nonfinite dependent clause, and dependent phrase or non-clausal. Each type comprises of same syntactic functions: adverbial, complement, and noun modifier, except for non-clausal the syntactic function comprises of adverbial and noun modifier.

Table1. Frequency of Complex Sentence in Undergraduate Essays and Professional Academic Articles

GRAMMATICAL TYPE	SYNTATIC FUNCTION	Undergraduate Essays	Professional Academic Articles
Finite Dependent Clause	Adverbial Clause –	231	44
	Because Clause		
	Complement Clause –	127	113
	noun+ <i>THAT</i> clause		

	Noun Modifier	232	111
	Clause – WH Relative Clause		
	TOTAL	590	268
Nonfinite Dependent Clause	To Adverbial Clause	6	17
	Complement Clause – Verb+ <i>-ing</i> clause	14	26
	Nonfinite Relative Clause	4	128
	TOTAL	18	154
Dependent Phrase (Nonclausal)	Preposition as Adverbial	416	650
	Noun Modifier	172	805
	TOTAL	588	1455

Finite dependent clause are represented by selected syntactic functions namely *because-clause*, *That-clause* controlled by a noun, and WH relative clause. In this first type, it shows surprising result of great number of clausal sentences produced by undergraduate students, for making as much as 590 tokens, compared to professional academic article which resulting only 268 tokens, about more than two times lower. From the three syntactic functions in undergraduate essay, noun modifier in a form of WH-relative clause shows the highest occurrence, as high as 232 tokens. WH-relative clause is dominated by connector *when*, *how*, *why*, *who*, and insignificant number of *where* and *whom* are also involved. On the other hand, the highest occurrence in professional academic article is dominated by complement clause represented by *that-clause* controlled by a noun, for making as many as 113 tokens. The second highest occurrence in undergraduate essay is the adverbial clause, *because-clause*, with a narrow margin of 1 token. The same occurrence also takes place in professional academic articles' second place, noun modifier clause, which has slight difference by a margin of 2 tokens only. Meanwhile, *because-clause* is the second highest occurrence in undergraduate essay, it appears the least in professional academic articles, for making only 44 tokens. The least occurrence in undergraduate clause is complement clause

of *that*-clause controlled by a noun, as many as 127 tokens.

The second grammatical type, nonfinite dependent clause, appears the least frequent among the other three types. In undergraduate essays, surprisingly, nonfinite dependent clause only comprises of 18 tokens, while in professional academic articles the frequency is 154 tokens. Selected syntactic functions are *to*-complement clause showing purpose, complement clause of *-ing* clause controlled by a verb, and noun modifier of past participle clauses. The highest occurrence in undergraduate essays is 14 tokens of *-ing* clause controlled by a verb. Meanwhile, the highest occurrence in professional academic article is 128 tokens of past participle clause. Looking at the gap number between undergraduate essays and professional academic articles occurrence, and the gap among other grammatical functions, it can be determined that the occurrences of nonfinite dependent clause in undergraduate essays are insignificant.

The third type also shows unexpected result, in undergraduate essays the number of non-clausal shows very high frequency, as many as 588 tokens which is 2 tokens less than finite dependent clause. However, this occurrence is considerably different from that of professional academic writer in which number of occurrence shows the most frequent rate, as many as 1455 tokens. It epitomizes great significance of different portion in each grammatical function embodied in an academic text. Non-phrasal clause is represented by the occurrence of *in*- preposition as adverbials, and *of*-prepositional phrase as noun modifier. In undergraduate essays, the highest number of occurrence is depicted by 416 tokens of adverbial clauses, meanwhile in professional academic articles is shown by 805 tokens of noun modifier represented by *of*-prepositional phrase as postmodifiers.

IMPLICATION OF SENTENCE COMPLEXITY CONSTRUCTION

Portraying a line from each occurrence, the implementation of each syntactic functions in draws a clear pattern, specifically in professional academic writer. This bottom-up investigation of professional academic

articles written by Indonesian writers provides grammatical features which are commonly implemented. The gap frequency among the three grammatical types constitutes a strong conclusion that professional academic articles employ phrasal sentences more frequent than clausal sentences. Upon contrasting the frequency of each occurrence in undergraduate essays with professional academic articles, there are three implications to be drawn: firstly, commonly used grammatical function by undergraduate students; secondly, the unique occurrence of interchangeable used of clausal and phrasal sentences; thirdly, the less appealing construction of nonfinite dependent clause.

The first implication is that the most frequent grammatical types found in undergraduate essays represents students writing proficiency level. The high occurrence of finite dependent clause, represented by WH relative clause and *because*-clause, is a showcase of students' early developmental stage of complexity in writing, due to the starting progression of complexity begins at finite clause (Biber, et al., 2011). Thus, it suggests that the undergraduate students are not yet in advance proficiency level, judging from the strong gap between the number of clausal production of undergraduate students and professional academic writers. Moreover, the result of sentence constructions in form of basic clausal sentence reflects that the students are much influenced by their spoken discourse than their writing discourse. In fact, finite dependent clause viz *that*-clauses, WH clauses, causative adverbial clauses, and conditional adverbial clauses are characteristics of interpersonal spoken registers (Biber, 1998).

Reasons supporting these implications are as follow, firstly, the nature of the learners are much influenced by the exposure of their environment. In EFL classes, the common setting used is instructional setting where students learn the language from the teacher. In this setting, the exposures commonly come only from the teacher as the source of feedback and instructor that the students interact with (Lightbown & Spada, 1999: 94). It impacts on the students limited range of discourse types experience and makes them

struggle to distinguish the spoken and written discourse. Lightbown and Spada (1999: 94) also argue that this setting also causes a great pressure to students in writing because they need to write correctly from the very beginning. Secondly, the role of cognitive works takes part in affecting students' production. Speaking is considered as pre-cognitive process where its production is less controlled, can produce numerous varieties of clauses, and it can be revised right after it is produced (Lieberman, 1992). On the other hand, writing is a cognitive process which needs awareness from the learners since it is a controlled composition (Jozsef, 2001; Hubert, 2011). The comfortable feeling in producing utterance in speaking is commonly brought to their writing. Therefore, it is also highly possible that spoken discourse characteristics are found in their writing productions.

The second implication is that the almost similar number of occurrence of finite dependent clause and non-clausal sentences indicates that students are learning to produce phrasal sentences, though the portion of phrasal sentences is not yet satisfying compared to that of professional academic articles. The frequency of *of*-prepositional phrase as noun modifier is considerably outnumbered by other syntactic functions such as *in*-propositional phrase as adverbial, *because*-clause, and WH relative clause. Meanwhile, in professional academic text, this function appears the highest among other syntactic functions from different types. Constructing *of*-clause is predicted to be relatively difficult for undergraduate students, as their spoken discourse stimulus does not include much of constructing *of*-prepositional phrase because this feature is commonly characteristics of formal written registers (Biber, 1988).

The third implication is that nonfinite dependent clause is utilized minimally in both text genre. Nonfinite dependent clause is also characteristics of written registers (Biber, Concard, & Leech, 2002), and students once again not yet succeed in portraying the writing characteristics in their works. Professional academic article also indicates quite low frequency of nonfinite clause, for only making 154 tokens; however it is considerably higher than

the use of definite dependent clause. Also, the very significant gap compared to nonfinite dependent clause produced by undergraduate students strengthens the showcase of students' writing proficiency level.

However, this unique phenomena where both writer groups tend to avoid nonfinite clause occurs with a consideration that, generally, this condition reflects that students are already following the tendency of writing in modern era. In earlier centuries, the ways of writing are widely elaborated by using non- finite dependent clauses. Furthermore, this way of writing are much influenced by the characteristics of literature ways of writing which tend to elaborate their sentence until reaching the clarity of meaning. This findings is also in line with Biber and Gray (2010) who find out that the less appearance of non-finite dependent clause are caused by the researcher in modern tend to us phrasal words to convey meaning in academic writing. It is different from when classical English literature works has much influence toward academic writing. Back there, researchers have usually focused on dependent clauses (or subordinate clauses) as the primary measure of structural elaboration. The findings also reveals that even though the students of Ganesha University of Education are interchangeably use their spoken and written discourse, they are on the right development to be able to write academically. Biber (2006) states that the less used of non-finite dependent clause also reflects that writers already have awareness to write with less associated with speech.

However, even academic writers will not neglect the fact they still use dependent clause in their sentence, whether as a complement or as adverbial. According to Biber and Gray (2010), the use dependent clause are optional modification. It is added on to the core structure of the main clause to elaborate the meaning of main verbs. Therefore, the appearance of dependent clauses are highly possible to find. Since it is optional, the use of dependent clause should not be the main way of academic writing.

IMPLICATION FOR ELT AND AUTHENTIC ASSESSMENT

The findings on this study have several contributions toward English language teaching, especially in teaching academic writing for college students and its assessment. As primary concerned, teacher cannot assume that his/her students have sufficient knowledge in using noun phrasal to construct their academic writing in a first place. Looking at the result, students' inability to construct academic language is much influenced by their speaking habits and the noun phrasal in sentences is interchangeably used.

As the repressive action toward the findings, teacher may take complex sentence usage in academic writing as primary concern in teaching writing. It can also be integrated in grammar review as a focus of practise. Students need to be taught deeply about the function of particular noun phrase and/or clauses in paragraph construction.

The other idea to solve this problem is assigning students to have extensive reading outside the classroom. They may read articles from international journal to enrich their knowledge how international writers construct their paragraphs coherently and cohesively. In addition to extensive reading, they also need to practice writing by using whether clause or phrasal sentence to certain writing condition. In this case, teacher should provide exercise that triggers them to comprehend the use of complex sentence. The exercise can be a cloze test, where the students are provided with a model text and the phrasal parts are omitted. It can also be a judging task, where the students are provided with a model text containing kinds of complex sentence, and they have to judge whether its usage has been appropriate.

In relation to authentic assessment, the use of corpus-based analysis has successfully proved that its usage provides a diagnostic feedback on areas of needed improvement. Assessing the students' nature from the findings, the area of needed improvement is the interchangeability of finite-dependent clause usage. As mentioned previously, the use of dependent clause is actually optional, and that makes its usage should not be more than phrasal sentence.

Teachers, in this case, may implement the use of corpus-based analysis

in classroom activities. Teacher may implement it into several steps. As initial implementation, teachers may conduct as what the researchers had done (collecting their writing, doing corpus-based analysis, and describe the findings). The follow-up activity will be about how to give feedback to them about their nature of writing and the expected nature of writing. Another way, besides assessing and giving general feedback toward students, the follow-up activity can be done in form of synergizing the findings of this research to the aspects of academic writing (the writing process, elements of writing, and the accuracy (Bailey, 2006)). Teacher may also wrench out some of the findings to give students clear example of what area they need to improve. Furthermore, in order to investigate the students' progress in writing, teacher may do the cycle over after giving feedback on students' ways of writing and instruct them to re-construct their writing. This also become a suggestion for further research which is in line with this research.

CONCLUSION

Advance writing embodies implementation of complex sentences, however many assumes that sentence complexity is represented by increasing dependent clauses. Spoken registers and written registers indeed employ different type of complexity, where clausal is typical of spoken registers and phrasal is that of written registers.

This present study reveals that undergraduate students' writing features, represented by 52 undergraduate students in second year of Ganesha University of Education, are dominated by clausal sentences rather than phrasal. The high occurrence of finite dependent clause becomes evidence of students' early stage of acquiring complexity in writing. Therefore, upon completing this analysis of their essays, authentic assessment to improve their writing performance can be done accordingly. Moreover, the use of corpus-based analysis has successfully proved that its usage provides a diagnostic feedback on areas of needed improvement.

REFERENCES

- Bailey, S. (2006). *Academic Writing: A Handbook for International Students (Second Edition)*. NY: Routledge
- Baker, P. (2010). Corpus Methods in Linguistics. In Lia Litosseli (Ed.), *Research Methods in Linguistics*. (93-113). New York: Continuum.
- Biber, D. (1985). Investigating Macroscopic Textual Variation through Multi-feature/ Multi-dimensional Analyses. *Linguistics*, Vol.23, 337-360.
- Biber, D. (1986). Spoken and Written Textual Dimensions in English: Resolving the contradictory Findings. *Language*, Vol.62, 384-414.
- Biber, D. (1988). *Variation Across Speech and Writing*. Cambridge, England: Cambridge University Press.
- Biber, D. (2006). *University language: A Corpus-based Study of Spoken and Written Registers*. Amsterdam: John Benjamins
- Biber, D., Concord, S., & Leech, G. 2002. *Longman Student Grammar of Spoken and Written English*. Pearson Education Ltd: England
- Biber, D. & Gray,B. (2010). Challenging Stereotypes About Academic Writing: Complexity, Elaboration, Explicitness. *Journal of English for Academic Purposes*. Vol. 9. pp.1-20.
- Biber,D., Gray,B., Poonpon,K. (2011). Should We Use Characteristics of Conversation to Measure Grammatical Complexity in L2 Writing Development? *TESOL QUARTERLY*. Vol. 45 (1) pp. 5-35
- Brown, H.D. & Abeywickrama,P. (2010). *Language Assessment: Principles and Classroom Practices (2nd edition)*. New York: Longman.
- Finch, A.E. (2002). Authentic Assessment: Implications for EFL Performance Testing in Korea. *Secondary Education Research*. Vol.49. pp. 89-122
- Gordon,P.C., Hendrick, R., Johnson,M. (2004). Effect of Noun Phrase Type on Sentence Complexity. *Journal of Memory and Language*. Vol 51.pp. 97-114
- Grossman, M., Lee, C., Morris, J., Stern, M.B., Hurtig, H.I. (2002). Assessing Resource Demands during Sentence Processing in Parkinson's Disease. *Brain and Language*, 80, 603-616
- Gulikers, J.T.M., Bastiaens,T.J., Kirschner,P.A. (2004). A Five- Dimensional Framework for Authentic Assessment. *Educational Technology Research and Development*. Vol.52 (3). Pp.67-86.
- Herrington, J.A. & Herrington,A.J. (2006). Authentic Conditions for

- Authentic Assessment Aligning Task and Assessment. In A. Bunker & I. Vardi (Eds.), Proceedings of the 2006 Annual International Conference of the Higher Education Research and Development Society of Australasia Inc (HERDSA).
- Hubert, M.D. (2011). The Speaking-Writing Connection: Integrating Dialogue into a Foreign Language Writing Course. *Electronic Journal of Foreign Language Teaching*. Vol. 8(2).pp. 170-183
- Jozsef, H. (2001). *Advanced Writing in English as a Foreign Language: A Corpus-based Study of Processes and Products*. Pecs : Agora Nyomda.
- Kim, J. (2014). Predicting L2 Writing Proficiency Using Linguistic Complexity Measures : A Corpus- based Study. *English Teaching*, Vol 69 (4) 27-50.
- Leech, G., Garside, R., & Bryant, M. (1994). CLAWS4: The Tagging of the British National Corpus. *Proceeding of 15th International Conference on Computational Linguistics (COLING 94)*, (pp. 622-628). Kyoto.
- Liberman, A.M. (1992). The Relation of Speech to Reading and Writing. *Haskins LalJora*. SR-109. Pp. 119-128
- Lightbown, P.M. & Spada, N. (1999). *How Languages are Learned*. Oxford: Oxford University Press
- Lu, X. (2011). A Corpus-based Evaluation of Syntactic Complexity Measures as Indices of College-level ESL Writers' Language Development. *TESOL Quarterly*, Vol 45 (1), 36-62.
- Nelson, N.W. (1993). *Childhood Language Disorders in Context : Infancy through Adolescence*. Merrill : New York.
- O'Malley, J.M. & Pierce, L.V. (1996). *Authentic Assessment for English Language Learners: Practical Approaches for Teachers*. USA: Addison-Wesley
- Ortega, L. (2003). Syntactic Complexity measures and their relationship to L2 Proficiency: A Research Synthesis of College-level L2 writing. *Journal of Applied Linguistics*, Vol 24 (4), 492 – 518.
- Shitadevi, I., Yannuar, N. (2014). The Use of Active and Passive Voice Constructions to Reveal Stance: Corpus-Based Study on English Department Students' Academic Writing. *Proceeding of 1st English Language and Literature (ELITE) Conference*, (p.161-169). Malang
- Wiechmann, D., & Fuhs, S. (2006). Corpus Linguistics Resource Concordancing Software. *Corpus Linguistics and Linguistics Theory*, 2 - 1, 107-127.

- Wiggins, G. P. (1993). *Assessing student performance: Exploring the purpose and limits of testing*. San Francisco, CA: Jossey-Bass/Pfeiffer.
- Wood, N. & Struc, N. (2013). A Corpus-based, Longitudinal Study of Syntactic Complexity, Fluency, Sentence Variety, and Sentence Development in L2 Genre Writing. *Reitaku University Journal*. Vol 93. pp. 1- 44.