

The Effectiveness of Simulation Technique Implemented with Poster as Visual Aids on Students' Social Interaction and Creative thinking in EFL Speaking Class

Marina Sari Rambe^{1*}, Abdul Marif²

¹English Education Department, Muslim Nusantara Al Washliyah University, Indonesia

²Civic Education Department, Muslim Nusantara Al Washliyah University, Indonesia

***Corresponding author**

Marina Sari Rambe

Article History

Received: 08.10.2018

Accepted: 18.10.2018

Published: 30.10.2018

DOI:

10.21276/sjhss.2018.3.10.11



Abstract: The purposes of the research were to find out the significances of the implementation of simulation technique and the using of posters as visual aids in improving students' social interaction and creative thinking. Semester II English students of Muslim Nusantara University Medan were selected as the population of the research, then, two classes were chosen of the sample of the research y applying random purposive sampling. Moreover, quantitative research method was used with factorial design 2 X 2 to achieve the aims of the research. based on the data analyzed, this research found out that students' social interaction taught by implementing simulation technique and using the poster was being extremely higher with 80,05 than experimental class II with 68,68. Then, the indicator average of creative thinking also showed a very significant effect in which experimental class II was 86,69, while experimental class II was only 60,75. Moreover, there was an interaction occurred between technique simulation with the poster with student's creative thinking toward students' social interaction with $F_{observed} > F_{table}$ with $294,740 > 4,00$ and $Sig < 0,05$ with $0,000 < 0,05$, and with $F_{observed} 189,190 > F_{table} 4,00$ and with $Sig 0,000 < 0,05$. Last, there was an interaction between simulation technique and poster in which simulation technique was being much more effective combined with poster as visual aids with $sig < prob (0,000 < 0,05)$. In conclusion, students whose higher creative thinking in creating the poster would have higher social interaction in EFL speaking class in which the more frequent student' social interaction in the classroom, the higher speaking skill achieved.

Keywords: Simulation technique, Posters, Social Interaction, Creative Thinking.

INTRODUCTION

According to Indonesia enactment no 24 year 2009 in Article 43 Act 1 discussed about the flag, the language, the symbol, and the national anthem of Indonesia mentioned that "Indonesian government facilitates all Indonesian who wants to have foreign language skills in order to enrich global competition". This statement clearly shows that Indonesian government ease all Indonesian to learn all foreign languages needed by Indonesian in order to meet the global competition. Specifically, English that have been existing as a mean of communication for all aspects, such as; education, business, technology, and marketing in Indonesia is one of the most influencing foreing language used by Indonesian. For instance, Indonesian are quite familiar with some English phrases, such as; what are you doing ?, where do you live?, or thank you, see you again, and so on. In other words, Being able to speak English actively is hugely essential for EFL students in Indonesia since the fast changing of digital era demands EFL students to have a qualified speaking skill that can be applied either for themselves or for teaching others.

To achieve this seems to be a bit hard sincethe real fact shows that EFL students in Muslim Nusantara University Alwashliyah Indonesia still have many difficulties to speak English interactively that it can be showed from the observation conducted during previous speaking class that the students' speaking ability is divided into three categories; there are 40% students with middle speaking ability, there are 20% students with middle speaking ability, and there are 40% students with high speaking ability. It proves that most students still have under average speaking ability so that they have to increase their speaking skill in order to be able to communicate with others actively. Normally, speaking English actively can be trained through social interaction since it is believed that social interaction among students in EFL classroom is one of effective way to practice English naturally, besides, the students also have the opportunities to talk with others during classroom activities. However, EFL studenst in Muslim Nusantara University Alwashliyah seem so comfortable to speak with other in English as long as the class presentation, still, they prefer to use Bahasa Indonesia if the lecture is over.

Related to this matter, the researcher consider the social interaction in EFL classroom will be effective to improve students' speaking skill. According to Nisa [1] argued that social interaction is communication occurred among others in which giving and responding the messages and it take place anywhere and anytime including the interaction occurred in the classroom. Surely, the interaction in EFL classroom goes beyond casual daily conversation since classroom interaction is undertaken to evaluate the teaching learning process. Interaction in EFL classroom actively can be carried out between students and lecturers, and among students. Lecturers that is dominantly carried out the interaction are expected to communicate everything with the students such as; motivating, encouraging, and giving compliment to the students so that it automatically build up students' self-confidence to speak English. Besides, students' interaction in EFL classroom may be undertaken by letting the students involve in group discussion. In addition, the students keep speaking English during the interaction if the lecturer applies the right technique of teaching. In this research, the implementation of simulation technique with poster as visual aids is expected to improve students' social interaction and creative thinking in Speaking skill.

Simulation is technique of teaching that is suitable for creating an interactive EFL classroom in which the students will be let to speak as much as they can based on the information they have. According to Lean, Moizer, Towler and Abbey [2] stated that simulation aims to imitate the system, phenomena, or process by representing or predicting the information existed. Then, Wahyuni and Baroroh [3] pointed out that simulation technique is learning process that simply presents the real events in the classroom, in other words, the the students are asked to be pretending doing something real based on true events during the teaching learning process, the research showed that the implementation of simulation technique successfully improve students' achievement. Moreover, the research conducted by Sunaryo [4] stated that simulation technique is kind of learning script that is made from the real situation in order to let the students understand about certain concepts, principles, or skills in which the students taught by using simulation technique have a higher achievement. Then, Bakirci, Bilgind and Şimşek [5] argued that simulation technique helps to develop an daily situation that is presented in the classroom through the specific abstract features by using worksheets. The great impact of the implementation of simulation is also stated by Hardianty *et al.*, [6] in which they stated that the implementation of simulation technique absolutely affected on students' creative thinking in language learning since the students would be allowed both to explore and to adjust the materials given so the all the materials given through implementing simulation technique had been effectively delivered to the students. In brief, simulation technique

is an appropriate technique applied in speaking class for EFL learners because practice English by using dialogue from the book will not show a very significant effect, yet, stimulating the students to involve and to bring out the reality happened in their daily life into classroom will be more increasingly effective.

In order to achieve the aims of simulation technique in teaching speaking for EFL learners, the use of poster is very appropriate since poster is kind of visual media that can be seen directly by the students so they are asked to say everything they see over poster. According to Setiawan [7] stated that visual aids attract the students to think and to receive the message so the objective of learning can be achieved by the students effectively. Setiawan also stated that one of the appropriate visual aids is poster that is used in science class in which the students' learning outcome is being higher in all aspects; cognitive, affective, and psychomotoric. Furthermore, Dewi [8] stated that using poster as visual aids in teaching poetry successfully attract the students' interest since the poster have more than just picture, there are illustrations, explanations, and statements contained in the poster so the students easily to elaborate what they see through the poster, hence, the students are able to create their own poetry. Putri *et al.*, [9] argued that poster was kind of visual aids used in teaching learning process that was designed by colors, pictures, symbols, and messages in which the students were highly expected to catch the messages coming along with interesting pictures showed. In other words, the use of poster as visual aids certainly relate the picture with the the concept that make the students form their own explanation based on the poster that is used as visual aids that is expected to create an interactive EFL classroom to let students easily interact either with lecturer or with other students since the more frequent social interaction among during classroom activities, the easier students speak English freely.

According to Nisa [10] social interaction is the communication process that sends and receives both messages and actions including in the classroom. It means that social interaction needs to be improved in order to evaluate teaching learning process. related to this kind of interaction, the lecturer dominantly plays an important role of social interaction in the classroom, for instance, the lecturers keep interacting whatever happened in the classroom activities with students, such as; motivating, encouraging the students to keep speaking English

Hence, it is suggested that the combination of simulation technique and poster as visual aids for teaching speaking is very applicable because this combination will enhance the students' speaking ability since the students will be stimulated to speak what they investigate through the poster in English freely and

actively. Absolutely, there will be an social interaction occurred among the students as long as the students say what the poster tell about. In addition, it is also suggested that students have an ability to think creatively since the students are asked to design the posters that are really blend to them. In brief, the simulation technique with poster as visual aids improve students' interaction during classroom activities.

According to [11], there four indicators of speaking skill taught by implementing simulation technique with poster as visual aids, namely;

- Group discussion. It is related with the students' joyfulness working in the group that let them express their own idea, complete their own works together.
- Students' involvement. It is related with the student' involvement in designing and completing their own poster.
- Communciation. It is related with the way student communicate with others in expressing their opinion politely, and how the students respect each other during the interaction
- Time management. It is related with the lenght of duration the students need in completing the poster that it is evaluated through daily logbook owned by the lecturer.

Furthermore, the students' creative thinking is also exepcted to be improved in EFL speaking class throught the using of poster as visual aids. Arini and Asmila [12] stated that creative thinking is the ability to create something unique, innovative and novelty based on previous object, concept or principles. Supardi [13] said that students' creative thinking led the great impact of students' mathematic achievement as students' have their own way in developing the materials given. In other words, the more creative students, the higher learning outcomes will be achieved. The previous research showed that based on cognitive test and interview, 57, 4% of grade 8 students of Xaverius junior high school in Lubuklinggau Indonesia were able to

think more creatively after the teacher give the students an oppportunity to explore the students' creative thinking during learning process. In addition, Ulger [14] pointed out that creative thinking is the ability to develop either idea or product with the problems contained. In brief, students' social interaction and creative thinking are expected to be increased by implementing poster as visual aids. In order to measure the student' creative thinking in EFL speaking class, here are four indicators formulated;

- Smoothness. It includes the bright idea that will be used to solve the problem, and answer the question from the lecturer during poster completion.
- Flexibility. It includes the way students consider the differences point of view among other group members.
- Originality. It includes constructing and improving the design of the poster proportionally.
- Elaboration. It includes the way students modify both the idea and the design of the design of the poster so that interestingly creative poster will be produced based on the groups' decision.

RESEARCH METHODS

This research was carried out in Muslim Nusantara University Alwashliyah Medan. Semester II students were chosen as the population of the research, then two classes were chosen by applying random purposive sampling as the experimental class I and experimental class II. Experimental class I was treated by implementing the simulation technque with the poster as visual aids, while, experimental class II was treated by using the poster. To achieve the objective of the research, quantitative researach method was applied with factorical design in which there were dependent varibales; social interaction (Y) and creative thinking (Z), then, there were independent variables; simulation technique, and poster. In brief, independent variables known as treatment variables, while, dependent variable knwon as moderator variable [15]. The research design of the research was visualized in table-1.

Table-1: Research Design with factorial ANOVA 2 x 2

MP	(X)	
SE	Simulation with the poster (X ₁)	The poster (X ₂)
Social interaction (Y)	X ₁ Y	X ₂ Y
Creative thinking (Z)	X ₁ Z	X ₂ Z

Furthermore, the data found would be analyzed by using normality test with one sample Kolmogorov Smirnov and homogenous data with One way Anova, then for more comprehensive data analysis, ANOVA 2 X 2 with SPSS 22 IBM for Windows would be applied to investigate the hypothesis formulated as follows;

- Hypothesis I = H_a : μX₁Y ≠ μ X₂Y there was a significant effect on students' social interaction and creative thinking in speaking skill taught by

implementing simulation technique with the poster as visual aids.

- Hypothesis II= H_a : μX₁Z ≠ μ X₂Z, there was a significant effect on students' creative thinking in speaking skill taught by implementing simulation technique with the poster as visual aids.
- Hypothesis III = H_a : X x Y ≠ 0, there was an interaction occurred between technique simulation

with the poster with student’s creative thinking toward students’ social interaction

- Hypothesis IV = $H_a : Z \times X \neq 0$, there was an interaction between students’ creative thinking and social interaction toward simulation technique and poster as visual aids.

FINDINGS AND DISCUSSION

Prior to hypothesis test, normality test was carried out by applying Shapiro Wilk analysis as seen as Table-3.

Table-3: Normality Test

	Experimental Class	Shapiro-Wilk		
		Statistic	df	Sig.
Social Interaction	Experimental Class I (simulation technique with poster)	.965	31	.111
	Experimental Class II (Poster)	.946	31	.122
Creative thinking	Experimental Class I (simulation technique with poster)	.955	31	.209
	simulation technique with poster	.975	31	.652
*. This is a lower bound of the true significance.				
a. Lilliefors Significance Correction				

Detailly, the table above showed that all the data were distributed normally with $sig > 0,05$ For social interaction in experimental class I , the data obtained was distributed normally with $Sig\ 0.111 > 0.05$, while, for social interaction in experimental class II was also distributed normally with $Sig\ 0,122 > 0,05$.

For creative thinking in experimental class II , the data obtained was distributed normally with $Sig\ 0,209 > 0,05$, then, creative thinking in experimental class was distributed normally with $Sig\ 0,625 > 0,05$. After normality test, the data found would be tested with homogeneity test to measure whether the data were .

Table-4: Homogeneity Test

	Levene Statistic	df1	df2	Sig.
Social interaction	.009	1	60	.925
Creative thinking	1.600	1	60	.211

Based on table-4, it was showed that all the data were homogenous with $sig > 0,05$. For social interaction in experimental class I , the data obtained was distributed homogenously with $sig > 0,05$ ($0,925 > 0,05$). In addition, the data for creative thinking in experimental class II the was distributed homogenously with $Sig > 0,05$ ($0,211 > 0,05$). Since all the data were distributed normally and homogenously, the hypotheis would be carried out in order to answer the all the problems of the research formulated. Based on data analysis, all the problems of

the research were elaborated comprehensively as stated as follows.

For hypothesis I, the finding showed that students taught by implementing simulation technique with the using of poster as visual aids in teaching speaking had a higher social interaction and creative thinking. In detail, the comparison between experimental class I and experimental class II was shown in table-2.

Table-2: The Difference Among Students’ Social Interaction

The Indicators of Social Interaction	Experimeantal Class I (simulation technoque with the using of poster)	Experimental Class II (Poster as visual aids)
Group Discussion	89,46	70,75
Students’ involvement	87,40	70,32
Communication	87,31	70,11
Time management	88,06	63,55
Average	88,05	68,68

Clearly, the table above showed that implementing simulation technique with the using of poster as visual aidseffectively gave a great impact of students’ social interaction in which the highest score achieved by experimental class I was “group discussion” with 89,46%, while, experimental class I’s communication was also higher than experimental class

II $87,31 > 70,11$. Slightly, there was a great difference of social interaction between experimental class I and experimental class II that the simulation technique was an appropriate techniques combined with poster as visual aids in which the lecturer would not let the students explain the poster designed without guidance and instuction. In other words, the students taught by simulation technique would easily communicate with

each other as there was an guidance given by the lecturers so the students knew what they should present about the poster, such as; presenting the idea of the poster, solving the problem altogether with group members, constructing the idea, and completing the whole task. While, students taught experimental class II seemed to be silent during the classroom activities since the students only got along with the poster without the guidance or encouragement from the lecturers.

For hypothesis II, the students' creative thinking in designing the poster were investigated through observation sheet that were undertaken by the observants, in this case, the researchers. The finding showed that the creative thinking of students taught by applying simulation technique with poster as visual aids was higher than students taught by implementing poster. Clearly, it was showed in table-4.

Table-4: The Differences Among Students' Creative Thinking

The indicators of creative thinking	Experimeantal Class I (simulation technoque with the using of poster)	Experimental Class II (Poster as visual aids)
Smoothness	87,10	62,01
Flexibility	89,78	59,86
Originality	86,74	62,01
Elaboration	83,15	59,14
Average	86,69	60,75

Clearly, the students' creative thinking was measured through the indicators above. The highest indicator achieved by the students' creative thinking taught by implementing simulation technique with poster was flexibility with 89,78, while, experimental class II was only 59,86. It was indicated that experimental class I's flexibility during speaking with others in English was extremely higher than experimental class II's creative thinking. In other words, students in experimental class I were so much enthusiast designing the poster, also, they were so ocnfident completing the poster in different way, then,

the students seemed so ready answering all the question from the lecturer. In brief, the poster designed by the students in experimental class I were more attractive and creative rather than the poster designed by students taught by using the poster as visual aids.

Furthermore, Hypothesis III was showed that there was an interaction occurred between technique simulation with the poster with student's creative thinking toward students' social interaction with $F_{table} 4.00$ and $sig < 0,05$ as seen as table-5.

Table-5: ANOVA Multivariate Test

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Social interaction	1661.952 ^a	1	1661.952	294.740	.000
	Creative thinking	1098.726 ^b	1	1098.726	189.190	.000
Intercept	Social interaction	115758.726	1	115758.726	20529.293	.000
	Creative thinking	36629.823	1	36629.823	6307.301	.000
Experimental class	Social interaction	1661.952	1	1661.952	294.740	.000
	Creative thinking	1098.726	1	1098.726	189.190	.000
Error	Social interaction	338.323	60	5.639		
	Creative thinking	348.452	60	5.808		
Total	Social interaction	117759.000	62			
	Creative thinking	38077.000	62			
Corrected Total	Social interaction	2000.274	61			
	Creative thinking	1447.177	61			
a. R Squared = .831 (Adjusted R Squared = .828)						
b. R Squared = .759 (Adjusted R Squared = .755)						

The table-5 clearly showed that H_a was accepted through soical interaction in experimental class obtained $F_{observed} > F_{table}$ with $294,740 > 4,00$ and $Sig < 0,05$ with $0,000 < 0,05$. This data analysis showed that students' social interaction was being higher during classroom activities with simulation technique and poster. In addition, creative thinking in experimental class also showed that H_a was accepted with

$F_{observed} 189,190 > F_{table} 4,00$ and with $Sig 0,000 < 0,05$. It also proved that students taught by simulation technique and poster were able to design their own poster creatively.

Last, hypothesis IV test was completely analyzed with investigating the interaction among varibales occurred as stated as table-6.

Table-6: Hypothesis IV test

Tests of Between-Subjects Effects					
Dependent Variable: Social Interaction					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1764.696 ^a	18	98.039	17.895	.000
Intercept	85522.203	1	85522.203	15610.311	.000
Experimental class	110.250	1	110.250	20.124	.000
Creative thinking	102.744	17	6.044	1.103	.382
Experimental class * Creative thinking	.000	0	.	.	.
Error	235.579	43	5.479		
Total	117759.000	62			
Corrected Total	2000.274	61			
a. R Squared = .882 (Adjusted R Squared = .833)					

From table-6 above, it was showed that H_a was accepted with $\text{sig} < \text{prob} (0,000 < 0,05)$. It clearly proved that there was an interaction between simulation technique and poster in which simulation technique was being much more effective, if it was combined with poster as visual aids. In this research, the students were guided to design their own poster that was representative of their daily life, then the lecturer simulated the students through simulation technique systematically in order to facilitate the students improve speaking in English fluently. Hence, the students whose an creative thinking in designing the poster were absolutely able to interact with others in English.

Based on the finding above, this research found a new collaboration of simulation technique and poster as visual aids in teaching speaking for EFL learners. This collaboration leads to the more effectiveness classroom activities. Similarly, the previous research conducted by Setiawan [7] concluded that visual aids attract the students to receive the message visually so that the the objectives of learning successfully achieved. Then, a research carried out by Dewi [8] also found out that poster was very an attractive visual aids that could be used in teaching poetry to ease all the students illustrate, to explain, and to understand the idea of poetry through the poster. Certainly, through using of poster in this research gave a great impact to the students' creative thinking as the students did not only use the poster as visual aids, but they were asked to decide the idea of the poster, and to design the poster they liked the most. In other words, inviting the students to create their own poster that was implemented in speaking class significantly affected to the students' creative thinking in constructing the idea of talk. It was also supported by the study conducted by Ulger [14] found out that students' creative thinking was being higher with Project-based learning implementation. Moreover, EFL learners were also asked to increase their speaking skill through the social interaction in the classroom. The interaction would not be occurred without the stimulation given by the

lecturers. As the previous research found by Lean, Moizer, Towler and Abbey [16] stated that simulation aims to encourage the students to imitate the system, phenomena, concept, or process, Then, Wahyuni and Baroroh [3] concluded that the implementation of simulation technique successfully improve students' achievement since the students were asked to represent real life situation in the classroom,

CONCLUSION

As the finding and discussion above, this research concluded that the implementation of simulation technique and the using of poster as visual aids significantly affect on students' social interaction and creative thinking in EFL speaking class. In addition, it was indicated that students whose higher creative thinking in creating the poster would be easier to interact with each other in English. In short, the more frequent student' social interaction in the classroom, the higher speaking skill achieved.

ACKNOWLEDGMENT

The authors would like to express sincere gratitude to The Ministry of Research, Technology, & Higher Education of the Republic of Indonesia for the research fund.

REFERENCES

1. Nisa, S. H. (2015). Classroom interaction analysis in Indonesian EFL speaking class. *English Review: Journal of English Education*, 2(2), 124-132.
2. Lean, J., Moizer, J., Towler, M., & Abbey, C. (2006). Simulations and games: Use and barriers in higher education. *Active learning in higher education*, 7(3), 227-242.
3. Wahyuni, D., & Baroroh, K. (2012). Penerapan Metode Pembelajaran Simulasi Untuk Meningkatkan Aktivitas Dan Prestasi Belajar Ekonomika Mikro. *Jurnal Ekonomi & Pendidikan*, 9(1).
4. Sunaryo, G. R. (2015). Development of Nuclear Power Programme in Indonesia. *Presentation at the*

- 5th Nuclear Power Asia Summit, Kuala Lumpur, Malaysia, January, 27.
5. Bakırcı, H., Bilgin, A. K., & Simsek, A. (2011). The effects of simulation technique and worksheets on formal operational stage in science and technology lessons. *Procedia-Social and Behavioral Sciences*, 15, 1462-1469.
 6. Hardianty, N. (2013). Improving Speaking Skill Through the Use of Simulation Technique. *ELTS Journal*, 1(2).
 7. Setiawan, D. (2016). Pendekatan Belajar Melalui Karya Poster dalam Mengenalkan Materi Globalisasi Pada Mata Pelajaran PKN Untuk Siswa Kelas IV Sd 1 Ngembalrejo Kabupaten Kudus. *Refleksi Edukatika*, 6(2).
 8. Dewi, L. (2013). Pengaruh penggunaan media pembelajaran poster terhadap kemampuan menulis puisi oleh siswa kelas VIII SMP Negeri 3 Rantau Utara tahun pembelajaran 2012/2013. *Basastra*, 2(2).
 9. Putri, R. K., & Tarmansyah, F. (2013). Efektifitas Penggunaan Media Poster untuk Mengenalkan Pakaian Daerah Bagi Anak Tunagrahita Ringan Di Slb Al Hidayah Padang. *Jurnal Pendidikan Khusus*, 2(3).
 10. Long, T. M., Nisa, S., Donnenberg, M. S., & Hassel, B. A. (2014). Enteropathogenic Escherichia coli inhibits type I interferon-and RNase-L-mediated host defense to disrupt intestinal epithelial cell barrier function. *Infection and immunity*, IAI-00105.
 11. Abidin, Y. (2016). Revitalisasi Penilaian Pembelajaran dalam Konteks Pendidikan Multiliterasi Abad Ke-21. *Bandung: PT Refika Aditama*.
 12. Arini, W. (2017). Analisis Kemampuan Berpikir Kreatif pada Materi Cahaya Siswa Kelas Delapan Smp Xaverius Kota Lubuklinggau. *Science and Physics Education Journal*, 1(1), 23-38.
 13. Supardi. (2012). Peran Berpikir Kreatif dalam Proses Pembelajaran Matematika. *Jurnal Formatif* 2(4), 248-262
 14. Nugroho, G. A., Prayitno, B. A., & Ariyanto, J. (2017). Peningkatan Kemampuan Berpikir Kreatif melalui Penerapan Project Based Learning pada Materi Pencemaran dan Daur Ulang Limbah. *BIO-PEDAGOGI*, 6(2), 9-12.
 15. Sugiono. (2013). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*. Bandung. Penerbit Alfabeta.
 16. Auman, C. (2011). Using simulation games to increase student and instructor engagement. *College Teaching*, 59(4), 154-161.