

The Effectiveness of the Improvised Sociogram Model in the Heterogeneous Classroom in Improving Interaction among the Primary School Learners in the English Language Lesson

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Abstract:- Improvised sociogram model was introduced as one of the grouping strategies in this experimental research in measuring its effectiveness in improving the interaction in the heterogeneous classroom of primary school learners in the English language lesson. Three research questions were drawn from this aim to look for the patterns of classroom grouping strategies used by the teachers, the significant effect of the improvised sociogram model in improving the learners' interaction using the target language and also the potential of this model to be used in the future teaching practice. The research samples were selected from a group of 33 year 5 learners in one of the schools in Johor, Malaysia and also the teacher who directly involved in the lesson. The finding from the questionnaire showed that the teacher initially used random grouping strategies to the learners. At the same time, the result also showed that improvised sociogram model significantly impacted the learners. The correlation result also proved that this model has significant potential to be used in the teaching practice. Having this sociogram model in the classroom practice could benefit both teachers and learners especially in improving the interaction in the language lesson.

Keywords:- heterogeneous, sociogram, group task, group dynamic, interaction, group size.

I. INTRODUCTION

Ministry of Education Malaysia (MoE) in recent years, 2013 to 2019 is giving much emphasis in the 21st century learning. Collaborative learning is one of the indicators in viewing how 21st century learning should be conducted (McCoog, 2008). The collaborative learning among the learners could be viewed on how they get interacted with one another during their teaching and learning experiences. One of the pedagogical approaches teachers should conduct in the classroom is groupwork that adopts various grouping strategies. A sociogram model was introduced to study the relationship of the learners' seating arrangement and the interaction level occur during the lesson.

A. Interaction in English as Second Language (ESL) classroom

Interaction in ESL classroom has become the central element in the communicative language teaching (Consolo, 2006). It is normally associated with the cognitive development of the learners and their sociocultural background. According to Thoms (2012), the interaction in the classroom could be summarised from the way the learners associate their sociocultural background that could trigger more connection and engagement from one person to the other. This is because the learners who have common background in terms of their social will encourage more participation as the dictions they consume are parallel and more apprehensible by the others. Seedhouse & Jenks (2015) described this common factor among the learners as the input where they have the existing knowledge system that could allow more interaction to occur.

B. Grouping strategies as the tools to promote interaction

There were many studies conducted by scholars to prove that grouping strategies might be fundamental strategy to be conducted in English classroom to promote more interaction. Brown (2001) greatly claimed that grouping strategies would be significant to be executed in any ESL classroom regardless of the learners' level ranging from primary even to tertiary level. Barkley et.al. (2005) on ESL learners found that by implementing grouping strategies prior to any English lesson had positively impacted on the learners' interaction especially when they combined their intellectual effort in accomplishing the task given by the teacher. Many teachers in ESL classrooms have proactively imitated and adapted some significant ideologies of grouping strategies by scholars into their classroom. For instance, the study conducted by Yunus et.al. (2013) found that many Malaysian English teachers preferred to consider the learners' group composition before conducting their lessons. They would normally consider the learners' academic performance from their English papers and also their competency level in the target language in placing them with the correct group members. This could be linked to the previous claim on the learners' motivation level mentioned by Brown (2001) as the impact of the implemented grouping strategies.

C. *Mixed-ability classroom in Malaysian context*

Starting 2013, the Ministry of Education Malaysia introduced the Malaysia Education Blueprint 2013-2025 with the aim to demolish this streaming culture by promoting more mixed-ability classrooms through its 21st century learning strategy. Through this ideology, it is expected that all Malaysian schools should reform its schools' environment from streaming to the mixed-ability classroom. This means there should be a variety of learners in the classrooms based on their academic performance. The advanced, moderate and low level learners should be placed in one class together to achieve the mission. In Malaysian schools' environment under the aspiration stated in the blueprint, the learners are anticipated in the 21st century learning atmosphere where physical and motivational aspect of the classrooms are taken into consideration. It is aimed by having mixed-ability classroom, learners will find their learning more contented that supports their intrinsic motivational factor in learning.

D. *Sociogram as the Grouping Strategies*

According to Harmer (2007), group task serves more advantages particularly to increase the number of talking opportunities for individual learners. For the purpose of this research, the group interaction especially in using English language can be encouraged through the effective grouping strategy. Leung and Silberling (2006) have carried out a research on how peer relationship impacts on student motivation and performance. They adapted a strategy developed by Moreno in 1934 to identify this relationship pattern in the classroom using a mechanism so-called sociogram. In brief, they claimed sociogram can be used to analyze leaders, social rankings, and isolated individuals in the classroom. The data for the sociogram can be displayed as a table or matrix of each person's choice. Besides considering the relationship status among the learners, the researchers added up another one factor which was the academic performance of the learners to ensure in the groupings consist of the learners ranging from the lower to the higher proficiency level. By having such data, the researcher can identify the patterns of the relationship among the learners as well their academic performance in the English subject which affect the division of the groupings. The patterns of relationship include popular, neglected, controversial and rejected type of learners. Thus, the dynamic among the learners can be nurtured through this strategy especially with aims to see how well these they are fitting in with the rest of the class and eventually it could result to the active interaction among the mixed-abilities level of learners during the English lesson.

E. *Group Size in Grouping Strategies*

Group size also becomes another important aspect in implementing the grouping-related activity. Brown (2001) suggested that small group size of six or fewer than the number will be appropriate for the group task. This is in line to his concept of group dynamics. He further explained that larger number of members in a group will affect the interaction among them in a sense of opportunity for individuals to play their roles as the member of the group. To the researcher's interpretation, small number of members in a group is a practical size for group task in making sure

everybody is participating and contributing ideas in the discussion and eventually the learners can develop their language skills.

Though size of group shows great result in grouping implementation, there are some evidences from other studies proved that composition of group pays similar importance (Web, Baxter and Thompson, 1997). Blatchford et.al (2003) mentioned that the sizes of the groups need to be appropriate to the age and experience of pupils, the purpose of group task and the task at hand. Thus, this proved that the aspect of group size can't stand on its own; it should be considered with other strategies to make the grouping strategies more effective. To narrow down the criterion of having heterogeneous group members, the researcher would refer to Barbara's (1999) interpretation on group diversity. She implied that an ideal group should be diverse with a range of intellectual ability, academic interests and cognitive style. The researcher believed by having different abilities of learners in a group, they could complement one another especially when language fluency aspect is concerned.

F. *The significance of grouping strategies*

Primary school level applied grouping strategies for the organisational purpose (William and Bartholomew, 2004). The learners would be simply seated in groups in round table arrangement without any specific requirement or strategies implemented. Therefore, this would make the observations on the learners to be difficult to be assessed by the teachers. This is because the grouping strategies are not treated as one of the focus to achieve the teaching and learning process. Certainly, this might eventually reflect to the issues addressed by many teachers who are having problems such as classroom control, ineffective lesson, and less interaction in the heterogeneous classroom.

G. *Integration of 21st century learning in the grouping strategies*

Based on the literature discussed, the dominant references used in this research were the model of sociogram suggested by Leung and Silberling (2006) and also the group size model proposed by Brown (2001). As mentioned earlier, the study conducted from both research were meant to observe the interaction level among the learners as the effect of the grouping strategies based on the relationship status among the learners as well as the group size practised during the lesson. However, the models were not purposely designed on the basis of the current needs of the 21st century learning. Some of the key elements of 21st century learning were not given emphasis by the researchers for instance, the level of the learners' academic performance in matching them in the group. In addition, the studies conducted in the previous were not focusing on the interaction level of the learners in English lesson, in fact it was been discussed in general setting of the classroom. Therefore, this could be the gap that the researcher tried to explore further by adapting the models proposed in this research by adding another feature of the learners' academic performance in the grouping strategies to observe their effectiveness in the learners' interaction during the English lesson.

II. RESEARCH AIM AND METHODOLOGY

In this study, the researcher used mixed method of research in identifying the effectiveness of the improvised sociogram model on the interaction level among primary school learners in English lesson. Quasi-experimental research design was selected to conduct this study. Ross and Morrison (2001) referred quasi-experimental research design with the involvement of the treatment and how it affected the environment and the atmosphere of the studied area. The data obtained would be further analysed under mixed method where the researcher would measure the effectiveness of the treatment through the observation made, the interview conducted with the teacher and the questionnaire given to the learners. This study involved 33 participants of Year 5 primary school pupils from one of the schools in Pasir Gudang district. Purposeful and convenience sampling was employed to identify the participants since the researcher was coming from the similar district. There was a class involved in this research which was 5 Sahsiah. The samples will be analysed by the researcher according two time intervals; before and after the intervention. The comparison made would be the valid measurement to see the effectiveness of the grouping strategies applied in the heterogeneous classroom in improving the learners' interaction.

There were three main instruments used in this study: the observation checklist, interview and also the questionnaire. The checklist used in this study was adapted from the observation checklist of seating chart designed by a psychologist, Farrell (2007). The adapted observation checklist allows the researcher to code the number of times the learners interact with one another. In the original seating chart, the observation made was based on the occurrences of questioning and answering activity between the teacher and the learners. However, the researcher has replicated this instrument aligned to the research questions in finding the level of interaction among the learners. The adapted observation checklist has been appended in Appendix A. The questionnaire in this study was an adaptation from the questionnaire developed by Fresher et al. (1995) where the questionnaire was used to measure the interaction in the classroom. For this study, the researcher has made an adaptation so that the questions developed in the questionnaire (Appendix B) could answer the research

questions especially in obtaining the learners' feedback of the grouping strategies implemented. On the other hand, it was also crucial to get the teachers' feedback on the implementation of the grouping strategies in the English lesson. Certainly, the interview will be conducted on the teacher involved with the experiment. Their feedbacks would be the strong evidence to measure the effectiveness of the implemented improvised sociogram grouping strategy. The interview session would be conducted in semi-structured method so that it would allow the researcher to obtain an in-depth account of experiences and perceptions from the teacher (Cousin, 2009).

After obtaining approval from the school, the researcher started to collect some information to conduct the grouping strategies. This include selecting the samples from two different classes of year 5 learners. The researcher would ensure these two classes were practicing heterogeneous classes but without any intervention of grouping strategies. In other words, at this stage, the learners were randomly arranged in groups without any grouping strategies. The next step, the researcher selected one of the classes to conduct a quick survey to prepare for the sociogram matrix. Here, the samples would write a name of a friend that they preferred to work with. At the same time, the researcher would gather the data of the samples' recent English examination result to be made as one of the criteria for the sociogram matrix. The learners' English result was illustrated in Appendix C. Again, the researcher did not reveal the learners' actual name to maintain its confidentiality.

Once obtained the survey and the samples' examination result, the researcher started to do the matching of the sociogram matrix. In this process, the researcher would identify the relationship status among the learners ranging from the most popular, rejected, controversial and also neglected based on the discussion made in the conceptual framework. At the same time, the learners would be labelled as high achievers, moderate and low achievers based on their examination result. High achievers would be the learners who scored A in the examination, moderate were those who scored B and C, and low achievers were the learners who scored D and E in their examination. The labelling process in the sociogram matrix was displayed in the Figure 1.

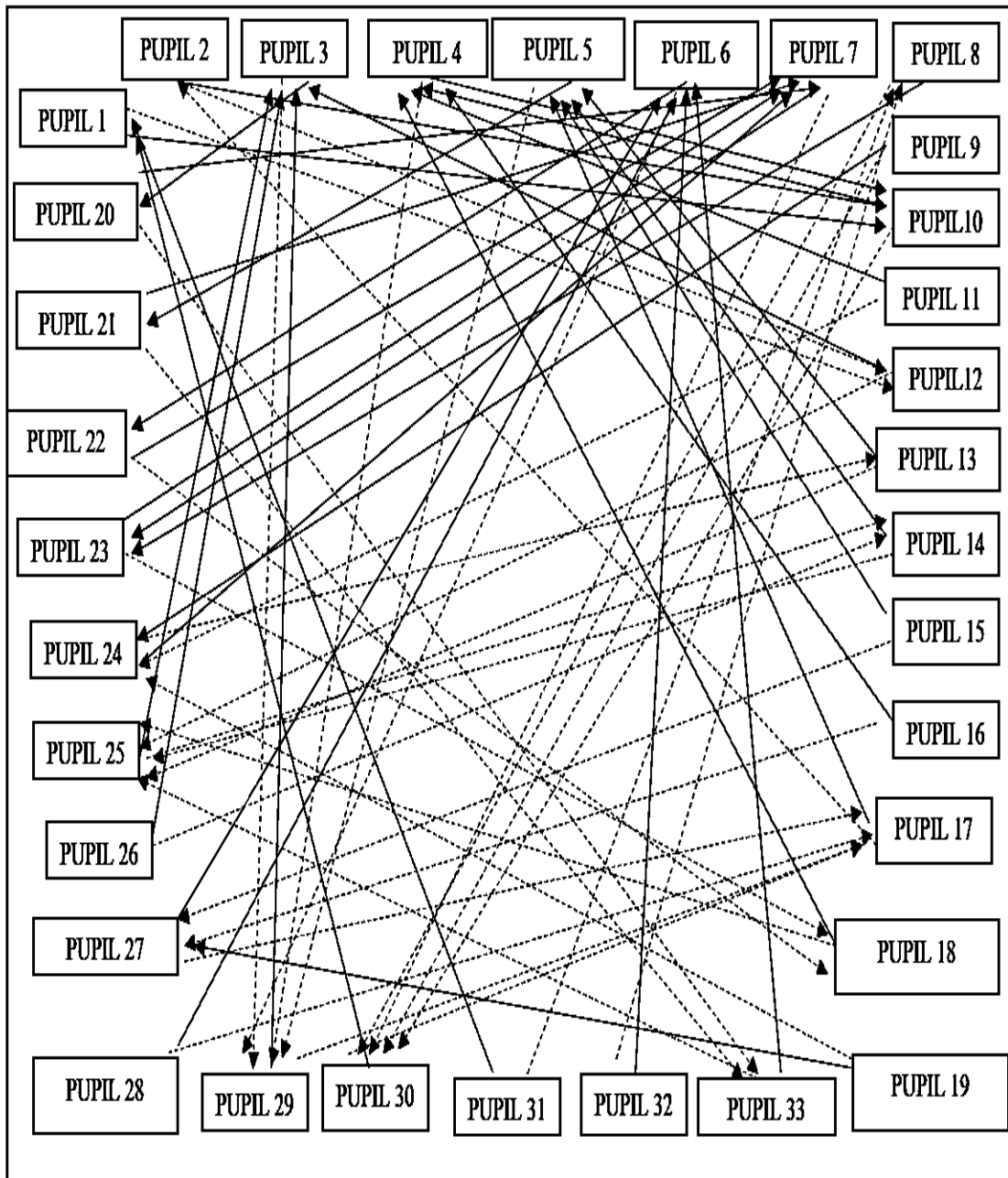


Fig. 1: Sociogram that represents the social interaction among the pupils of 5 Sahsiah.

the solid lines indicate the choice made by the pupils of friends who they preferred while the dotted lines indicate the choice by the pupils of friends who they were not preferred. By having the sketch of this sociogram matrix, the researcher would be able to observe clearly the pattern of relationship among the learners. In the matrix, 'pupil X' was

the label used to represent the learners. This data would be significant for the researcher to match the learners for the groupings. Certainly, the researcher would try not to include the rejected learners among the friends who refused to work with them. The detailed sociogram results are shown in Table 1.

	Name	Gender	Acceptance	Rejection	Total Points	Possible status
1.	PUPIL 1	L	2	0	2	Popular
2.	PUPIL 2	L	0	2	-2	Rejected
3.	PUPIL 3	L	4	0	4	Popular
4.	PUPIL 4	P	4	0	4	Popular
5.	PUPIL 5	P	4	0	4	Popular
6.	PUPIL 6	P	4	0	4	Popular
7.	PUPIL 7	L	5	0	5	Popular
8.	PUPIL 8	P	0	2	-2	Rejected
9.	PUPIL 9	P	0	0	0	Controversial
10.	PUPIL 10	P	3	0	3	Popular
11.	PUPIL 11	P	0	0	0	Controversial
12.	PUPIL 12	P	0	2	-2	Rejected
13.	PUPIL 13	P	0	1	-1	Rejected
14.	PUPIL 14	P	0	2	-2	Rejected
15.	PUPIL 15	P	0	0	0	Controversial
16.	PUPIL 16	P	0	0	0	Controversial
17.	PUPIL 17	P	0	3	-3	Rejected
18.	PUPIL 18	P	0	2	-2	Rejected
19.	PUPIL 19	P	0	0	0	Controversial
20.	PUPIL 20	P	1	0	1	Popular
21.	PUPIL 21	P	1	0	1	Popular
22.	PUPIL 22	P	1	0	1	Popular
23.	PUPIL 23	L	2	0	2	Popular
24.	PUPIL 24	L	1	2	-1	Rejected
25.	PUPIL 25	L	0	5	-5	Rejected
26.	PUPIL 26	L	0	0	0	Controversial
27.	PUPIL 27	P	1	2	-1	Rejected
28.	PUPIL 28	P	0	0	0	Controversial
29.	PUPIL 29	L	0	4	-4	Rejected
30.	PUPIL 30	L	0	4	-4	Rejected
31.	PUPIL 31	L	0	0	0	Neglected
32.	PUPIL 32	P	0	0	0	Controversial
33.	PUPIL 33	P	0	2	-2	Rejected

Table 1: Sociogram results

The sociogram matrix done would be the reference for the researcher to design the groupings in the respective classroom. Each group would consist of five to six members as suggested by Brown (2001). Then, the researcher would ensure in a group would consist of mixture of abilities and also variety of relationship status. For instance, there must be members ranging from popular to the rejected status and also high to low achievers. This was to balance the differences in the group. An ineffective group would consist of rejected members with the other rejected members or most of the group members dominated by the low achievers. Therefore, the use of the sociogram matrix would allow the researcher to do an extra effort in managing the groupings before the lesson started. This intervention should be prolonged for a week and the researcher would collect the data after the period of time. This was to ensure the stability of the treatment given to the target group. After a week, the researcher would begin doing an observation using the observation checklist to identify the level of interaction among the learners. At the same time, the questionnaires were distributed to the learners to get their feedbacks on their experience during the implementation of the grouping strategies. An interview to the English teacher was conducted to get the teachers' perspective on the implemented grouping strategies for their classroom.

III. RESULT AND DISCUSSION

In order to seek answer on how teachers carry out grouping strategies in heterogeneous classroom for the English lesson, the items built in the questionnaire from part B were analysed. In the items built, the participants were given a question stating the grouping strategies used by their teacher in the lesson before the intervention was introduced on them. The question required them to select one of the answer choices reflecting their experience of the grouping strategies applied by their teacher. Since this survey was conducted in the month of March, thus, it was valid to get the actual data where the learning contact of the learners with the teacher had been carried out few months. Certainly, the teacher had conducted few activities in the classroom related to the group work. The researcher here intended of identifying whether the teacher used certain grouping strategies during the group activity. The rational of obtaining the feedbacks from the learners but not the teacher was because the researcher would like to get an authentic and honest responses from the participants. The learners supposedly should be aware and experience the learning session with their teacher. Therefore, they would be able to tell and recall if there was any strategy applied by their teacher during the group activity. The researcher analysed the data obtained in the form of frequency and percentage

based on the responses given by the learners. The details of the findings are presented in the Table 2.

		Frequency	Percent	Valid Percent	Cumulative percent
Valid	Count system	5	15.2	15.2	15.2
	Students choice	20	60.6	60.6	75.8
	None	8	24.2	24.2	100.0
Total		33	100.0	100.0	

Table 2: The group strategies used by the teacher

Based on Table 2, 60.6% of the learners agreed that the teacher would mostly let them to sit by their own choice when conducting the group activity. There would be certain lessons the teacher would execute the group activity using the count system where 15.2% of them agreed on this. This means during the lesson, the teacher would group the learners following the numbering system the learners mentioned; for instance, the learners with number 1 would sit in the same group. On the other hand, 24.2% of the learners claimed that the teacher never used any strategies in the classroom. Nevertheless, none of the learners stated that the teacher had grouped them according to their ability during the lesson.

In answering the research question on the effectiveness of the improvised sociogram model in the heterogeneous

classroom in improving interaction among the primary school learners in the English language lesson, the researcher measured the obtained data from the observation checklist, the questionnaire and also the interview conducted on the respective teacher. The first analysis made reflected on the significant difference of implemented improvised sociogram model before and after the intervention from the observation checklist. The analysis on the observation checklist done by the researcher reflected the level of the interaction before and after the intervention. In the observation checklist, the interaction was defined as the number of responses and questions prompted by the learners during the lesson. The detailed of the observation checklist was illustrated in Table 3.

Pupils	Before Intervention		After Intervention	
	Number of Prompting Question	Number of Prompting Answer	Number of Prompting Question	Number of Prompting Answer
PUPIL 1	4	5	10	17
PUPIL 2	4	5	11	14
PUPIL 3	5	6	14	15
PUPIL 4	5	5	15	14
PUPIL 5	6	4	10	12
PUPIL 6	4	5	14	14
PUPIL 7	5	6	12	14
PUPIL 8	4	7	20	15
PUPIL 9	4	7	9	17
PUPIL 10	2	5	8	12
PUPIL 11	5	5	4	11
PUPIL 12	4	5	6	9
PUPIL 13	6	4	7	8
PUPIL 14	5	5	8	7
PUPIL 15	4	5	4	4
PUPIL 16	3	5	8	14
PUPIL 17	4	4	8	18
PUPIL 18	2	6	4	15
PUPIL 19	2	4	8	14
PUPIL 20	1	3	9	16
PUPIL 21	1	2	7	8
PUPIL 22	2	3	5	9
PUPIL 23	1	3	6	6
PUPIL 24	2	1	4	8
PUPIL 25	2	3	6	7
PUPIL 26	3	3	4	6
PUPIL 27	2	3	4	8
PUPIL 28	1	3	6	8
PUPIL 29	2	3	4	7
PUPIL 30	2	2	5	4
PUPIL 31	1	3	5	7
PUPIL 32	2	3	4	5
PUPIL 33	1	2	4	7

Table 3: The observation checklist summary before and after the intervention

The data in the Table 3 was summarised by summing up the number of questions and answers prompted by the learners before and after the intervention to measure the significant difference of both time intervals. The researcher

decided to use the Wilcoxon test as the alternative test to run the analysis of the data from the observation checklist. Table 4 illustrated the result of analysis made using the Wilcoxon test.

Total of interaction after intervention- total of interaction before intervention	
Z	-4.997 ^b
Asymp.Sig. (2-tailed)	.000

Table 4: The Wilcoxon test result based on the interaction level before and after the intervention from the observation checklist

Table 4 showed the result of asymptotic significant value of 0.0001 which was less than the critical value of $\alpha=0.05$. The result indicated that the significant value was less than the critical value, thus, the researcher failed to accept the null hypothesis. It can be concluded that there was a significant difference on the interaction level of the learners before and after the intervention of the improvised sociogram model and directly implied that the improvised sociogram model was effective in improving the interaction level among the learners in the English lesson.

To support analysis made on both questionnaire and also the observation checklist, the remarks made by the teacher from the interview conducted could be a strong justification to clarify the effectiveness of this improvised sociogram model in the learners' interaction. The teacher claimed that the number of the group size in the improvised sociogram model was relevant to be practised in the lesson. She stated that she saw some positive changes on certain pupils during her lesson:

There are some differences I could say during my lesson. Especially when I saw some boys who happen... not so actively participated before in the classroom, they were responding well during the activity. For example, Aqil who happens to be so quiet in my class, he prompted some questions in English even it was a broken English...but I could tell from his body gestures, he was happy to be in the group. Perhaps the previous group didn't comfortable enough for him to work with the members. [00:15:34]

During the interview as well, she commented on the rational of having smaller group size when conducting the group task especially when classroom control issue is concerned. She pointed out her point of view on this:

...I believe when the number of members in a group is smaller, each one of them will have their own role to play. [00:26:14]

From her response given, it was clearly showed that she was having a positive feedback on the group size during her lesson. She believed that when the group size is smaller, she would be able to monitor the pupils and at the same time, the tasks segregated among group members will be equally distributed. The pupils in a smaller number of members will not encounter any issues of inactive or passive members during the group practice.

In terms of the effectiveness in improving the interaction among the learners, the teacher also claimed she noticed positive changes among the pupils' interaction. She further explained in the interview:

I was surprised when they were few boys who seldom asked me questions in the classroom, they stood and ask me some questions. [00:33:12]

From the remark she made, the improvised sociogram model had positively affected the learners' interaction among themselves as well as their interaction with the teacher. Perhaps, her previous experience in the classroom showing some pupils were not actively engaging with the lesson but it was changed since the intervention was made on them. There were some pupils who were not actively engaging with lesson previously, but they changed after they experienced some changes in their seating arrangement. The claim she made showed that it might be possible for the pupils to be wrongly matched in a group previously.

In answering the third research question where the researcher intended of looking of the future potential of this improvised sociogram model in improving the interaction level in the heterogeneous classroom, Spearman Correlation test was executed to measure the potential strength and direction of the variables. In this case, the variables on the learners' responses from the questionnaire part C before and after the intervention will determine the potential of this model in the future. Table 5 illustrates the correlation between the improvised sociogram and the learners' responses of its future potential in improving the interaction level in the English lesson.

			Total before intervention	Total after intervention
Spearman's rho	Total before intervention	Correlation	1.000	.211
		Coefficient Sig. (2-tailed)	.	.238
		N	33	33
	Total after intervention	Correlation	.211	1.000
		Coefficient Sig. (2-tailed)	.238	.
N		33	33	

Table 5: The Spearman Correlation test on the improvised sociogram model and its potential in improving interaction level in the English lesson

Table 5 showed the correlation coefficient value before and after intervention, $r = 0.211$ which is above the critical value of $\alpha = 0.05$. This indicated that the improvised sociogram model had a strong correlation in improving the learners' interaction in English lesson before and after the intervention. Since the result from the Spearman correlation test is used to measure the potential and the direction of the variables, it could be indicated here that the improvised sociogram model has positive potential to be used in the future.

On the other hand, the remarks made in the interview could strengthen the results from the quantitative data obtained. The teacher suggested that this type of classroom management should be implemented in the English lesson especially when the learning objective is meant to improve the interaction level among the learners. She preferred to have this kind of grouping arrangement in her future lesson:

...As human being, I realise, there are some people who we are comfortable to work with but some are not. Therefore, even though this one sounds not so serious...but it really helps to create positive environment of learning in the classroom.
[00:33:12]

From her statement, it is clearly showing her positive response on this improvised sociogram model. She believed that positive and non-threatening classroom environment should be fostered in the language classroom. The pupils need a comfortable environment for them to exchange the input of this target language. The teacher stated that wrongly paired or matched the pupils into the groups, it will lead to negative results. Therefore, her justification made in the interview supported the quantitative result obtained and thus, make the findings to be valid and reliable.

IV. CONCLUSION

From this research, several conclusions can be drawn about the effectiveness of the implemented improvised sociogram model. The strategy of using sociogram as the grouping strategy allowed the learners to have the feeling of comfort to interact and work together with friends that they preferred. Moreover, the findings showed that the group dynamic among the learners had improved through the sociogram strategy especially in encouraging them to interact more during the group task. On the other hand, failure to recognise this friendship patterns among the learners may give poor result in the learners' interaction level

and also their motivation. Rejection results to great impact in the learners' interaction and motivation because learners who are rejected by their peers are found to have more problematic academic and socioemotional adjustment (Kutnick et al., 2002). The idea to conduct group activities by ignoring such strategy produced less interaction among the learners. However, the situation had been altered once the researcher recognized the social status of the learners in considering the groupings using the improvised sociogram model.

Another conclusion could be drawn from this research was the factor of mixed ability of members could give great contribution in encouraging the learners' interaction within group. By having different abilities of members, it promoted cooperative learning style among them. The learners with good proficiency level in English had indirectly become the supporting peers for the less proficient learners to be more confident in using the language. Cohen et al (2004) suggested that teachers who are promoting homogeneous setting in the classroom may discourage the confidence level of the low proficiency pupils. Nevertheless, the findings proved that this strategy of forming groups with mixed abilities had given the learners equal opportunity in interacting among the group members and this indirectly showed that they were motivated in using the language.

The importance of the small group size when conducting group task could be another conclusion highlighted from this research. Findings had proven that small group size promoted equality within the groups. Equality could be interpreted in the context of equality in delegating works as well as equality in having opportunity to talk. The groups with small number of members would have better chance in giving their views and sharing ideas. Brown (2007) highlighted the issue of group dynamic that could be generated from the small numbers of group members. He suggested that within the small number of members, the learners would have better opportunity to play their roles and eventually the level of interaction could be improved. Thus, the researcher can conclude that by having these considerations as the grouping strategies, it made lesson to be more effective especially in encouraging the learners' interaction.

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Appendix: A
Observation Checklist Chart

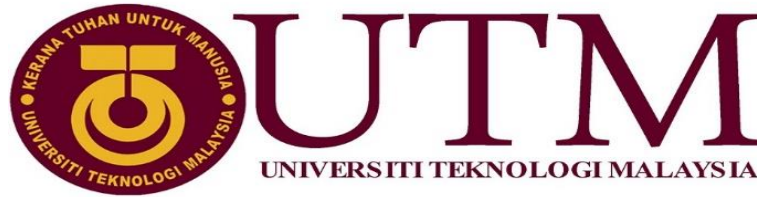
Name of observer: _____

Date of observation: _____

Topic of the lesson: _____

WHITEBOARD					
PUPIL 1	PUPIL 7	PUPIL 2	PUPIL 8	PUPIL 3	PUPIL 9
PUPIL 13	PUPIL 19	PUPIL 14	PUPIL 20	PUPIL 15	PUPIL 21
PUPIL 28		PUPIL 29		PUPIL 30	
PUPIL 4	PUPIL 10	PUPIL 5	PUPIL 11	PUPIL 6	PUPIL 12
PUPIL 16	PUPIL 22	PUPIL 17	PUPIL 23	PUPIL 18	PUPIL 24
PUPIL 25	PUPIL 31	PUPIL 26	PUPIL 32	PUPIL 27	PUPIL 33
<p>Key elements of observation:</p> <p>(✓) Pupils prompt questions in words or sentence level using the target language related to the topic learned.</p>					

Appendix: B



QUESTIONNAIRE FORM

You have been chosen to answer this questionnaire for the research entitled '*The effectiveness of the improvised sociogram model in the heterogeneous classroom in improving the primary school learners' interaction*'. All data collected from this questionnaire will be private and confidential for the use of this study. This questionnaire is aimed to collect data on the implementation of grouping strategy in the classroom, the effectiveness of the improvised sociogram and also the point of view on the potential of using this improvised sociogram in the future.

All information obtained from this questionnaire would always be confidential and meant for the purpose of this research only. Thank you in advance for your cooperation.
Regards,

(MUHAMMAD AZWAN B. BASARUDDIN)
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E-mail: myphd90@gmail.com

PART A: BACKGROUND INFORMATION**Part I: Demography****1. Gender:**

<input type="checkbox"/>	Male
<input type="checkbox"/>	Female

2. Race :

<input type="checkbox"/>	Malay
<input type="checkbox"/>	Chinese
<input type="checkbox"/>	Indian
<input type="checkbox"/>	Others

3. Your first language (mother tongue)

<input type="checkbox"/>	Malay language
<input type="checkbox"/>	Mandarin
<input type="checkbox"/>	Tamil
<input type="checkbox"/>	Others

PART B: IMPLEMENTATION OF ANY GROUPING STRATEGIES

Instruction: Circle ONE of the options below. This is to know the type of grouping strategies used by your teacher in the classroom before the intervention.

4. Which grouping strategies below used by your teacher before the intervention was conducted on you? (choose ONE only)

- A. **Count off system** - The teacher simply places the pupils into groups by numbering system.
- B. **Students' choice** - The teacher allows the pupils to choose their own group members.
- C. **Grouped to mix skill levels-** The teacher ensures the strongest pupils in English to be seated with others.
- D. **None-** The teacher never asks the pupils to sit in groups.

PART C: THE EFFECTIVENESS OF THE IMPROVISED SOCIOGRAM

Please circle relevant number for each question

1 2 3 4 5
 Definitely Disagree Mostly disagree Agree Mostly Agree Definitely Agree

No.	Item	Circle				
BEFORE the intervention:						
1.	The grouping strategies used by my English teacher allowed me to participate well in the discussion. <i>Strategi kelompok yang digunakan oleh guru Bahasa Inggeris saya membenarkan saya untuk mengambil bahagian dengan baik dalam perbincangan.</i>	1	2	3	4	5
2.	I feel comfortable of talking with my friends during the discussion activity. <i>Saya berasa selesa bercakap bersama rakan saya semasa aktiviti perbincangan.</i>	1	2	3	4	5
3.	I was placed correctly with the correct group members. <i>Saya ditempatkan bersama ahli kumpulan yang betul.</i>	1	2	3	4	5
4.	The number of members in the group was suitable. <i>Jumlah ahli di dalam kumpulan adalah sesuai.</i>	1	2	3	4	5
5.	The grouping strategies used allowed me to share my ideas freely. <i>Strategi berkelompok yang digunakan membenarkan saya untuk berkongsi idea saya dengan bebas.</i>	1	2	3	4	5
AFTER the intervention:						
6.	The grouping strategies used by my English teacher allowed me to participate well in the discussion. <i>Strategi kelompok yang digunakan oleh guru Bahasa Inggeris saya membenarkan saya untuk mengambil bahagian dengan baik dalam perbincangan.</i>	1	2	3	4	5
7.	I feel comfortable of talking with my friends during the discussion activity. <i>Saya berasa selesa bercakap bersama rakan saya semasa aktiviti perbincangan.</i>	1	2	3	4	5
8.	I was placed correctly with the correct group members. <i>Saya ditempatkan bersama ahli kumpulan yang betul.</i>	1	2	3	4	5
9.	The number of members in the group was suitable. <i>Jumlah ahli di dalam kumpulan adalah sesuai.</i>	1	2	3	4	5
10.	The grouping strategies used allowed me to share my ideas freely. <i>Strategi berkelompok yang digunakan membenarkan saya untuk berkongsi idea saya dengan bebas.</i>	1	2	3	4	5

Appendix :C**March English Paper 2 Test Score**

No	Name (Coding)	Marks	Grade
1.	PUPIL 1	80	A
2.	PUPIL 2	82	A
3.	PUPIL 3	84	A
4.	PUPIL 4	86	A
5.	PUPIL 5	84	A
6.	PUPIL 6	80	A
7.	PUPIL 7	75	B
8.	PUPIL 8	68	B
9.	PUPIL 9	70	B
10.	PUPIL 10	78	B
11.	PUPIL 11	72	B
12.	PUPIL 12	74	B
13.	PUPIL 13	74	B
14.	PUPIL 14	68	B
15.	PUPIL 15	68	B
16.	PUPIL 16	64	B
17.	PUPIL 17	74	B
18.	PUPIL 18	68	B
19.	PUPIL 19	76	B
20.	PUPIL 20	54	C
21.	PUPIL 21	66	C
22.	PUPIL 22	54	C
23.	PUPIL 23	52	C
24.	PUPIL 24	54	C
25.	PUPIL 25	64	C
26.	PUPIL 26	54	C
27.	PUPIL 27	60	C
28.	PUPIL 28	54	C
29.	PUPIL 291	46	D
30.	PUPIL 30	48	D
31.	PUPIL 31	48	D
32.	PUPIL 32	44	D
33.	PUPIL 33	46	D

SUMMARY

A	B=	C=	D=
=	13	9	5
6			