

IMPROVING THE ELEVENTH GRADE STUDENTS' SPEAKING ACHIEVEMENT THROUGH WHOLE BRAIN TEACHING METHOD AT SMK FARMASI BINA MEDIKA PALEMBANG

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Abstract: The objectives of this study were to find out: (1) whether or not there was a significant improvement in speaking achievement between before and after the students were taught by using Whole Brain Teaching method, and (2) whether or not there was a significant difference on speaking achievement between the students who were taught by Whole Brain Teaching method and those who were not. The sample of this study was 58 eleventh grade students of SMK Farmasi Bina Medika Palembang, which were divided into control and experimental groups, and each group has 29 students. The technique of selecting the sample was convenience sampling. To collect the data, each group was given a pretest and a post test. The data analyses used paired sample and independent sample t-test. The results of this study showed that (1) that the p-output (Sig. 2 tailed) was 0.000 and t-obtained was 14.376 at the significance level at 0.05 in two tailed testing with $df=28$. It means that there was significant improvement in students' speaking achievement after the students were taught by using Whole Brain Teaching method, and (2) the t-obtained was 3.387 and p-output was 0.01 at the significance level 0.05 in two tailed testing with $df=56$. It means that there was significant difference in students' speaking achievement between who were taught by using Whole Brain Teaching method and those who were. In conclusion, teaching speaking through Whole Brain Teaching can improve students' speaking achievement.

Keywords: *Improving, Speaking Achievement, Whole Brain Teaching method.*

INTRODUCTION

Communication related to oral and speaking skill is a productive skill in the oral mode. Speaking is used when someone wants to communicate with others through message orally. Hughes (2006, p. 144) comments that speaking is the first mode in which children acquire language, it is part of the daily involvement of most people with language activities, and it is the prime motor of language change. It also provides our main data for understanding bilingualism and language contact. Speaking is one way to communicate which ideas and thought delivered through message orally. To enable students to communicate, we need to apply the language in real communication. According to Rickheit and Hans (2008, p. 207), speaking is speech or utterances with the purpose of having intention to be recognized by speaker and the receiver processes the statements in order to recognize their intentions.

Speaking is one of the most important parts in communication. The speaker should communicate in order to transfer the message to the listener. Brown (2004, p. 140) defines speaking as a productive skill that can be directly and empirically observed, those

observations are invariably colored by the accuracy and effectiveness of a test-taker's listening skill, which necessarily compromises the reliability and validity of an oral production test. From those statements above, it can be concluded that speaking is an utterance involving people with language activities to enable the speaker to communicate in order to tell the speaker's intentions.

The use of English is very needed for the students who are studying in Vocational High School so that the students can compete in international level. Vogt and Kantelinen (2012, p. 62) suggest that an increasingly international working life means that the need for foreign languages, and English in particular, is clear both for vocational and academic students. The goal of Vocational High School is to help students to master the particular skills for their specific working fields and enable them to join the employment market after graduated. Many graduates of vocational expected to plunge into the world of work or even create their own jobs. In order to compete in globalization era, English is used to communicate with people from different countries, while communication places great emphasis on the speaking capacity. In addition, many jobs require ability in English both passive or active. Having a good English especially for communication becomes a necessary requirement. In this case, it needs to be trained in order to have good English especially in speaking skill. Then, there should be a special course for them to improve their English. Teaching English for the students of Vocational High School is focus on using English for communication. The approach and method are specially formulated to meet the students need. Also, the goal and objectives are set up to achieve the language competence.

English skills especially speaking is useful for students in pharmacy because there are so many terms in health and drugs using English. The students need it to serve the English language needs of professionals studying and practicing pharmacy. Diaz (2009, p. 2) states that knowing vocabulary words in pharmacy is very important to communicate with professors, fellow students, patients, and co-workers. In pharmacy, lack of good communication skills can lead to misspellings of words and drug names, medication errors, and much more. For pharmacy students, pharmacy technicians, and practicing pharmacists whose first or best language is not English, assessing patients, counseling patients, and documenting subjective information from patients who sometimes use idiomatic expressions can be challenging. Assessing, counseling, and documenting require a good command of spoken and written language and acceptable

pronunciation and listening comprehension skills, as well as a solid knowledge of pharmacy.

However, speaking is not an easy skill to be mastered because it needs vocabularies, grammar, and a lot of practice. Zhang (2009, p. 91) argues that speaking remains the most difficult skill to master for the majority of English learners, and they are still incompetent in communicating orally in English. The most difficult aspect of spoken English is that it is always accomplished via interaction with at least one other speaker and this is one reason why many learners were shocked and disappointed when learners used their second or foreign language for the first time in real interaction: They had not been prepared for spontaneous communication and could not cope with all of its simultaneous demands (Segura and Junio, 2011, p. 21). In addition, Rabab'ah (2005, p. 192) points out that there are many factors that cause difficulties in speaking English among EFL learners. For example, many learners lack the necessary vocabulary to get their meaning across, and consequently, they cannot keep the interaction going. Inadequate strategic competence and communication competence can be another reason as well for not being able to keep the interaction going.

As a foreign language in Indonesia, many factors that make students have difficulties in speaking English. For example the psychological factors from the students, as stated by Haidara (2014, p. 518), students who had learned English for many years are still confronting some barriers in their English speaking performance, that came to prove the researcher's assumption in the firstplace. Most of the problems they were complaining were; being anxious, being nervous, being worried of making mistakes, feeling shy, and feeling frustrated while performing in English speaking.

Based on the preliminary research, the researcher has been experienced taught the tenth grade students in SMK Farmasi Bina Medika Palembang for one semester. The researcher found that the students' ability of speaking skill in SMK Farmasi Bina Medika was still lack. The students sometimes get confused when they hear the teacher speaks in English. Most of the students also can not answer what has been asked by the teacher in English. The students have difficulties to speak up because it was hard for them to express about what they want to say in English and they were not confident enough with their speaking ability. From 20 students, only 20% who got score above the standard score (77) while others got score below 77 in English subject. The students were not accustomed to speak in English in their daily life, they could speak 2 or 3 words and simple sentences in English but tend to combine it with their mother tongue. It can be

concluded that the students' speaking achievement was lack, it can be seen from the students' scores. The students' speaking achievement was still low based on the researcher's observation.

Because of the researcher nature of the world of education, the Whole Brain Teaching Method (WBT) method emerged as an alternative to instruction. This method proposed by Biffle (2010) engages students throughout the whole learning process by activating both brain hemispheres. The author continues to say that WBT method draws on theories and methods (such as Total Physical Response, Cooperative Learning, and Behaviorism), in order to create a method in which both hemispheres can work simultaneously when the essential principles of WBT method -Class-Class, Teach-Ok, Mirror, Hands and eyes, and Scoreboard- are applied in the classroom, taking into account the use of imagination and fun.

WBT method uses visualization and dramatization in order to develop comprehension. This method is relatively new; and it has been tested in mathematics, social studies, arts, dentistry, and also in kindergarten. The theories, methods and techniques that support WBT method have been implemented at some point in an isolated way, but WBT method combined them in order to have a successful method to teach young learners, adolescents and adults (Helena, Diana, and Mila, 2012, p. 10). It is supported by Biffle (2009, p. 1) who expressed that WBT is one of the fastest growing, education reform movements in America. It rests upon the principle that teachers at every level share the same difficulties: students lack discipline, background knowledge and fundamental problem solving skills. From kindergarten to college, teachers face students who have difficulty with reading and writing. WBT method injects fun back into the classroom for both teacher and students.

The research problems in this study are: 1) Is there any significant improvement on the eleventh grade students' speaking achievement who are taught by using WBT method at SMK Farmasi Bina Medika Palembang? 2) Is there any significant difference on the eleventh grade students' speaking achievement between those who are taught by using WBT method and those who are not at SMK Farmasi Bina Medika Palembang?

LITERATURE REVIEW

The Islamic Concept of Teaching Speaking

The importance of education has been emphasized repeatedly in the Qur'an, which is the ultimate source of guidance for Muslims. To seek knowledge is a sacred duty; it is obligatory on every Muslim, male and female. The five verses that were first revealed are associated with teaching and learning (QS. Al-'alaq: 1-5):

اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ۝ خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ ۝
اقْرَأْ وَرَبُّكَ الْأَكْرَمُ ۝ الَّذِي عَلَّمَ بِالْقَلَمِ ۝ عَلَّمَ الْإِنْسَانَ
مَا لَمْ يَعْلَمْ ۝

Acquiring knowledge is obligatory on every muslim, the knowledge of truth and wisdom. Knowledge can be broadly divided into two types, one is the knowledge of religion, and second is the knowledge required by community. It is the duty of every parent that should educate their children with the proper knowledge of both the types. Such as in religious knowledge which comes at first is tawheed, offering salah, reading holy book, fasting etc, how to speak to others.

Learn how to speak to others is an encouragement to speak what is good and beneficial; at the same time, it is a warning, cautioning us to be careful in what we say, lest we say something that is harmful or false. It is part of a Muslim's faith to speak the truth and to say things that bring about benefit to others. Allah says (QS. Al-ahzab: 70-71):

يَأَيُّهَا الَّذِينَ ءَامَنُوا اتَّقُوا اللَّهَ وَقُولُوا قَوْلًا سَدِيدًا ۝
يُصْلِحْ لَكُمْ أَعْمَالَكُمْ وَيَغْفِرْ لَكُمْ ذُنُوبَكُمْ وَمَنْ يُطِيعِ اللَّهَ وَرَسُولَهُ
فَقَدْ فَازَ فَوْزًا عَظِيمًا ۝

The Elements of Speaking

According to Heaton, 1990, p. 70-71), either four of five components are generally recognized in analyzing the speech process: 1) pronunciation; 2) grammar; 3) vocabulary; 4) fluency; 5) comprehension.

Types of Speaking Performances

Brown (2004, p. 140) describes six categories of speaking skill area. Those six categories are as follows: 1) imitative; 2) intensive; 3) responsive; 4) interpersonal (dialogue); 5) extensive (monologue).

Classroom Speaking Activities

Teaching speaking should be taught through attractive and communicative activities. There are many types of classroom speaking activities. Harmer (2001, p. 348-352) states six classroom speaking activities. They are acting from scripts, communication games, discussion, prepared talks, questionnaires, simulation, and role play.

The Concept of Whole Brain Teaching Method

Chris Biffle established whole brain teaching (WBT) in 1999 after 25 years of experience in the classroom (Biffle, 2010). WBT method is composed of seven core teaching techniques referred to as the Big Seven. The director of WBT method claim that teacher use of the techniques improve student academic achievement and self-efficacy (Biffle, 2010), he asserts that “Whole Brain Teaching (WBT) method is a set of strategies that combines the best attributes of Direct Instruction and Cooperative Learning to create an engaging classroom environment for students and an enjoyable workday for teachers (2010, p. 230-231).

The Advantages of Whole Brain Teaching Method

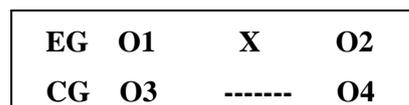
According to Battle, he convinced that WBT method is a method designed toward maximizing student engagement, and focusing on the way the brain is really designed to learn. It is an integrated method combining effective classroom management and pedagogically sound approaches to student engagement that are effective with a wide range of student learning populations. Whole brain teaching is considered a best practice, because this method of teaching seeks to empower students as learners.

The Teaching Procedures of Whole Brain Teaching

There are some WBT procedures contained several techniques used in teaching and learning process which called as big seven; 1) class-yes (attention grabber); 2) 5 classroom rules (follow directions quickly, raise your hand for permission to speak, raise your hand for permission to leave your seat, make smart choices, keep your dear teacher happy); 3) teach-okay (peer teaching 1); 4) the scoreboard (teacher's motivation); 5) mirror (follow the teacher's gesture); 6) hands and eyes (students' behaviour toward the teacher); 7) switch (peer teaching 2).

RESEARCH METHODOLOGY

In this study, the researcher used quasi-experimental design. In this design, a popular approach to quasi-experiments, both group were selected without random assignment. The experimental group was given treatment by using WBT method, but the control group was not. Creswell (2012, p. 630) defines quasi experimental design can be diagrammed as shown below;



This research applied 12 meetings including the pretest and posttest. After the treatment, the researcher gave the posttest which was exactly the same as the pretest. In this research there are two variables, independent variable (X) and dependent variable (Y). The independent variable is Whole Brain Teaching method (X) and dependent variable is the students' speaking achievement (Y).

Population and Sample

Population is all of investigated subject. "Population is a group of individuals who have the same characteristics." (Cresswell, 2012, p. 142). The population of this study is 89 students, they are eleventh grade students of SMK Farmasi Bina Medika Palembang in the academic year of 2016/2017.

In this study, the researcher took two classes as a sample to collect the data by using convenience sampling method. Eleventh grade students were chosen because it is willing and available to be studied. Based on the consultation that has been done by the researcher in the preliminary study in SMK Farmasi Bina Medika Palembang, the English

teacher recommended two classes, XI A & XI B which consist of 29 students for each class. The experimental group was chosen from the class which has the low mean score from the pretest, while another class with higher mean score from the experimental group became the control group.

Content Validity

In order to judge the test has or has not the content validity, a specification of the skills or structures should be made based on the curriculum and syllabus. The researcher devised a topic in accordance with the objectives of the test that was to measure students' speaking achievement. In the test of specification, it includes: objective, indicator, item and number of item. It was formulated based on the syllabus for eleventh grade students. The result showed that the topic is appropriate for the test.

Construct Validity

To estimate the construct validity, expert judgement is required. There are at least three experts to estimate the instrument form and lesson plan. In this research, it was measured by three validators, they were English lecturers from UIN Raden Fatah Palembang. The result showed that the instrument and lesson plan form was appropriate to be used.

Reliability Test

To estimate the reliability of the test, inter-rater reliability was applied. Three raters did the scoring for the students' speaking test based on the rubric provided by the researcher. According to Fraenkel and Wallen (2012, p. 99) "A rule of thumb for reliability coefficient should be at least 0.70 and preferably higher". The inter-rater reliability was used Spearman Rank-Order Correlation (Rho) suggested by Hatch and Lazaraton (1991, p. 451). From the result calculation of students' speaking achievement using ranking order method, it was found that the reliability score was 0.759. From the score, it can be assumed that the speaking test is reliable since the reliability score is higher than 0.70.

Normality Test

In normality test, the total of sample. Kolmogorov Smirnov Z, significant, and the result were analyzed. Based on the normality test of the students' pretest and posttest

score in control group. It was found that the significance level of normality test of the students' pretest score in control group was 0.510 and posttest score was 1.179 while the significance level of normality test of the students' pretest score in experimental group was 0.812 and posttest score was 0.429. From the result of the output, it could be stated that the obtained data was normal, because it is higher than 0.05.

Homogeneity Test

In homogeneity test, the total of sample. Levene statistics, significant, and the result were analyzed. It was found that the significance level of homogeneity test of the students' pretest and posttest score in control group was 0.008 while the significance level of homogeneity test of the students' pretest and posttest score in experimental group was 0.856. From the scores, it could be stated that the obtained data was homogen, because it is higher than 0.05.

FINDING AND DISCUSSION

In order to answer the first problem, paired sample t-test was used to measure the significant improvement in experimental group. The data was taken from students' speaking achievement in pretest and posttest in experimental group. The significant of improvement is accepted whenever the p-output (Sig.2-tailed) is lower than 0.05 and t-obtained is higher than t-table (2.048). While the significant of experimental group is rejected when the p-output (Sig.2-tailed) is higher than 0.05 than t-value is lower than t-table (2.048). The further calculation of the paired sample t-test was displayed in the table below:

Table 1. Analysis Result in Measuring Significant Improvement

| Experimental Group (Pretest-Posttest) | Mean Difference | Paired Sample t-test | | | Ho | Ha |
|--|-----------------|----------------------|--------|-----------------|----------|----------|
| | | df | T | Sig. (2-tailed) | | |
| | 14.72414 | 28 | 14.376 | 0.000 | Rejected | Accepted |

As seen in the table 1 above, it can be seen that the p-output 0.000 and t-obtained 14.376 at the significance level $p < 0.05$ in two tailed testing with $df = 28$. The p-output was $0.000 < p\text{-value}$ and $t\text{-obtained } 14.376 > 2.048$. It can be concluded that the significant improvement was accepted because the p-output was lower than significant level 0.05 and the t-value was higher than 2.048. The result of hypothesis testing was the

null hypothesis was rejected and the alternative hypothesis was accepted. It means that there was a significant difference on the students' speaking achievement who were taught by using WBT method.

To measure the significant difference on students' speaking achievement between posttest in control and experimental groups. An independent sample t-test was used for testing students' posttest scores in experimental group and posttest in control group. The significant difference is accepted whenever the p-output (Sig.2-tailed) is lower than 0.05 and t-obtained is higher than t-table (2.000) while the significant difference is rejected when the p-output (Sig.2-tailed) is higher than 0.05 than t-value is lower than t-table (2.000). The further calculation of the independent sample t-test was displayed in the table 2:

Table 2. Analysis Result in Measuring Significant Difference

| Posttest (Control and Experimental) | Mean Difference | Independent Sample t-test | | | Ho | Ha |
|---|--------------------|---------------------------|-------|---------------------|----------|----------|
| | | df | T | Sig. (2- tailed) | | |
| | 4.48276 | 56 | 3.387 | 0.001 | Rejected | Accepted |

From table 14, it can be seen that the p-output was 0.001 and the value of t-obtained was 3.387 at the significance level $p > 0,05$ in two tailed testing with $df = 56$, the critical value of t-table = 2.000 ($3.387 > 2.000$). The significant difference is accepted whenever the p-output (Sig.2-tailed) is lower than 0.05 and t-obtained is higher than t-table (2.000), since the p-output was lower than 0.05 and the value of t-obtained was higher than the critical value of t-table, it means that there was a significant difference on the students' speaking achievement between the students who were taught by using WBT method in experimental group and those students who were not in control group.

In teaching speaking for high school students, an English teacher should be able to use the appropriate way in order to make the students be more enthusiastic and interested in speaking English. According to Nunan (2003, p. 54-55), there are some principles for teaching speaking, first is by giving the students practice with both fluency and accuracy, learners must be given opportunities to improve their fluency as well as accuracy. Second is by using group work or pair work, pair work and group work can be used to increase the amount of time that learners get to speak in the target language

during the lesson. It is in line with Nunan, the use of WBT method gives the students time to practice and use pair work in learning activities.

CONCLUSION

Based on the findings and interpretations presented above, it can be concluded that there was a significant improvement on the eleventh grade students' speaking achievement who were taught by using WBT method and there was a significant difference on the eleventh grade students' speaking achievement who were taught by using WBT method and those who were not at SMK Farmasi Bina Medika Palembang. The students who were taught by using WBT method showed better improvement that can be seen from the result of the students in test. The students were enthusiastic with WBT method implementation in learning process, they practiced more to speak English with their peers, the students also could remember the lesson they have learned easily because they did repetition. WBT method can engage the students in learning process because it activates the whole brain. The researcher can concluded that the use of WBT method was very useful as one of the methods to improve students' speaking achievement.

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