DESIGNING TASK COMPLEXITY ON THE QUANTITY OF INTERACTION AND NEGOTIATION OF MEANING

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Abstract: The purpose of this study is to find out whether or not different types of task complexity produce quantity of interaction and to find out whether or not different types of task complexity produce negotiation of meaning. One group repeated measures design was carried out in this research. The subjects of the research were 30 students of IAIN Raden Intan Lampung. The researcher used speaking test as the instruments of this research. The speaking test contained of simple and complex of task complexity which had been distributed to the students. The result of analysis shows that there is a statistically significant differences between types of task complexity and the quantity of interaction. The significant differences were analyzed in terms of students' interaction quantity; they are length time, turns taken and the number of c- unit. Furthermore, the task which was specifically designed on the basis of prior knowledge and planning triggered the students to produce the most negotiation of meaning.

***Keywords**: Negotiation of meaning, quantity of interaction, task complexity.*

Abstrak: Tujuan dari penelitian ini adalah untuk mengetahui apakah ada atau tidak perbedaan dari tipe kompleksitas tugas yang dapat menghasilkan kuantitas dari berbicara dan untuk mencari apakah ada atau tidak perbedaan dari tipe tugas kompleksitas yang dapat menghasilkan negosiasi makna. Satu kelompok mengulangi tindakan perancangan yang dilakukan dalam penelitian ini. Subjek penelitian adalah 30 siswa IAIN Raden Intan Lampung. Peneliti menggunakan tugas berbicara sebagai alat ukur dalam penelitian. Hasil analisis menunjukkan bahwa terdapat perbedaan yang signifikan secara statistik antara jenis kompleksitas tugas dan kuantitas interaksi. Perbedaan signifikan dianalisis dalam hal kuantitas interaksi siswa; jumlah berbicara, giliran berbicara dan jumlah c-unit. Selanjutnya, tugas yang dirancang khusus berdasarkan pengetahuan dan perencanaan sebelumnya memicu siswa untuk menghasilkan negosiasi arti yang paling banyak.

***Kata Kunci:** Kompleksitas tugas, kuantitas interaksi, negosiasi makna.*

INTRODUCTION

Task based instruction or known as Task Based Language Teaching (TBL) also provides learners with opportunities for interaction that enable learners to work to understand each other, and express their own meaning, and listen to language which may be beyond their present ability (Prabu, 1987; Larsen and Freeman, 2000 in Mahpul, 2014:11). There have been many investigations concerning the usage about Task-Based Language Teaching. Most of them are focused on trying out the Cognition Hypothesis proposed by Robinson. In the hypothesis, Robinson (2015:5) suggests that tasks be sequenced from simple to complex for learners. Tasks can also be manipulated for different empirical purposes and to test different theoretical constructs in both classroom and experimental settings. Robinson (2003: 57) suggests that task complexity also makes a distinction between two categories of the dimension of task complexity, *resource directing* and *resource dispersing* dimensions.

The next areas of consideration in task based research are the need for the input and interaction. Theories of L2 acquisition acknowledge the importance of input and interaction but they differ in the extent to which they emphasize the role of input and interaction or combination of both. Gass, Mackey, and Pica (1998) in Mohhamadi (2015:95) summarize a number of studies that have shown interactional modifications through negotiation for meaning can have a positive effect on the quality of learners' immediate production. It is claimed that in task- based instruction because of negotiation of meaning and being in interaction, learners will develop language proficiency. Tasks, which stimulate negotiation and through that provide comprehensible input and feedback, and push learners to reformulate their language, are the ones that will work best for acquisition. Therefore, it seems that exploring the tasks that promote more units of negotiation of meaning is highly significant.

Negotiation of meaning is defined as the instances in which interlocutors in a conversation face a problem in understanding and they engage in a reciprocal work to solve the comprehension problem or to stop the flow of the conversation to check whether their interlocutor is following the flow of the conversation through interactional modification including comprehension checks, clarification requests, confirmation checks and recast (Ellis, 2003; Ellis & Barkhuizen, 2005; Ellis, 1994; Oliver, 2002; Oliver, 1998; Pica, Young, and Doughty, 1987; Gass & Polio, 1998;) in Mohammadi (2015:96). According to Pica et al (1989) and Pica et al (1991) in Yufrizal (2007:71) there are four components in negotiation of meaning:
(1) Trigger: Trigger is the utterance that contains elements that create communication breakdown. (2) Signals: This component refers to an indicator from a listener that understanding is not complete. (3) Response: It refers to a speaker's attempt to clear up what the listener has said (unaccepted input). (4) Follow-up: It refers to information about whether the communication modifications have been successful or not.

Example :
A: I think it's uh mosque (Trigger)
B: mosque? (Signal)
A: yeah (Response)
B: wait a minute I try to wrote it (follow-up).

Furthermore, the quatity of interaction is mesured by three elements, namely the length of speaking time, the number of turns taken, and the number of c-units.
(a) The length of speaking time: When the students like to do their speaking task, they will have opportunity to decide when they

should start the conversation, and of course it will be based on their own readiness. (b) The Number of Turn Taken: The number of turns taken will be calculated based on the amount of turns a speaker produced when the student interacts with another student. (c) The number of C-Unit: c- units are utterances produced by any individual which are meaningful though not necessarily complete.

There are some researchers who have done a research in task complexity and negotiation of meaning (Marije et, all) conducted a research on an oral interactive task entitle "Task Complexity and interaction: (combined) effects on task based performance in Dutch as a second language". Besides that, Madarsara and Rahimy (2015:252) entitled examining the effect of task complexity and sequence on speaking ability of Iranian EFL learners. Furthermore, Azizi, Asoudeh amd Ali (2012:1) entitled "The Role of Task Complexity on EFL Learners' Oral Production in English Language Institutions". Different from the previous studies the purpose of this study are to find out whether or not different types of task complexity produce quantity of interaction and to find out whether or not different types of task complexity produce negotiation of meaning.

METHOD

One group repeated measures design has been carried out in this research. The total population was 156 students which came from English Department of IAIN Raden Intan Lampung. The researcher used 30 students as the sample of this research that has been chosen randomly. 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.

The data sources were taken Task complexity in Robinson which consisted of four types of task there are: Task 1 (prior knowledge and planning), Task 2 (prior knowledge and no planning), Task 3 (no prior knowledge and planning), Task 4 (no prior knowledge and no planning). The teacher also distributed task in class to get the quantity of interaction and negotiation of meaning. After that the researcher recorded it by using recorder and then transcribed into written form in order to make the researcher more easily analyzing the quantity (length time, turn taking, c- unit) and negotiation of meaning. Next the researcher analyzed it by using paired sample T-test. The researcher was also used inter- rater in order to get the quality of students' interaction.

RESULTS AND DISCUSSION

After the teacher taught the students by using tasks which were design based on students interaction in the class. Those tasks consisted of task 1 (prior knowledge and planning), task 2 (prior knowledge and no planning), task 3 (no prior knowledge and planning), task 4 (prior knowledge and no planning). In the end of each tasks, tasks design was done in order to see the quantity and negotiation of students' interaction.

In order to know the student's quantity based on the length time of speaking, the researcher compute it by using descriptive statistical. It is found that communicative speaking task design makes the longest time for students in speaking. While for the significant difference of students' speaking quantity in term of time among four speaking task design; the researcher analyzed it by using statistical paired t- test as this below:

Table 1: Paired Sample Test of Time

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Task_1 - Task_2	-21.367	26.137	4.772	-31.126	-11.607	-4.478	29	.000
Pair 2	Task_1 - Task_3	2.067	18.912	3.453	-4.995	9.128	.599	29	.554
Pair 3	Task_1 - Task_4	10.863	19.443	3.550	3.603	18.123	3.060	29	.005
Pair 4	Task_2 - Task_3	23.433	20.964	3.827	15.605	31.261	6.122	29	.000
Pair 5	Task_2 - Task_4	32.230	15.478	2.826	26.450	38.010	11.405	29	.000
Pair 6	Task_3 - Task_4	8.797	17.723	3.236	2.179	15.415	2.719	29	.011

It can be seen that from six tasks which was given to the students there were five tasks design which have significant difference on students' interaction in term of time. It can be concluded since $p<0.05$. Then in order to know the students interaction in term of turn taking the researcher analyzed it by using descriptive statistical and it is found that Task 2 (prior knowledge and no planning) give have more turn in students interaction.

After that the researcher computed the paired simple t test in order to see the significant difference of students' interaction in term of turn taking among four speaking tasks design as in this below:

Table 2: Paired Sample Test of Turn Taking

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Task_1 - Task_2	-1.700	2.996	.547	-2.819	-.581	-3.108	29	.004
Pair 2	Task_1 - Task_3	1.200	1.937	.354	.477	1.923	3.393	29	.002
Pair 3	Task_1 - Task_4	1.933	3.443	.629	.648	3.219	3.075	29	.005
Pair 4	Task_2 - Task_3	2.900	3.044	.556	1.763	4.037	5.218	29	.000
Pair 5	Task_2 - Task_4	3.633	2.341	.427	2.759	4.508	8.500	29	.000
Pair 6	Task_3 - Task_4	.733	2.864	.523	-.336	1.803	1.402	29	.171

From the table above it can be inferred that from those task design, there were five tasks which have significant difference on students interaction in term of turn taking. In order to know the students interaction in term of c-unit the researcher compute it by using descriptive statistical and it is found that task 2 make the students produce more c-unit. In order to know the significant difference the researcher analyzed it by using paired t test statistical as in this below:

Table: 3 The Paired Sample Test of C-Unit

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Task_1 - Task_2	-2.167	5.207	.951	-4.111	-.222	-2.279	29	.030
Pair 2	Task_1 - Task_3	1.033	3.000	.548	-.087	2.153	1.887	29	.069
Pair 3	Task_1 - Task_4	2.300	5.052	.922	.413	4.187	2.493	29	.019
Pair 4	Task_2 - Task_3	3.200	4.483	.818	1.526	4.874	3.910	29	.001
Pair 5	Task_2 - Task_4	4.467	3.115	.569	3.303	5.630	7.853	29	.000
Pair 6	Task_3 - Task_4	1.267	4.051	.740	-.246	2.779	1.713	29	.097

From the table above it can be inferred that four tasks which have significant difference of students interaction in terms of c-unit. The quantity of interaction in term of length time, turns taken and c-unit. It can be seen from the value of F count in statistical analysis of students speaking quantity which shows the significant level $p<0.05$.

In length time of speaking there are four tasks which have significant difference on students' interaction in term of time. They are: Task 1 (prior knowledge and planning) with Task 2 (prior knowledge and no planning), Task 1 (prior knowledge and planning) with Task 4 (no prior knowledge and no planning), Task 2 (prior knowledge and no planning) with Task 3 (no prior knowledge and planning) and Task 2 (prior knowledge and no planning) with Task 4 (no prior knowledge and no planning).

While in the number of turns taken, there are five tasks which have significant difference on studnts' interaction. They are: Task 1 (prior knowledge and planning) with Task 2 (prior knowledge and no planning), Task 1(prior knowledge and planning) with Task 3 (no prior knowledge and planning), Task 1 (prior knowledge and planning) with Task 4 (no prior knowledge and no planning), Task 2 (prior knowledge and no planning) with Task 3 (no prior knowledge and planning) and Task 2 (prior knowledge and no planning) with Task 4 (no prior knowledge and no planning).

Finally in the c-unit term, there are two tasks which have significant difference on students' interaction. They are: Task 2 (prior knowledge and no planning) with Task 3 (no prior knowledge and planning) and Task 2 (prior knowledge and no planning) with Task 4 (no prior knowledge and no planning).

Based on the students' interaction in this research, the researcher also found that discussion group and information exchange task design for Task 2 (prior knowledge and no planning) make the students have longest time in their interaction. It can be seen from the means score of those task designs which have greatest number compared to nother types of task (see table 1), and Task 2 (prior knowledge and no planning) makes the students have more turn and also produce more c-unit in their interaction compared to nother types of task (see table 3 and 5). Even, there is a significant different types of task on quantity of interaction. It can be seen from the F count for students' interaction which can be categorized into significant category since p is < 0.05. It means that the different types of task complexity produce quantity of interaction and negotiation of meaning. It might be caused by the result of students' interaction measures which vary according to a great variety of factors, such as tasks, real time processing, and other individual variables. This finding is in line with Savile-Troike (2006) who state that Quantity and quality of L2 input and interaction are determined by social experience, and both have significant influence on ultimate succes in L2 learning.

This finding is in line Yufrizal (2008) in Rahayu (2016:65), that there will be more C-Units or more meaningful unit of utterances in an activity which contains more negotiation of meaning. Since Task 2 (prior knowledge and planning) produce more C-Units. Consequently, the interaction tasks that was designed by the researcher compatible with the characteristic of students. For example Task 2 (prior knowledge and no planning) students preferred to learn by exploring and performing task in learning and increase quantity of interaction.

In order to know the students in negotiation of meaning the researcher compute it by using descriptive statistical and it is

Table: 4 The Paired Sample Test of Negotiation of Meaning

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	Task_1 - Task_2	-.533	2.543	.464	-1.483	.416	-1.149	29	.260
Pair 2	Task_1 - Task_3	1.733	2.227	.407	.902	2.565	4.262	29	.000
Pair 3	Task_1 - Task_4	1.833	2.276	.415	.984	2.683	4.413	29	.000
Pair 4	Task_2 - Task_3	2.267	2.504	.457	1.332	3.202	4.958	29	.000
Pair 5	Task_2 - Task_4	2.367	2.157	.394	1.561	3.172	6.009	29	.000
Pair 6	Task_3 - Task_4	.100	.885	.162	-.230	.430	.619	29	.541

From the table above it can be inferred that from those task design, there were four tasks which have significant difference on students interaction in negotiation of meaning. From the result confirms the research conducted by Alemi and Ebadi (2010:7) stated that the students need to activate prior knowledge of the topic before they begin to read, if students do not have sufficient prior knowledge, they should be given at least minimal background information from which to interpret the text. It means that before studets' in interaction the teacher needs explain the material to activate the students' interaction. In this research the researcher found that most of students used negotiation of meaning. It is very useful especially for non EFL students. It can increase the sustainability of the conversation and open more opportunities for participants to provide comprehensible input and produce more comprehensible output.

In this research, students' interaction in negotiation of meaning is found to produce

more negotiation of meaning in Task 2 (prior knowledge and no planning). As the mean computed for the Task 2 (Prior knowledge and no planning) are 2.70 with standard deviation 2.437. As previously stated that negotiation of meaning is a process when two or more participants in oral communication work together to avoid communication breakdown. This result is in line with Zhao and Zhu (2012: 114) one of the best methods that can activate students' background knowledge and arouse their interest and curiosity. Furthermore the students' interaction in negotiation of meaning It can increase the sustainability of the conversation and open more opportunities for participants to provide comprehensible input and produce more comprehensible output. Based on the theory if there is prior knowledge than there have not negotiation of meaning in students interaction but in fact my research contradicted with the theory it could happen because Task 2 (Prior Knowledge and no planning) produce more negotiation of meaning because my subject was basic level of students as we know the ability of basic level students is still low and the students' have schemata and have many time to talk more theme in Task 2 (prior knowledge and no planning).

CONCLUSIONS

Considering all the data gathered after finishing the research which was conducted in IAIN Raden Intan Lampung, some conclusions were taken as follows:

The simple task complexity with manipulating task complexity along with one dimension resource depleting (prior knowledge and no planning) can be used increase quantity of interaction and students learn more easily and get better understanding when they are taught by using tasks.

The students did not employ follow up in negotiation of meaning because the limitation topics in task design. Even so, all types of components for negotiation have been applied in their interaction.

Based on the result of the research and conclusion stated previously, the researcher would like to propose some suggestions as follows:

For the English teacher are suggested to give information to the owners of the task about the content of the task in order to anticipate that the students forget. It is because the ability of each student in remembering is different.

For further research, it is better for them to design the task by manipulating not only resource directing dimension but also resource depleting dimension. There will be such a complex combination between all variables of resource directing and resource depleting in one task. Some researchers who concern to the task complexity and negotiation of meaning just focus on interaction.

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