

THE EFFECT OF BRAIN-BASED LEARNING TOWARD STUDENTS' SPEAKING SKILLS

Lalu Febryan Syahbandi
SMA Negeri 2 Praya, Lombok Tengah, NTB
E-mail: lalu.jorge51@gmail.com

Abstract

This study was intended to find out the significant effect of Brain-Based Learning toward students' speaking skills at SMAN 2 Praya in academic year 2017/2018. The method of the research was applied experimental research (quantitative approach). The population of the research was all the students of XI at SMAN 2 Praya and the sample of the study was 25 students consist of one classes. Based on the result of the study, it can be concluded that the use of Brain-Based Learning has positive effect toward students' speaking skills at SMAN 2 Praya in academic year 2017/2018, in which $t\text{-test} (4.664) > t\text{-table} (1.710)$ (0.05/90%) the df used 25. It indicated that the value of $t\text{-test}$ was higher than $t\text{-table}$.

Key Words: *Brain-Based Learning, Speaking skill*

Abstrak

Penelitian ini bermaksud untuk mencari efek yang signifikan terhadap brain-based learning terhadap kemampuan berbicara siswa di SMAN 2 Praya tahun ajaran 2017/2018. Metode yang digunakan dalam penelitian ini adalah penelitian eksperimental (pendekatan kuantitatif). Jumlah Populasi dari penelitian ini adalah semua kelas XI di SMAN 2 Praya, dan sebagai sampelnya adalah 25 siswa dari satu kelas. Berdasarkan hasil penelitian itu bisa disimpulkan bahwa penggunaan Brain-Based Learning telah mempunyai efek positive terhadap kemampuan berbicara siswa SMAN 2 Praya tahun ajaran 2017/2018, sebagaimana hasil $T\text{-test} (4.664) > t\text{-table} (1.710)$ (0.05/90%), df used 25. Itu bisa di nyatakan bahwa nilai $T\text{-test}$ lebis besar dari nilai $T\text{-table}$.

Kata Kunci: *Brain-Based Learning, Kemampuan Berbicara*

INTRODUCTION

Speaking is a natural action of the language to make someone be able to interact and communicate with other. Chaney (1998: 13) states that speaking is the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts. Speaking skill important for someone career. however, not limited to one's professional aspirations. In international relationship, the capability of English spaking is very important. It becomes a local content in elementary school, a compulsory subject in junior and senior high school and complementary subject of the higher educational institute.

Based on the researcher found that students at SMAN 2 Praya in academic

year 2017/2018 have difficult in learning English especially in speaking skill. The students were passive in class. They were afraid and shy. This is especially true when a teaches got interaction, such as asking questions or tell them describe something to the class as a whole, expecting at least one student to respond. But the students still cannot to answer the question or just saying something. Students reluctant to give feedback. These made big problems to the students in giving the question or answer the material or lesson at the class.

Regarding the problems faced by teachers and students above, the researcher proposes a solution to overcome the problems, brain-based learning as one of teaching technique of Cooperative Learning to reduce students' speaking.

According to Jansen, (2008) brain-based teaching and training is a technique of teaching speaking which make the students interested and helped students to speak. It was because this technique could make students active in the classroom, develop ideas and learn how to cooperate in a group and have a chance to speak English. In brain-based learning students are divided into several groups and each member of the group will have a turn to speak english.

Review of Related Literature

According to Brown, (2004:140) speaking is so much a part of daily life that we take it for granted. There are five components to make fluent in produce speech, namely fluency, comprehension, vocabulary, pronunciation, and grammar. The Indicators of speaking according to Brown, (2004:172) there are five indicators in peaking skill, they are: grammar, vocabulary, pronunciation, fluency and comprehension. Grammar: Mastering grammar knowledge will help one in speaking English, because he will know how to arrange word in sentence, what tense will be used, how to use appropriate utterance. In other word, grammar is important role to master the spoken of the language. Mastering vocabulary is first step to speaking English if the learners do not master vocabulary we cannot utterance what is our purpose. It is very important in speaking if the learners do not appropriate pronunciation it can influence meaning of word. In speaking, the learner must speak fluency because listeners are able to response what the people say. In speaking, comprehension is needed if not misunderstanding will happen between speaker and listener and the communication cannot run well.

Speaking is an interactive process of constructing meaning that involves producing and receiving and processing information. Speaking is a skill of conveying sounds of articulation to give idea and information Burns and Tarigan, (1997). Speaking is the product of creative

construction of linguistic strings, the speaker make choices of lexicon, structure, and discourse. Either five components are generally recognized in analyzing the speech process Brown, (2003: 157).

RESEARCHMETHOD

This study aimed to find out the effect of Brain-Based Learning toward students speaking skills at the second grade senior high school 2 Praya. Miller (2005: 4) state experiment is a means of collecting evidence to show the effect of one variable upon another. So that way, in this research the researcher manipulates the independent variable, holds all variable constant, and then observes the changes in the dependent variable.

The type of Experimental method used in this research is Pre Experimental design, where in this design there is only one group without control group. So that way, the researcher will use one group pre-test post-test design.

Population research only done for a limited population and the subjects are not many (Arikunto in Agung, 2012: 20). Based on statement above, the population in this research in the all of second grade students of SMAN 2 Praya in academic 2017/2018. The numbers of population are limited, it just 216 students as population, so it call population research. The population of this research was second grade of SMAN 2 Praya that had only one class. The class consists of 25 students. All population is used as sample. In selecting the sample of this research, the sampling technique operated at non-probability sampling, in short, it is surfeited sampling. This technique used to determine sample if all member of population is used to be sample (Sugiono, 2007:124). Such a technique is based on reason that sum of population is relative little or less than 30 persons.

Sugiyono, (2012: 102) states that research instrument is the tool that used to measure the nature or social phenomena that being research. Meanwhile stated that research instrument is tool or facility

which is used by researcher in collection data (Suharsimi, 2010: 203). In this study researcher used subjective test. Researcher used describing text as instrument to know students' speaking skill. It took a two pictures which students had choose.

Pre-test is a test that the researcher gives to the students to know the ability of the students in speaking skills before teaching and learning process conducting by the researcher. The kind of instrument that will be used for pre-test is describing picture. Post-test is a test that the researcher gives to the students to know the ability of students in speaking skill after the researcher giving the treatment (Brain-Based Learning) to the students in teaching and learning process. The kind of instrument that used for post-test is describing picture.

RESEARCH FINDINGS AND DISCUSSION

This chapter lead to discuss the findings and discussion. The researcher collected the data from the second grade students of SMAN 2 Praya in academic year 2017/2018. The researcher gathered the data by using test (pre-test and post-test). The process of collecting the data was started with pre-test. The result of the pre-test was used as the basic consideration of giving treatment. Pre-test in speaking skill was administered to the subjects under study to obtain their pre-existing ability in reading comprehension.

The data showed that, the highest score of pre-test was 60 and the lower score was 32, after the researcher calculating the score of pre-test by using descriptive analysis, the researcher found that the result of mean was 44.16 median was 46.15, mode was 49 and the standard deviation was 6.6. Here was the data found in pre-test as follows:

Table 4.1
Frequency Distribution of Pre-test

Class limits	Class boundaries	Mid point	Tally	F	xi.fi	%
32-37	31.5-37.5	35	IIII \	5	175	9.16 %
38-42	37.5-42.5	40	IIII \	5	200	4.16 %
43-47	42.5-47.5	45	IIII \	5	225	0.84 %
48-52	47.5-52.5	50	IIII IIII	9	425	5.84 %
53-57	52.5-57.5	55	0	0	0	10.84 %
58-62	57.5-62.5	60	I	1	60	15.84 %
Total			15	15	1110	100 %

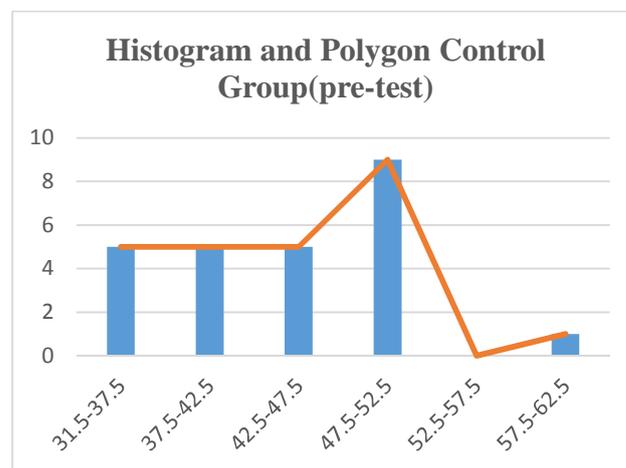


Figure. 1, Histogram and Polygon of Control Group (pre-test)

The Data of Post Test

The data showed that, the highest score of post-test was 68 and the lower score was 52, after the researcher calculating the score of post-test by using descriptive analysis, the researcher found that the result of mean was 62.4 median was 65.36, mode was 67.4 and the standard deviation was 5.4. Here was the data found in pre-test as follows:

Table 4.2
Frequency Distribution

Class limits	Class boundaries	Mid point	Tally	F	xi.fi	%
52-54	51.5-54.5	53	II	2	106	88.36%
55-57	54.5-57.5	56	III	4	224	40.56%
58-60	57.5-60.5	59	III	5	295	11.56%
61-63	60.5-63.5	62	0	0	0	0.16%
64-66	63.5-66.5	65	III	5	325	6.76%
67-69	66.5-69.5	68	III	9	62	31.36%
Total			25	25	1.012	100

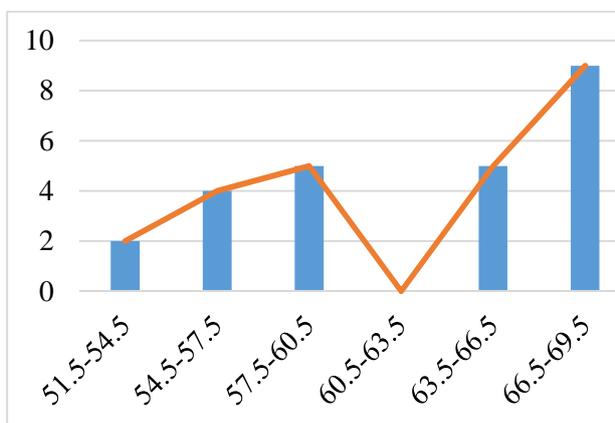


Figure. 2, Histogram and Polygon of Experimental Group (Post-test)

Testing Hypothesis

Testing hypothesis is the procedure for deciding if the null hypothesis should be rejected or the alternative hypothesis should be accepted. The hypothesis was tested by using t-test. To interpret the level of significance of the students before and after having treatment, calculating the t-test was needed in this research. The formula used was as follows:

Table 4.3
Result analysis of t-test in speaking

T	Df	Sig.2tailed	Ha
4.664	24	0.05	Accepted

From the table analysis above, because t-test (4.664) was higher than critical value of t-table (2.064) at the

significant level of 0.05, it means significant different between pre-test and post-test was exist. Alternative hypothesis was accepted and null hypothesis was rejected. Because mean score of post-test is higher than pre-test, it can be stated that there was significant effect of Brain-Based Learning toward students' in Speaking skills before and after treatment.

CONCLUSION

Based on the result of data analysis, researcher states that the research finding are as follows: The effect of Brain-Based Learning toward students speaking skills at second grade SMAN 2 Praya in academic year 2017/2018). Since t-test had significant different from t-table (4.664 > 1.710). Ha is accepted and Ho is rejected.

REFERENCES

- Burn, A., & Joyce, H. 1997. Focus on Speaking. Sydney: national center for English Language Teaching and Research.
- Chaney, A.L., & T.L. Burke. 1998. Teaching Oral Communication in Grades K-8 Boston: Allyn and Bacon.
- Cigman, R & Davis, A. 2008. Brain-Based Learning. New Philosophies of Learning. *Journal of Philosophy Education*, Vol. 42, 3 halaman.
- Clemon, S.A. 2005. Brain-Based Learning: Possible Implications for Online Instruction. *International Journal of Instructional Technology & Distance Learning*, Vol. 2 (9), 7 halaman.
- Edwards, B. 1999. The New Drawing on the Right Side of the Brain. Tarcher/Putnam, 4.
- Floyd, E. 2003. The Dana Guide to Brain Health. Free Press, 14, 28, 85.
- Given, B.K. 2007. *Brain-Based Teaching*. (L. H. Dharma, Penerj.) Bandung: Kaifa.
- Jensen, E. 2008. Brain-Based Learning. Yogyakarta: pustaka Belajar.

- Jensen, E., & Karen, M. 2002. *Otak Sejuta Gyabite: Buku Pintar Membangun Ingatan Super*. Bandung :Kaifa.
- Kammer, D. 2007. *ABC's of Brain-Based Learning*. Ashland University.
- Langelier, C.A & Connell, J.D. 2005. Emotions and Learning: Where Brain-Based Learning Research and Cognitive-Behavioral Counseling Strategies Meet The Road. *Rivier College Online Academic Journal*, Vol. 1 (1).
- Manus, C.M. 2002. Right Hand Left Hand: The Origins of Asymmetry in Brains, Bodies, Atoms and Cultures. Harvard University Press, 181.
- Mulyasa. 2007. *Menjadi guru Profesional menciptakan Pembelajaran Kreatif dan Menyenangkan*. Bandung : PT RemajaRosdakarya.
- OemarHamalik. 2005. *PerencanaanPengajaranBerdasarkan PendekatanSistem*. Jakarta: BumiAksara.
- Ornstein, R. 1997. *The Right Mind: Making Sense of the Hemispheres*. Harcourt Brace & Company, 2.
- Uno, H.B. 2009. *Teori Motivasi dan Pengukurannya*. Jakarta: BumiAksara.
- Porter. D.B., & Hernacki. 1999. *Quantum Learning: MembiasakanBelajarNyamandanMenyenangkan*. Bandung : Kaifa.
- Sastradi, Trisna. 2014. *Brain Based Learning (BBL)*
- Tersedia:<http://mediafunia.blogspot.com/2014/07/brain-based-learning-bbl.html> [26 Januari 2015].
- Simon, B.C. 2003. *The Truth about the Male and Female Brain*. Basic Books, 31.
- Steven, M. 2003. The Role of Self-Awarness and Mental State Attribution. *Cognitive Brain Research*, 17, 27-223.
- Turner, M. 1996. *The Literary Mind: The origins of Thought and Language*. Oxford University Press,45