THE EFFECT OF TASK COMPLEXITY ON STUDENTS' SPOKEN PERFORMANCE BY EIGHTH GRADE STUDENTS OF SMPN 21 BANDAR LAMPUNG

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Abstract: The aim of this study is to investigate the effect of task complexity on students' spoken performance in terms of complexity, accuracy and fluency (CAF) and the relationship between students' perception of the task complexity and students' spoken/oral performance in terms of CAF. The subjects were the eighth grade students of SMPN 21 Bandar Lampung. The result of the research showed that, the simple task complexity with manipulating task complexity along with two dimensions resource-directing and resource-depleting can be used to increase the students' complexity and fluency on students' spoken performance. Moreover, the complex task complexity with manipulating task complexity along two dimensions resource-directing and resource-depleting can be used to increase the students' accuracy and complexity. Besides that, the students had problems in performing the task not only because of the level of task complexity (cognitive factors), but also because of the other factors such as task difficulty (learner factors e.g., confidence, motivation).

Keywords: *CAF, task complexity, TBLT.*

Abstrak: Penelitian ini bertujuan untuk mengamati efektifitas task complexity pada kinerja lisan siswa dalam hal complexity, akurasi dan kefasihan dan hubungan antara persepsi siswa terhadap task complexity dan kinerja lisan siswa dalam hal complexity, akurasi dan kefasihan. Subjek penelitian adalah siswa kelas delapan dari SMPN 21 Bandar Lampung. Hasil penelitian menunjukkan bahwa, task complexity sederhana dengan memanipulsi task complexity dengan dua dimensi dari resource-directing dan resource-depleting dapat digunakan untuk meningkatkan complexity dan kefasihan siswa pada kinerja lisan siswa. Di sisi lain, task complexity rumit dengan memanipulasi task complexity menggunakan dua dimensi dari resource-directing dan resource-depleting dapat digunakan untuk meningkatkan akurasi dan complexity siswa. Selain itu, siswa mengalami masalah dalam menjalankan tugas bukan hanya karena tingkat kompleksitas tugas (faktor kognitif) tetapi juga karena faktor lain seperti kesulitan tugas (faktor siswa seperti keyakinan diri dan motivasi).

Kata Kunci: *CAF, Task Complexity, TBLT.*

INTRODUCTION

Learning English is often related to learning how to speak the language. As Ur (1996:134) states, speaking is not just 'any skill', it is arguably the most important and therefore should take priority in any language test. This indicates that speaking plays a crucial role in communication. However, teaching speaking at schools is often neglected in the class. In practice, many learners feel frustrated as they find that speaking in a foreign language is a complex matter.

Nowadays, some different methods, approaches, and techniques are employed in order to encourage students to speak English. Well prepared lesson and clear instruction during the lesson are considered motivating. Some techniques used by the teachers recently are the ones characterized as communicative techniques. Learners are actively involved in opportunities to practice the language with other learners for functional purposes and the focus is not on the forms of language, but rather on making meaning. Therefore, the shift from 'traditional' teaching practice to task-based learning is based on the belief that task-based approaches promote more effective language learning (Long, 1985; Swan, 2005; Shehadeh andCoombe 2010 in Mahpul 2014:10).

The development of Task-Based Language Teaching (TBLT) has involved a paradigm shift in language teaching and learning from the traditional, synthetic approaches in which language teaching has a primary focus on forms, discrete-learning, and teacher-centered activities to task-based approaches which actualize language as a means of communication, one which places the communication as the heart of teaching procedures (Van de Branden et al., 2009 in Mahpul 2014:11).

There have been many studies concerning with the implementation of Task-Based Language Teaching in speaking performance. Most of them are focused on trying out the Cognition Hypothesis proposed by Robinson. Furthermore, the Cognition Hypothesis distinguishes three factors. The first is task condition which refers to interactive demands of tasks, including participation variables (e.g., open vs. closed tasks, convergent/divergent, one way/two way) and participant variables (e.g., same vs. different gender, familiarity, power/solidarity). The second category of task difficulty has to do with individual differences in learner factors, such as working memory capacity, which can impact the extent to which learners perceive task demands difficult to meet. These factors, Robinson argued, explain why two learners may find the same task to be more or less difficult than each other. The last component, task complexity, refers to the cognitive demands of tasks, such as their reasoning demands (Robinson, 2001a:294). Those three factors are called Triadic Componential Framework (TCF).

The TCF divides task features affecting the cognitive complexity of tasks along two dimensions. Resource-directing dimensions of

cognitive complexity will be associated with simultaneous increases in complexity and accuracy, but decrease fluency. On the other hand, increasing complexity along resource-depleting dimensions reduces attention and memory resources with negative consequences for production. Additionally, Robinson (2007:209) assumes that increasing task complexity along resource-directing dimension can recapitulate the effects of conceptual development on linguistic performance. In contrast, the resource-depleting just influences the students' psychological condition. Furthermore, In the Triadic Componential Framework proposed by Robinson andGilabert (2007:164), resource-directing includes three variables, that is, +/- here and now, +/- few elements, and +/- reasoning demands, whereas, resource-depleting consists of +/- planning, +/- single task, and +/- prior knowledge variables.

Based on the previous studies above, none of them manipulated the task complexity by combining two dimensions of task complexity. Thus, this research focuses on resource-directing and resource-depleting by combining all aspects of both dimensions. However, as asserted by Robinson (2001b:35), synergetic effects of these resource-directing and resource-dispersing dimensions can be expected, such as Saeedi, Ketabi, and Kazerooni's studies (2012:1067) which show that comparison between task performances under different conditions revealed that reducing task complexity along resource-dispersing dimensions (i.e., +/- planning and +/- single task) and increasing it along the resource-directing one (i.e., +/- Here/Now) has *simultaneously* raised structural complexity and accuracy of production. The results indicated that participants had the optimum performance in terms of accuracy and fluency of their oral production.

Furthermore, this research examines the effects of task complexity in spoken performance in terms of complexity, accuracy and fluency (CAF) and the relationship between students' perception of the task complexity and students' spoken/oral performance in terms of complexity, accuracy, and fluency (CAF). It was done because many researchers and language practitioners believe that the constructs of L2 performance and L2 proficiency are multi-componential in nature and that their principal dimensions can be adequately and comprehensively captured by the notions of complexity, accuracy, and fluency.

METHOD

One group repeated measures design was carried out in this research. The subjects were the eighth grade students of SMPN 21 Bandar Lampung consisting of 30 students. There were two types of task which were given to the students. The tasks were made by combining and manipulating the three variables of resource-directing dimension (+/- few elements, +/- here-now, and +/- reasoning demand) and three variables of resource-depleting dimension (+/- planning time, +/- single task, and +/- prior knowledge).

The researcher used speaking test and also questionnaire as the

instruments of this research. The speaking test contained of simple and complex of task complexity which had been distributed to the students. Then, the students were asked to perform in front of the class with their pairs. The researcher used recorder to obtain the data. Questionnaire was also the instrument which was used in this research. The researcher adopted Robinson's questionnaire which consisted of 5 questions asking the students difficulty, stress, confidence, interest, and motivation of task complexity.

To obtain the data, the researcher recorded the students' utterances by using recorder application in the cell phone. Since there were 30 pairs who performed the task, there were 30 dialogues recorded in the cellular phones. The students' utterances need transcribing. It means that the spoken form must be transferred into the written form. Having done it, the written utterances were coded by certain symbols. They were coded into clauses, AS-unit, lexical words for complexity, number of errors for accuracy, and number of syllables and length of time for fluency. After conducting some procedures, the researcher analyzed the data by using SPSS.

RESULTS AND DISCUSSIONS

The result of manipulating simple and complex task complexity with manipulating task complexity along two dimensions resource-directing (+/-few elements, +/-here and now, +/-no reasoning demands) and resource-depleting (+/-planning time, +/-single task, +/-prior knowledge) on students speaking performance in terms of complexity, accuracy and fluency (CAF), the researcher analyzed students' speaking performance in terms of CAF by using statistical paired t-test analysis as follow:

Table 1: Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	syntatic_1 – syntatic_2	-.02333	.21966	.04010	-.10536	.05869	-.582	29	.565
	Lexical_1 Lexical_2	.01543	.08954	.01635	-.01800	.04887	.944	29	.353
	Accuracy_1 Accuracy_2	-.04700	.29607	.05405	-.15755	.06355	-.869	29	.392
	Fluency_1 Fluency_2	1.04353	29.16534	5.32484	-.45518	21.32585	1.95975	29	.060

The table shows that the simple and complex task complexity with manipulating task complexity along two dimensions resource-directing (+/-few elements, +/-here and now, +/-no reasoning demands) and resource-depleting (+/-planning time, +/-single task, +/-prior knowledge) on students speaking performance in terms of complexity, accuracy and fluency (CAF) show that the mean score of syntactic complexity between Task 1 with Task 2 was -.02333. Lexical complexity was .01543. On the other hand, the mean score of accuracy was -.04700. Besides, the fluency was 1.04353.

The explanation above shows that the task containing simple task complexity along two dimensions resource-directing (+few elements, +here and now, +no reasoning demands) and resource-depleting (+planning time, +single task, +prior knowledge) with dialogic task increased of syntactic complexity, lexical complexity, and fluency, but decreased in accuracy. Besides, the task containing complex task complexity along two dimensions resource-directing (-few elements, -here and now, -reasoning demands) and resource-depleting (-planning time, -single task, -prior knowledge) with dialogic task increased of accuracy, and syntactic complexity but decreased in fluency.

This result is in line with Robinson's Cognition Hypothesis (2003:45) which claimed that increasing the cognitive demands of tasks contributing to their relative complexity along certain dimensions will push learners to greater accuracy and complexity of L2 production in order to meet the consequently greater functional/communicative demands they place on the learner. Thus, the tasks containing more elements to be discussed, demanding to use simple past tense, and demanding reasons tend to have higher syntactic complexity. This fact supports Soleimani and Rezazadeh (2013:41) whose finding showed that the tasks which demanded students to provide reasons led to more complex language production. It means that the more reasons required, the more complex oral production will be, hence the complexity of the learners' oral production will automatically increase.

These research findings were relevant to the study done by Mahpul (2014) which stated that increasing complexity along resource-depleting dimension by including – Few Elements to discuss generated less fluent oral production. In line with Crespo's study in 2011, which described that the task with – Reasoning Demand variable decreased fluency.

The findings above supports Mahpul (2014) in which, assumes that simple task may have generated less fluent oral production compared to complex task when the participants were not familiar with the nature of model of tasks. Thus the prior knowledge (familiarity) in resource-depleting dimension influences the fluency in spoken performance. Mahpul 2014:27 argues that the tasks where planning time and prior knowledge are available and require a single activity, + planning, + prior knowledge, + single task, will be less cognitively demanding. Planning time is one factor within the resource-depleting dimension that has long been acknowledged as an

important part in the process of oral production. Planning is argued to be an affective way to reduce the cognitive load of demanding Consequently, increasing task complexity along with resource-directing dimensions can be expected to have a positive effect on learners' language production when the task is simultaneously simpler along with resource-dispersing/depleting dimensions.

The second purpose of this research was to find out the relationship between students' perception of task complexity and students' speaking activities (Crookes, 1989; Foster and Skehan, 1996; Skehan, 1996; Ellis, 2003 in Mahpul 2014:29).

performance in terms of Complexity (syntactic complexity and lexical complexity), Accuracy, and Fluency (CAF). The following table shows the correlation between Complexity (syntactic and lexical), Accuracy, and Fluency (CAF) and students' perception of difficulty, stress, confidence, interest, and motivation of students' perceptions of task complexity after the scores were analyzed by using SPSS.

Table 2: Correlations

		Difficulty	Stress	Confidence	Interest	Motivation
Syntactic Complexity	Pearson Correlation	.640**	.472**	.507**	.291	-.287
	Sig. (2-tailed)	.000	.008	.004	.118	.124
	N	30	30	30	30	30
Lexical Complexity	Pearson Correlation	.640**	.472**	.507**	.291	.152
	Sig. (2-tailed)	.000	.008	.004	.118	.242
	N	30	30	30	30	30
Accuracy	Pearson Correlation	.640**	.472**	.507**	.291	-.217
	Sig. (2-tailed)	.000	.008	.004	.118	.350
	N	30	30	30	30	30
Fluency	Pearson Correlation	.640**	.472**	.507**	.291	-.175
	Sig. (2-tailed)	.000	.008	.004	.118	.356
	N	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The Table shows the correlation between students' perception of task complexity and students' speaking performance in term of syntactic complexity, lexical complexity, accuracy and fluency (CAF). The coefficient score from students' difficulty of task complexity is r= .640 with significant level .000. The coefficient score from the correlation between CAF and degree of stress task complexity is r= .472 with significant level .008. The correlation between CAF and the students' confidence of task complexity show the score r= .507 and .004 the level of significant. Besides that, CAF and students' interest of task complexity show the score of correlation is r= .291 with .118 significant level. On

the other hand, the correlation between CAF and students' motivation of task complexity is r= -287 and the standard of significant level is .124.

From the result of correlation score and significant level between syntactic complexity, lexical complexity, accuracy and fluency (CAF) and difficulty, stress, confidence, interest, and motivation students' of task complexity above, it can be said that there is higher correlation between students' perception of difficulty and students' spoken performance in terms of CAF with positive significant. Besides that, there are medium correlation between stress and confidence of the students and students' spoken performance in terms of CAF while the significant level shows that there are negative correlations. While the correlation between students' spoken performance in terms of CAF and students' interest of task complexity shows the week correlation with negative significant of correlation. On the other hand, there is no correlation between CAF and students' motivation. It means that the significant level was negative.

This research findings show that the students felt easy to do the task because they had time to make preparation, the topic was interesting to them, and also they had background knowledge about the topic. The finding is in agreement with Robinson's (2001b:312) "prior knowledge of the role of the listener makes speaking tasks easier". Similarly, Robinson's (2001b:311) found that giving planning time, and furthermore focusing attention during planning time on relevant aspects of task structure, makes a task easier. In line with the findings of this study, it suggests that there is higher relationship between students' performance of task especially in terms of CAF with task difficulty, if the learners already have background knowledge about the task, have planning time to make preparation, and the topic of the task was easy, interesting and also something that relates to their preferences, the students are able to perform the task more easily.

Again, several participants also agree that being familiar (have background knowledge) (e.g., I felt relaxed because the task was easy to understand and because the topic related with us and I felt enjoyment and comfortable with English learning) with the task and having planning time to make preparation (e.g., I felt relaxed because being given the time to make preparation to perform the task), by performing them previously, make them feel less stressed and more relaxed.

Those findings are in line with Mahpul (2014:115) which stated that prior knowledge played a more dominant role in decreasing participants' degree of stress rather than the manipulation of both the number of elements (the resource-directing dimension) and planning time (the resource-depleting dimension). That is, even though the tasks were sequenced according to cognitive engagement, stress seemed to be more related to the issue of familiarity (prior knowledge) and also giving the time to prepare for performing the tasks makes the participants more relaxed or decrease participants' degree of stress.

However, 3.3% of students regarded that the task was difficult. When the participants were asked why the task was difficult, they mentioned such things as (e.g., It is difficult to do because I'm not confidence with my English ability). Furthermore, 10% of students' doubt that the task was easy (e.g., because the task was confusing). It is consistent with the findings of Tavakoli (2009) in Mahpul (2014:111), that "linguistic demand" is one of the aspects underlying task difficulty. Hence, once again, it appears that the participants' perception about the degree of task difficulty is not due simply to cognitive factors, but rather, is also due to "learner factors".

Besides that, some students indicated that they lacked of confidence (6.6%) and the other students doubted (23.3%) in performing the task. Several participants expressed a lack of confidence about performing the task because they did not feel confident with their skills in English (e.g., I felt not really well in doing the task because I feel my skill in English especially in speaking is not well, so I'm not confident in performing the task).

Participants' lack of confidence due to language problems is consistent with the study by Tavakoli (2009) in Mahpul (2014:121) who found that linguistic demand is considered to be one of the aspects that leads to more difficulty in performing tasks which may then lead the participants to feel less confident when performing the tasks.

These findings support Robinson's (2001b: 31) argument that complexity and difficulty do not always have a fixed relationship to each other for two reasons. First, this is as "a result of inherent ability differentials between learners, that is, differences in the limits of the attentional, memory, and reasoning resource pools". Second, the learners" "inherent ability differentials can also be affected by such temporally limiting factors as motivation".

In short, the participants' problems in performing the task is not only because of the level of task difficulty (cognitive factors), but also because of the other factors such as learner factors (i.e., learner affective, interactive factors and problem with language).

CONCLUSIONS

Considering all the data gathered after finishing the research which was conducted in SMPN 21 Bandar Lampung, some conclusions were taken as follows:

The simple task complexity with manipulating task complexity along with two dimensions resource-directing (+few elements, +here and now, +no reasoning demands) and resource-depleting (+planning time, +single task, +prior knowledge) can be used to increase the students' complexity (syntactic and lexical complexity) and fluency on students' spoken performance.

Besides, the complex task complexity with manipulating task complexity along two dimensions resource-directing (-few elements, -here and now, -reasoning demands)

and resource-depleting (-planning time, -single task, -prior knowledge) can be used to increase the students' accuracy and complexity but decreased the fluency on students' spoken performance.

The students had problems in performing the task not only because of the level of task complexity (cognitive factors), but also because of the other factors such as task difficulty (learner factors).

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