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Planning time in Relation to Complexity of the Writing Task Performance of EFL learners in Non-English Country: Case Study at English Department Khairun University, Indonesia

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Abstract

Writing is a place to express feelings and thoughts in relatively permanent form. However, it becomes problematic because it requires certain linguistic features such as fluency, accuracy, and complexity, (the latter being the dependent variable for the study). One way to overcome these problems is through planning. Thus, this research is focused to find out the effect of planning on complexity in the writing performance especially in EFL learners. There are 20 final-year of undergraduate students of Unkhair involved and are selected through individual IELTS prediction writing-test. This study applies Independent t-test for the first variable of complexity: richness and diversity, and the second variable: size and elaborateness uses Wilcoxon-Mann-Whitney U test. The study uses two different groups as independent variables: 1) Planning group will be coded P1, P2, P3, and so on, while 2) without planning group will be coded WP1, WP2, WP3, and so on. The result of the study presents that the mean score in planning groups of both number of words per T-unit and number of clauses per T-unit are generally higher with 10.684 and 1.487, respectively, than in without planning group with just 9.403 and 1.225, respectively. The figures conclude that through planning which happened before the writing, helps the learners to accomplish a better performance regarding the number of words and clauses occur per T-unit.

1. Introduction

Writing activity is a platform that can be efficiently utilized by people especially scholars to put their feelings and thoughts in relatively permanent form, e.g., journals, books, etc. Yet, writing is also one of the most challenging skills for learners to express their ideas in a meaningful manner and correct form. In particular, for foreign language learners, it becomes more problematic as they should not only write legibly, organized, logically, and sensible, but also in more

detail judgements such as whether they invoke the rules of grammar and syntax of the target language or not, and etc., Paltridge (2004) argued that when the foreign language writers attempt to approximate meaning by discovering and reformulating ideas, they usually find the writing tasks difficult and problematic. The prominent problems that often found is something that relates to the features of linguistic performance: fluency, accuracy, and complexity (Ellis & Yuan, 2004; Mahdavirad, 2016; Robinson, 1995, 2001; Skehan, 1998), the latter of which is dependent variable for this study.

Skehan (1998) and Robinson (2003), as second language researchers, have a different perception on how language learners produce target language in relation to task complexity. Earlier in language pedagogy, an approach of cognitive capacity to language learning proposed by Skehan (1998) underpinning that the cognitive capacity of human may restrict the language learners to comprehend meaning and form: grammar rules, syntax, organization, etc. Therefore, if the task complexity gets more difficult and more challenging, it will create a trade-off effect in language performance, including in the writing activity. Later, Robinson (2003), had a different idea and turned to oppose this hypothesis which emphasis that learners' performance would not be affected by such task complexity. He claimed that language learners' attention does not compete when access multiple comprehension, but they can simultaneously access them by manipulating task complexity which can lead to the improvement of complexity and accuracy. Inspired by this debate some studies have been carried out to overcome or at least to avoid the trade-off effect. One of the ways is through planning (Ellis & Yuan, 2004).

In that study, it was claimed that planning is predicted to provide more effective output as learners are allowed to formulate and organise their ideas before they put it into the writing form. Thus, to respond this particular idea and in order to investigate the linguistic performance of the students: especially complexity in relation to task given in the writing, planning become independent variable of this study, and un-planning as the control one. Moreover, since the number of previous researches were mostly investigated the influence of planning on second language learners' performance regarding the oral production (Foster & Skehan, 1996; Mehnert, 1998; Mortezanejad, 2008; Ortega, 1995, 1999; Yuan & Ellis, 2003) and there is scarcity of studies that devoted to writing performance, this case study is aimed to contribute to the research which investigates the effect of planning on complexity in the writing performance especially in EFL learners.

2. Review of Related Literature

A general question regarding to what extent a language learner's proficiency measured was popular among language pedagogy and language assessment researches. Earlier, Brumfit (1984) employed fluency and accuracy as the main measurement for language proficiency of language learners. Fluency was measured regarding an impromptu production while accuracy was for measuring the linguistic form. Later, complexity was included in order to complete the gap in accuracy as it was considered inadequate enough regarding to measure richness and complexity of lexicon (Ortega, 1995; Wolfe-Quintero, Inagaki, & Kim, 1998). According to Ellis (2003), accuracy is the ability to produce error-free production, fluency is the ability to yield 'language native-like rapidity' regarding the number of hesitation, pauses, and reformulation, and complexity is about how complex in

terms of elaboration and how varied the language output produced by language user into the assigned task.

Ellis and Yuan (2004) explained that planning consists of 'pre-task planning and within-task planning'. Within-task planning is happened on-line while doing the task. It consists of pressured and unpressured. In pressured, learners are strictly limited with time to finish the assigned task, whereas, unpressured does not constraint the learner with the time limit. While in the pre-task planning, it includes rehearsal and strategic planning. 'Rehearsal is the planning which happened between the tasks, while strategic planning is the planning given to prepare the content and language style, the latter of which is the type of planning that will be used in the design of this study.

In this literature review, I would firstly discuss about the previous studies of planning time and its effect regarding the oral performance of the learners. Then, I would present the studies related to planning task on the Writing performance.

2.1 Planning time on Oral Task

Ortega (1995) investigated some American students who learned Spanish as a foreign language through monologic production tasks in the two groups of fourteen: with and without planning time. The finding shows that the group with planning time illustrated no significance result regarding accuracy, however, the complexity was found improved as the students with planning time generated more complex language. One year later, Foster and Skehan (1996) conducted a study which examined the influence of strategic planning towards the linguistic performance of the learners through two different genres of the tasks: personal and narrative. Their hypothesis predicted that the fluency and accuracy would happen in the least cognitively demanding task which was personal task. However, the finding was not supported and tended to be the vice versa. Other study was from Mehnert (1998) who explored the effect of different lengths of planning on oral performance of ESL learners. Generally, he found that having a planning can improve the speech performance of the learners in terms of fluency and lexical density. In particular, the finding presented that accuracy improved with only one-minute planning but did not develop with more amount of time. For complexity, it needed at least 10 minutes of planning to result a significant improvement. Furthermore, Yuan and Ellis (2003) explored two planning time: strategic and on-line one. In general, they reported that fluency improved on strategic planning whereas accuracy occurred significantly in on-line planning. The recent study, Mortezanejad (2008) in his master thesis investigated the effect of planning time towards two different groups: intermediate and advanced learners, regarding fluency and accuracy in the task with and without strategic planning. The findings reported that both groups experienced improvement in terms of fluency in the strategic planning, however, regarding accuracy, it is statistically observed no difference of both groups although planning time was provided, neither in on-line planning time.

In summary, in the brief perusal of most studies in oral production above concluded that in the planning time, accuracy and fluency tend to improve albeit it was slightly one (Foster & Skehan, 1996; Yuan & Ellis, 2003), and complexity as reported in Ortega (1995) study, was significantly improved as the students have

plenty of time to prepare and think about either syntactical variety and complexity, or even the lexical variety.

2.2 Planning time on Writing Task

Dellerman, Coirier, and Marchand (1996) investigated the effect of planning in argumentative writing who predominantly sampled ESL non-proficient writers. The hypothesis of the study was a prior planning and writers' proficiency in writing become salient factors of the quality of the writing. Their argument was that through planning, the writers' writing output would develop in terms of organization of information which primarily rely on the relationship of logical thinking. Finally, the finding supported the argument and concluded that planning was best suggestion for non-proficient writers. Ellis and Yuan (2004) explored the impact of planning in ESL learners' narrative writing. In the study, the learners produced narrative writing which according to the provided-pictures and being done in three different planning situations: without planning, pre-task planning, and on-line planning. To assess the writing output, the study utilized measurements: fleuency, accuracy, and complexity. The result reported that both situations which provided planning: pre-task and on-line planning, gave positive result in terms of those three measures. In particular, the pre-task planning was advantageous for learners to formulate the task, and on-line situation was also beneficial espeacially for monitoring the task. Conversely, in without planning condition yielded no improvement for all measures. The most recent study was conducted by Ojima (2006). He investigated the role of planning in the three ESL Japanese students' writing performance. The participants were asked to write four essays under two different conditions: with planning and without planning. He reported that complexity and accuracy were improved in pre-task planning situations, however, accuracy did not.

To conclude, the summary of the studies above yielded that the existence of planning time on the writing tasks is advantageous to improve the performance of the writing ouput of the learners (Dellerman et al., 1996; Ellis & Yuan, 2004; Ojima, 2006). The results of these brief perusals studies are equivalent with previous results of the effects of planning in oral performance. However, of all samples of the studies which investigated the effect of planning time in writing performance, none of them sampled English as a foreign language learners (EFL learners) especially in the context of where English is not a medium of Instruction. Therefore, to fill the gap, this study is aimed to investigate the effect of planning time in the writing performance which involves EFL learners as the predominant sample of the study in the non English speaking country, Indonesia.

3. Methodology

3.1 Participants

The participants are 20 final-year (by the time this data is collected) undergraduate students in the English Department of Khairun University, Indonesia. They are all foreign English language learners between 20 and 25 years old. These students have learned English since they were (at least) in the last year of their Senior High Schools. None of them have ever been to an English speaking countries which revealed that they have been learning English through instructed way. Beside in the classroom, they have very little opportunity to use their English to communicate with others. They are selected based on their result in IELTS prediction test conducted by the researcher in the middle of March, 2021. Their

scores are between 5 and 6 in the writing section. The writing section was assessed locally by 3 senior lecturers of 2 Universities, i.e. English Department, Ukhair, and English Department, Unhas. Therefore, according to the learning history and the results of English writing proficiency test, the participants are considered as homogenous. I use R program to test whether the participants are randomly sampled, normally distributed, and homogenous variance. In addition, prior to the data collection, they were asked voluntarily and requested to fill the consent form.

3.2 Task

The type of the assigned task is argumentative writing where the students should argue one general topic. The topic of the given task is adopted from Cambridge IELTS 10, Academic task 2, practice test 2, Cambridge (2005). The topic is *"More and more people are relying on the private car as their major of transportation. Describe some of the problems overreliance on cars can cause, and suggest at least one possible solution?"* (Cambridge, 2005).

3.3 Measures

As mentioned in advance discussion, this study will be limited to only measure complexity since to include accuracy and fluency is not sufficient due to the limited time. Referencing to some of previous studies about how to measure complexity which closely resemble on how to measure complexity in EFL learners, Robinson (2001) and Skehan (2001) explained about L2 learners complexity measurement. They divided complexity into two types: cognitive complexity and linguistic complexity which both of them explained about the language features and its subsystem, respectively. In this study, since cognitive complexity is broader notion, I use the linguistic capacity which focus to measure the size, elaborateness, richness and diversity of the linguistic system of the writing output of the learners. A simplification of complexity measures from syntactic complexity, syntactic variety, and mean segmental type-token ratio (MSTTR), (Ellis & Yuan, 2004) was presented in Ojima (2006) study which referred to the guidelines from Polio (1997). Ojima explained complexity as number of words per *T*-unit to particularly measure richness and diversity, and a number of clauses per *T*-unit for size and elaborateness. *T*-unit is an independent clause with its dependent clauses. (Hunt, 1965)

3.4 Design

This study applies Independent t-test for the first variable of complexity: the number of words per T-unit, and the second variable uses Wilcoxon-Mann-Whitney U test. The study uses two different individuals as independent variables. 20 students are assigned randomly into two different groups: 10 participants in a group with strategic planning, and other 10 participants in a control group where planning is not presence. The first group applies strategic planning before executing the topic provided. There is 15 minutes given to plan the writing and then 30 minutes to produce writing. Another group produce writing directly as soon as the topic has given with 30-minute time without doing planning. Both groups are required to write of at least 250 words within 30-minute time. The outputs of the writing of both groups are then analysed in terms of complexity.

The design can be summarized as follows:

1) Dependent variable: complexity

   a) $\frac{number\ of\ words}{T-units}$ → richness and diversity

   b) $\frac{number\ of\ clauses}{T-units}$ → size and elaborateness

2) Independent variables: planning *vs.* without planning.
3) Planning group will be coded P1, P2, P3, … and so on, while without planning group will be coded WP1, WP2, WP3, … and so on.

4. Result

First of all, the table 1 (see table 1) shows the procedure on how the data is analysed before the statistical analyses are conducted. And the table 2 (see appendices) shows the descriptive statistics for the planning conditions: planning and without planning with respect to dependant variables: Fluency (number of words per *T*-unit and number of clauses per *T*-unit), and also the result of normal distribution test and variance test which all of them are done in R program. In a brief look, the result presents that the mean score in planning groups of both number of words per T-unit and number of clauses per T-unit are generally higher with 10.684 and 1.487, respectively, than in without planning group with just 9.403 and 1.225, respectively. From this number, it can be inferred that the greater the mean, the complex the writing performance should be. Therefore, to prove this assumption, it is important to do an inferential statistic.

Secondly, according to the data in table 2, p-value and variance, one of the complexity variables: number of words per T-unit, can be treated as parametric data. The reasons are: firstly, the data are randomly sampled, secondly, albeit the samples are less than 30, but after conducting Shapiro Wilk test in R, the p-value of both groups are 0.2487 and 0.4007 which are higher than 0.05. It means, the data are normally distributed. And the last but not the least, the variance scores are homogenous or do not differ significantly: 0.67416 and 0.40111. Therefore, for the first variable (the number of words per T-unit) is tested through independent t-test.

The alternative hypothesis is “the mean score of complexity is higher in the planning time group than in the group without planning”. As for the first variable of complexity: the number of words per T-unit, the result in Independent t-test shows that t = 3.9065, df = 16.91, and p-value = 0.001146 which is less than 0.05. From this result, it can be concluded there is a significant different between planning group and without planning group in terms of richness and diversity of the writing performance. According to the mean, it reported the planning group did better than without planning in terms of how many words produced per T-unit with 10.684 in planning group and 9.403 in without planning group. Therefore, for the first variable, we can reject the null hypothesis and support the alternative hypothesis.

Table 1. Procedure

Students ID	Total Words	Number of T-units	Number of Clauses	Number of words per T-unit	Number of clauses per T-unit
P1	262	29	38	9.03	1.31
P2	367	35	52	10.48	1.48
P3	300	31	49	9.67	1.58
P4	389	36	54	10.80	1.50
P5	269	25	42	10.76	1.68
P6	333	31	44	10.64	1.41
P7	275	24	37	11.45	1.54
P8	369	32	46	11.53	1.43
P9	325	30	44	10.83	1.46
P10	326	28	40	11.64	1.42

Students ID	Total Words	Number of T-units	Number of Clauses	Number of words per T-unit	Number of clauses per T-unit
WP1	266	26	38	10.23	1.46
WP2	214	23	26	9.30	1.13
WP3	257	27	31	9.51	1.14
WP4	197	22	24	8.95	1.09
WP5	220	26	30	8.46	1.15
WP6	246	27	29	9.11	1.07
WP7	208	23	28	9.04	1.21
WP8	192	18	25	10.66	1.38
WP9	246	26	32	9.46	1.23
WP10	270	29	35	9.31	1.20

Table 2. Descriptive Statistic

Complexity	Planning Conditions	N	Mean	Standard Deviation	P-Value	Variance
Number of ***words*** per T-unit	Planning	10	10.684	0.821	0.2487	0.67416
	Without Planning	10	9.403	0.633	0.4007	0.40111
Number of ***clauses*** per T-unit	Planning	10	1.481	0.102	0.9383	0.01047
	Without Planning	10	1.206	0.125	0.1203	0.01562

Table 3. The Mean of Complexity Measurement

Complexity	Planning Group	Without Planning Group	Different
Number of words per T-unit	10.684	9.403	1.281
Number of clauses per T-unit	1.481	1.206	0.275

Third of all, albeit the data are randomly sampled, and the p-value in normal distribution test of the second variable of complexity is higher than 0.05, however the variance shows 0.01047 in planning group and 0.01562 in without planning group which means the data are not homogenous. Thus, unlike the first variable, this second variable is tested through Wilcoxon-Whitney U-test. The result in Wilcoxon-Whitney U-test found that W = 94.5 and p-value = 0.0008768 $n_p = 10$, $n_{wp} = 10$ which is less than 0.05. This means that in terms of number of clauses per T-unit, there is a significant different between planning and without planning group. Therefore, it can be concluded that planning group did better in terms of size and elaborateness in writing performance. From this inference, the alternative hypothesis that stated “the mean score of complexity is higher in the planning group than in the group without planning” is supported.

5. Discussion

The results of statistical analysis above reported the significant different between planning and without planning groups in terms of the number of words per T-units and the number of clauses per T-units. The results also explain that through planning which happened before the writing, helps the learners to accomplish a better performance regarding the number of words and clauses occur per T-unit. The finding is in line with the claims from some of previous researchers either in oral production researches, i.e., (Mehnert, 1998; Ortega, 1995) or in writing performance studies, i.e., (Dellerman et al., 1996; Ellis & Yuan, 2004; Ojima, 2006) which the point is that through planning, the learners have plenty of time to formulate and organise their ideas before they put it into the piece of writing. Regarding the effect of planning towards the number of words and clauses produced per T-unit, in the present study, the means in planning time gave a statistically significant effect on producing better writing regarding richness, diversity, size, and elaborateness, compared to without planning. The mean difference between planning and without planning in terms number of words and clauses per T-unit are 1.281 and 0.275, respectively, (see appendices, Table 3.)

Hence, according to the statistical results and the relationship between planning and the complexity of the students writing which consist of two variables: the number of words produced per T-unit and the number of clauses per T-unit, it is

found that richness, diversity, size, and elaborateness can occur simultaneously which turn to support what Robinson (2003) said about multiple comprehension of complexity and accuracy which in this study complexity between the comprehension to produce words and clauses can simultaneously happen in the writing task, and therefore there is no competition in producing more complex words in terms of richness and diversity and clauses in terms of size and elaborateness. Furthermore, it opposed the cognitive human capacity theory by Skehan (1998) who emphasise the trade-off effect when doing the task complexity which may restrict the language learners to comprehend meaning and form simultaneously. Last but not least, through planning, as suggested by Ellis and Yuan (2004), can provide a better impact regarding the readiness of the learners to formulate and organize ideas before they put it in the writing, therefore, the complexity of both variables have significant different between planning and without planning group.

6. Conclusion

To sum up, this study finds out that EFL learners, especially in the Khairun University, Indonesia, through planning, can produce better complexity in writing. The number of words and clauses found more complex with planning since the learners can organise and formulate their ideas beforehand.

The variables used only one: complexity, since the time to finish this research is very limited. Therefore, the notion accuracy and fluency are not represented. Moreover, the number of participants are very limited (20 students), thus, the result cannot represent EFL learners generally. In addition, the data would be more reliably and can provide a better understanding if it can be supported by interview.

For the future research larger sample and more variables would be better and representative. Another suggestion in terms of writing research contribution to reach the writing with sensible, and logically dense manner, it needs more variables instead just limiting to only some linguistic features, i.e., complexity, accuracy, and fluency. It might be better to move forward to the semantic and pragmatic meaning of the writing which involves context in it. Therefore, the quality of the writing can be measured objectively through statistical test. However, some challenges might be taken into consideration such as the needs to construct valid dependant variables in order to measure it quantitatively.

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