

The correlation between peer interaction and students' English proficiency at SMAN 5 Bandar Lampung

Chita WidyaNingrum Dewantoro¹, Feni Munifatullah², Gita Hilmi Prakoso³

Universitas Lampung, Jl. Prof. Dr. Soemantri Brojonegoro No.1 Bandarlampung, Indonesia

¹Correspondence: chitawidya27@gmail.com

ABSTRACT

This research is aimed to investigate the correlation between peer interaction and students' English proficiency. This research is conducted in SMAN 5 Bandar Lampung with the population of eleventh grader students. The sample of this research is obtained by cluster random sampling technique. The cluster chosen from the cluster random sampling is 11 MIPA 3 with 36 objects. To analyze the correlation between peer interaction and students' English proficiency, the researcher used Pearson Correlation Coefficient analysis. Results are based on the guiding of the research questions. Based on the data obtained, 38.9% of the students have good English proficiency. To test the significance of the correlation, the r is 0.728 and the N is 36. Based on the result of the analysis, it is found that there is a strong correlation between peer interaction and students' English proficiency since $r=0.728$. According to the testing of significance which has been done by the research, it resulted that the alternative hypothesis is accepted.

Keywords: *Correlation, Peer interaction, English Proficiency Test.*

I. INTRODUCTION

English subject has been becoming an important subject in Indonesia's Schools although English still plays the role of a foreign language (Mappiasse & Bin Sihes, 2014). As a foreign language, English is at an essential level as a discretionary substance for elementary school and instructed as an obligatory subject from junior high school to senior high school and college as commanded in the public Indonesian educational program (Lauder, 2008); it even appears in final national examination in Junior High School and Senior High School.

Humans are social entities (Baker, 2015). Every human needs one another to fulfill their life necessities. This case also applied to students' social lives. Every student needs a friend to be with during their teenage stage. This social life cycle can also be applied in the school where students learn together with their classmates and share ideas. However, it is common for a teenager to have the closest friend in their school since they meet each other every day in the same place.

At the point when the students learn English at school, they get a similar treatment and the same matter as one another; nevertheless, the English proficiency levels will be different from each other. There are many reasons why their English proficiency levels are different. Students' English proficiency levels are representing how they are accustomed to utilizing English in their daily lives. This means students' social interaction gives the most influence on the students' English habits. Gass (2003) stated in 'The Handbook of Second Language Acquisition' chapter 9: Input and Interaction that interaction "takes as its starting point the assumption that language learning is stimulated by communicative pressure and examines the relationship between

communication and acquisition and the mechanisms (e.g., noticing, attention) that mediate between them” (pp. 224).

As interaction is the starting point that stimulates language learning (Gass, 2003), the researcher believes that peer interaction will significantly affect students’ English proficiency levels. The basic English communication skill should be mastered by Senior High School students in Indonesia as stated in Curriculum 2013 (Kemendikbud, 2013). On the other hand, the teacher in class more intensely teaches the students equally although students’ English proficiency level shows the different level result. Despite this fact, Epple et al. (2002) stated that grouping students in classes by potential will also have a major effect on student success, based on the extent of peer factors.

In the scope of peer interaction, Burke & Sass (2008) had done research related to peer interaction and its effect on students’ achievement in math and reading. The research result showed positive and highly significant peer effects within every level of schooling and for both reading and math. However, the correlation between Peer interaction and Students’ English proficiency research has not been done by any researcher before. This strongly supports the researcher to do the investigation on this topic.

II. METHODS

This research is using a quantitative approach. The researcher is intended to look at statistics on the correlation between peer interaction and English proficiency. This research applies the Pearson correlation coefficient analysis. Pearson correlation coefficient is used by the researcher to measure the correlation between two continuous variables (Setiyadi, 2018).

The research was done by administering an English proficiency test and distributing the questionnaire. The English proficiency test was administered to see students' level of English proficiency. At the end of the test, the researcher gave the questionnaire to the students to identify the students' peer interactions.

Participants

In this research, the population were from 11th grade in SMAN 5 Bandar Lampung. To obtain the sample, the researcher used the cluster random sampling technique. Each class in the Eleventh grade is recognized as one cluster of random sampling. Each class had the same opportunity to be chosen as the sample. Based on the result of the cluster random sampling, 11 MIPA 3 is chosen as the sample of the research.

Research Instruments

Peer Interaction Questionnaire

The questionnaire statement was adapted from: Relationship between Peer Group Influence and Students' Academic Achievement in Chemistry at Secondary School Level (Uzezi&Deya, 2017).

The format of the questionnaire consists of three parts:

- 1.Introduction: the title of the questionnaire.
- 2.Identity: the respondent’s identity (name, age, class)

3.Content: 15 closed-ended questions based on the respondent's reality dealing with students' peer interaction network.

Since the questionnaire consists of three different kinds of scales, so the researcher used standardized scoring. The formula of standardized scoring is:

$$Z = \frac{x - \mu}{\sigma}$$

Z = standard score

x = observed value

μ = mean of the sample

σ = standard deviation of the sample

English Proficiency Test

To measure students' English proficiency levels, the researcher used the booklet guide for beginner English tests based on the Language in Use Beginner Test (2000). All the scores of multiple-choice questions and writing tests were accumulated and the total score is 70 if the respondent can answer the entire questions correctly. To get the mark band score, the accumulated score was divided by 7. The mark band defines the level of English proficiency of the respondent.

Data Analysis

Analyzing the correlation between the questionnaire and the test result using Pearson's r. The formula is:

$$\text{Pearson's } r = \frac{\sum(X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum(X_i - \bar{X})^2 \sum(Y_i - \bar{Y})^2}}$$

Where:

X_i = Variable 1

Y_i = Variable 2

\bar{X} = Mean of X_i

\bar{Y} = Mean of Y_i

Pearson's r summarizes the relationship between two variables that have a straight line or a linear relationship. If the two variables have a straight-line relationship in a positive direction, then r will be positive and above 0. If the linear relationship is in the negative direction, so that increases in one variable, are associated with decreases in the other, then $r < 0$. The potential r values vary from -1 to +1, with values close to 0 suggesting a slight relationship between the two variables (Gingrich, 1992).

III. RESULTS AND DISCUSSIONS

Results

The Result of The English Proficiency Test

Based on the data obtained, 38.9% of the students have good English proficiency. The analysis of the students' score is shown below:

Mark Band	Description	Total of the students	Percentage	total score

9.0 - 10.0	Expert user	0	0	241.7
8.0 - 8.9	Very good user	2	5.50%	
7.0 - 7.9	Good user	14	38.90%	
6.0 - 6.9	Competent user	12	33.30%	
5.0 - 5.9	Modest user	7	19.40%	
4.0 - 4.9	Limited user	1	2.80%	
3.0 - 3.9	Extremely limited user	0	0	
2.0 - 2.9	Intermittent user	0	0	
0.0 - 1.9	Non-user	0	0	

The Responds of The Peer interaction Questionnaire

Based on Uzezi&Deya (2017). The mean of each item should be more than 3.00 to be classified as a positive response. The first segment of the questionnaire investigates students' achievement in English through peer interaction, 76% of the students agree that their achievement was getting better by doing peer interaction. The second segment analyzes their perception of English language skills in students' life and 82% of the students agree that English plays an important role in their study. The third segment examine the behavioral pattern of the students and 67% of the students agreed that English play role in their communication with their peer. In the fourth segment, the students were asked about their frequency of utilizing English in their communication with peers, and 79% of the students claimed that the frequency of using English affects their English skills. To analyze the peer interaction questionnaire, the researcher summed up the score from questionnaire item number 1 into number 15. The total score of the questionnaire is 54, to get the score of the 10-scaled score, the researcher divides the sum by 10. Based on the scores of the students, the mean of the peer interaction questionnaire response is 38.36 out of 54 and the standard deviation is 6.179.

The Correlation between Peer Interaction and Students' English Proficiency

To analyze the correlation between peer interaction and students' English proficiency, the researcher used Pearson correlation coefficient analysis. Based on the analysis on SPSS 25, the correlation between peer interaction and students' English proficiency is 0.728 which is interpreted as a strong positive correlation (Gay et al., 2012).

Discussion

This research was done in one class as the chosen cluster from the random cluster sampling. This research was using a correlational study. As it had been discussed in the first chapter, the aim of this research was to find out the correlation between peer interaction and students' English proficiency. It had been mentioned in the first chapter that in a collaborative project or operation, peer-to-peer interaction was described as an approach to interaction and cooperation between participants characterized by network-based organizational structures, a shared

collective resource base, and an expectation that all participants can make productive contributions. Based on Fernández Dobao (2016), working in pairs allowed the students to have more opportunities to interact since they are forced to collaborate at work. Students can practice using English as their resource base to communicate through the interaction that happened in pair work so it will enhance the students' ability in English skills.

To investigate the correlation between peer interaction and students' English proficiency, this research used Pearson correlation coefficient analysis. Based on the analysis, the correlation between peer interaction and students' English proficiency is 0.728 which is considered a strong correlation as $r > 0.70$. The mean of the students' marks is 6.7 so most of the students get a good mark on their English proficiency test. The mean of the peer interaction questionnaire is 38.36 out of 54 and the standard deviation is 6.179.

IV. CONCLUSIONS AND SUGGESTIONS

Conclusion

Several studies have been undertaken on peer interaction and students' English proficiency, such as the study conducted by Chesterfield et al. (1982), which discovered that peer interaction had a significant impact on students' English competence in terms of the second language. However, no study has been conducted on the correlation between peer interaction and students' English proficiency as a foreign language. As a result, it is hoped that this study would inspire more research into peer interaction and English proficiency in Indonesia.

Following the completion of the research, the writer reaches to conclude that there is a strong correlation between peer interaction and students' English proficiency as it is shown by the result of the Pearson Correlation Coefficient analysis that the value of the correlation is 0.728 which categorized as strong positive correlation and the research is statistically significant since the derived $t = 6.192 > \text{critical } t = 2.0322$.

Suggestion

Based on the findings of the study, the following recommendations were made as follows; students have to build good peer interaction since peer interaction is one of the social interactions which will affect students' learning habits in English skills learning, further research should be done on a larger population, and it should find out which aspect of peer interaction affects students' English skills the most. In addition to that, further research should develop the questionnaire in more detail to adjust the aspect of peer interaction more clearly.

REFERENCES

- Baker, L. R. (2015). Human persons as social entities. *Journal of Social Ontology*, 1(1), 77–87. <https://doi.org/10.1515/jso-2014-0037>
- Burke, M. A., & Sass, T. R. (2008). Classroom peer effects and student achievement. *Journal of Labor Economics*, 31(1), 51–82. <https://doi.org/10.1086/666653>
- Chesterfield, K. B., Chesterfield, R. A., & Chavez, R. (1982). Peer interaction, language proficiency, and language preference in bilingual preschool classrooms. *Hispanic Journal of Behavioral Sciences*, 4, 467–486.

- Commission, I. T. (2017). ITC guidelines for translating and adapting tests (Second Edition). In *Applied Psychology* (Vol. 24, Issue 1). <https://doi.org/10.1111/j.1464-0597.1975.tb00322.x>
- Doff, A., & Jones, C. (2000). *Language in use beginner tests*. Cambridge University Press. <https://doi.org/10.4324/9780203165287-13>
- Epple, D., Newlon, E., & Romano, R. (2002). Ability tracking , school competition , and the distribution of educational benefits. *Journal of Public Economics*, 83, 1–48.
- Fernández Dobao, A. (2016). Peer interaction and learning: A focus on the silent learner. *Peer Interaction and Second Language Learning : Pedagogical Potential and Research Agenda*, August, 33–61.
- Gass, S. M. (2003). Input and interaction. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 224–255). Blackwell Publishing Ltd. <https://doi.org/10.1002/9780470756492>
- Gay, L. R., Mills, G. E., & Peter Airasian. (2012). Competencies for analysis and applications 10th Edition. *Pearson Education, Inc* (10th ed., Vol. 6, Issue 2).
- Gingrich, P. (1992). Chapter 11 Association Between Variables. In *Introductory Statistics for the Social Sciences*. Department of Sociology and Social Sciences, University of Regina. <http://uregina.ca/~gingrich/text.htm>
- Kemendikbud(2013). *Kerangka dasar kurikulum 2013*. Kementrian Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Dasar. Jakarta.
- Lauder, A. (2008). The status and function of English in Indonesia: a Review of Key Factors. *Makara Human Behavior Studies in Asia*, 12(1), 9. <https://doi.org/10.7454/mssh.v12i1.128>
- Mappiasse, S. S., & Bin Sihes, A. J. (2014). Evaluation of English as a foreign language and its curriculum in Indonesia: A review. *English Language Teaching*, 7(10), 113–122. <https://doi.org/10.5539/elt.v7n10p113>
- Setiyadi, A. B. (2018). *Metode penelitian untuk pengajaran bahasa asing* (2nd ed.). Graha Ilmu.
- Uzezi, J. G., & Deya, G. D. (2017). Relationship between peer group influence and students' academic achievement in Chemistry at secondary school level. *American Journal of Educational Research*, 5(4), 350–356. <https://doi.org/10.12691/education-5-4-2>