

Article of improving reading comprehension through left and right brain technique

ABSTRACT

ANDI ACHMAD AFANDI, 2015. *Improving Reading Comprehension of the Eleventh Year Students of SMANegeri 1Parepare through Left and Right Brain Technique.* Supervised By AmmanLatifahand Salasiah.

This research was intended to reveal that: can left and right brain technique improve reading comprehension of the eleventh year students of SMA Negeri 1Parepare significantly.

This research used quasi experimental method, with three group pre-test and post-test design. The population was the eleventh year students of SMA Negeri 1Parepare. The samples were drawn by using random sampling technique that consisted of 114 students which were class XI IPA2 as experimental class, class XI IPA 4 as the first control class, and class XI IPA 3 as the second control class. The data were acquired by using reading comprehension test. The reading comprehension test was applied in the pre-test and post-test. The data required from reading test was analyzed by using f-test (ANOVA) and percentage technique.

The result of the data analysis showed that left and right brain technique can improve the reading comprehension of the eleventh year students of SMA Negeri 1 Parepare significantly. It was proved by the mean score of the pre-test was (67.50) and the post-test was (78.02). Besides, the mean score of the students in post-test (78.02) was higher than the standard scoring DepartemenPendidikanNasionalRepublik Indonesia (70.00). After analyzing the data by using the f-test formula (ANOVA), the result of f-test value in post-test was (4.40) and f-table value was (3.09). Those indicated that H_1 was accepted and H_0 was rejected.

A. Background

Reading is one of language competences that have important roles. This competence is acquired to develop understanding about ideas through book or writing form. According to Beene & Kopple, (1992: 2) in Khisbulloh (2012:15) stated that most ideas, issues, and information are communicated through writing. By this reason, people are required to have good skill in reading comprehension. This skill is able to help them find out new ideas by their critical thinking. In addition, in fact many modern countries have good reading cultures such as America, Japan, and Australia. It means that to improve quality of a country, society should be aware to have reading culture. This would make the country more qualified in every field.

Indonesia is one of developing country which needs also reading culture for the society to improve the quality of the human source. This effort has been designed by the government for every level of education in Indonesia. Every Indonesian student has to face reading lesson in English class. Reading is also one of the competences of English that is considered as their final examination. Student has to reach the score target that is determined by the government to pass in final.

Grellet (1992:4) stated that there are two reasons for reading. There are reading for pleasure and reading for information. Both pleasure and information depend on the reader. Reading for pleasure is done without other people order, while reading for information, in many cases relevant to current study of the readers. People read to find out things, as a natural phenomenon of the innate characteristics of the human doing to be curious about world around him, he needs information to

reduce uncertainties. The people should be active to read in English to make them constantly receive thoughts or ideas from what they have read. Through reading, the people can also obtain information which can help them understand and solve various problems which come constantly in their life.

Refer to the School Based Curriculum KTSP (2006) of Junior High School; it states that in learning English especially reading activity, students must be able to comprehend the functional written text and short essay in various texts. However, mastering a reading comprehension is not an easy matter. Some students in English class are failed in learning reading for instance; the researcher observation at SMA Negeri 1 Parepare especially the eleventh year students. The researcher found that the students' mean score in reading comprehension test was only 69.50. Based on the score criteria of Departemen Pendidikan Nasional Republik Indonesia (2005:28), 69.50 categorizes as fair classification. It meant that there were a lot of students whom failed in reading comprehension class. It was caused some factors such as the students were not able to get the idea and express the information from the text that they read, and students did not know method or technique that could solve their problem especially in reading comprehension where most of students in learning process just inclined to use half brain.

From those problems, the researcher tried to solve by giving treatment. One of the ways to improve the students' reading comprehension is through left and right brain technique. The purpose of left and right brain technique is to generate opportunities for the students to understand more in learning process. The brain is a gift from Allah SWT which consists of the left and right brain. Every human brain develops uniquely and differently. Each part of the brain has a function and ways of working differently. The balance of left and right brain thinking or affect the quality of a person's

intelligence. Because if only the left brain is developing well, without being followed by the development of the right brain, then someone will not understand very well, related with Indonesia curriculum since ago our education just disposed focus how to improve knowledge through left-brain teaching then ignore half brain, it is right hemisphere, that's why our education there was imbalance and the students could not use their brain optimally because the system education forced the students just use their half of brain.

Moreover in our country many system that only give big attention for students who has a inclination of left-brain, automatically the students who has a tendency of right brain felt uncomfortable then rebel with the situation, because of imbalance in our education many students felt uncomfortable because difficult to accept the lesson not because they are foolish but the education system not gave more attention for them. Based on that explanation, the research gave a technique how to learn by combine left and right brain, so that there was no more imbalance and the students got the result optimally. This research focused to improve reading comprehension by combining left and right brain technique like how to use left brain for analysis a text and use right brain to improve students' imagination. It made the learning process be focus and pleasure. Therefore, students had much deeper understanding from text that they have read.

To this study, it was focused on learning by using left and right brain to improve students thinking skill. This technique was believed that can improve students reading comprehension because students not only analyze the text very well but also capable stimulated them to use their imagination to image the entire actor in the story. It can be good for student that like analyzing (logic) and putting their imagination in a drawing (art)

Considering these explanations, the researcher proposed a research in reading entitle "Improving Reading Comprehension of the Eleventh Year Students

of SMA Negeri 1 Parepare through Left and Right Brain Technique”.

B. Problem Statement

Based on the background above, the reading comprehension of the eleventh year students of SMA Negeri 1 Parepare was low. Therefore, the researcher formulated a research statement as follows:

Can left and right brain technique improved reading comprehension of the eleventh year students of SMA Negeri 1 Parepare significantly?

C. Problem Statement

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D. Objective of the Research

Based on the problem statements above, the objective of this research was to find out whether or not, left and right brain technique can improve reading comprehension of the eleventh years students of SMA Negeri 1 Parepare.

E. Significance of the Research

This research was expected to be useful information in teaching and learning process, especially in English. The significance of this research was divided into two parts namely:

1. Theoretical significance, the result of this research is expected to be useful contribution and information to the learning and teaching process in improving the quality of education. In this case is English subject especially in teaching reading comprehension.
2. Practical significance, the result of this research provides the useful information such as:
 - a. For educational institution, the result of the research is expected to be useful information in developing method to improve reading comprehension.
 - b. For curriculum designer, the result of this research is expected to be consideration in arranging and designing a curriculum to improve the quality of the teaching and learning in the future.
 - c. For the English teacher, the result is expected to be very useful references to create some method how to make their learning and teaching process enjoyable and interest for the students. It is also expected to make them sure that left and right brain technique is one of the technique that can help in teaching English especially reading comprehension.
 - d. For the students, this research is expected to facilitator and it motivates the students in improving their reading comprehension through left and right brain technique
 - e. For the next researcher, this research is expected to be source information and motivate the next researcher to create another idea to improve reading comprehension.

1. Left and right brain technique

a. Left and right brain function as technique

BPK Penabur(2011) as institute of education development mentioned that there is some characteristic of left and right brain. Left brain has a inclined to think consciousness, according logic, thinking by words, selective, analyzing,systemic thinking, and glad to work alone contrary right brain has a inclined to think sub-consciousness, creative, intuitive, by using emotion, think for picture (visualization), holistic and glad to work as team. Based on that explanation we can adapt several things from left and right function as thinking technique to use it for our learning reading comprehension. For left brain technique, we adapt in Reading skill such as:

- 1) Logic thinking: logic thinking is the rule of think correctly, the students will the answer the questions based on the narrative text, such as true or false, fact and opinion, caused and effect etc.
- 2) Analyzing: analyzing is part of logic thinking ,this technique is how to understanding the text profoundly By using analyzing text such as find out the plot, main idea, character of the actor what tense the story use it, what is the moral message etc.
- 3) Think by sequence: think by sequence is how to make all of thing to be sequence from the fist until the end; it minds that the students have to think what chronological order, generic structure, is etc.
- 4) Thinking by words: it minds that the students that inclined left brain more likes to use words as long as learning process such as listening the teacher that explain by words, likes to reading because it is use words, and writing also, it minds that as long as the learning process the teacher have to explain orally and by writing, then give the lesson by using words (narrative text).

- 5) Glad to work alone: the students that tend to left brain are more like to work individually as long as answer the question.

While for right brain technique function as thinking technique to use it for our learning reading comprehension such as:

- 1) Think for picture

Paisak(2009: 229) explained in his book "Unlimited potency of the Brain" drawing can optimize brain in three ways, namely making more agile fingers, develop imagination and creativity and the ability to train the ability to distinguish colours. imagination may flourish as drawing can train the ability Perceptions (perceptual skills) there are five perception can be enhanced through the images that shape, space, relationships, light, shadows and overall, further identification forms can also develop the brain, in this universe there are thousands of forms, ranging from the simple to the complex: straight line, triangular, quadrilateral, the circle until the combinations are "food" for the brain, especially the right brain.

The students that tend to right brain not only read the text but they have to put into the drawing paper as a realization according to their imagination from what they read such as the actor, places, situation, colours, etc.

- 2) By using emotion

To touch more their emotion when the students read the text, the teacher will be play music that appropriate as a soundtrack from the story. Meilani (2011) stated that music greatly affects human emotions. For example, the background music of a film would suit the scene. When a sad scene used mournful music,

scene heroic used heroism music, while at the scene of horror that used the music used. If the music used is not appropriate, it will not generate the expected emotion. As an example, scenes of horror that use humour music certainly will not result in a scary atmosphere. It is proved that the effect of music on human emotions is varieties.

In addition, according to the research results Herrera (1996) and Siegel (1999) in Khaira (2013) which is based on the theory Neurology explained that the neurons or nerve cells would be the stimulation circuit if there is music, sound stimuli in the form of separate neurons that coordinate into a mesh in brain circuits. The more stimuli music will be given the increasingly complex tangle of neurons. In the same line, Sperry (1960) in Khaira (2013) stated that part of the brain is divided into left brain and the right brain with neurons combination play a role in working optimality entirety while simultaneously working to balance left and right brain

3) Holistic thinking

Holistic thinking is how to think comprehensive with consider every aspect that probably influence a something happened or problem , in the learning process the teacher will be give a question based on conflict in the narrative text then the students looking for every aspect that probably influence that problem or the students that problem.

4) Creative

According to Aditya (2013) in his book “Krearif Sampai Mati”, there is several things that he explained about a how to be creative, one of technique that he offered is “Record it & Mix it” technique. Based on that explanation, we can use it for drawing by record then mix something old with something new. It meant that the students will be drawing the actor with

something latest such as a Marvel (super Hero) American drawing stylish, Manga as Japanese drawing stylish. The point is drawing as creative as they can.

5) Glad to work as a team

The students that tend to right brain more likes to work together, it meant that as long as a drawing process the teacher will let them interaction each other.

b. Strengthening and difficulties

Diffen(2011) as social science stated that left-brained people are supposed to be good at mathematics, reading, spelling, writing, sequencing and verbal and written language. They may have difficulty with abstract visualization and Right-brained people are supposed to be good at multi-dimensional thinking, art, music, drawing, athletics, coordination and repairs. They remember faces, places and events.

However, right-brained people may have difficulty understanding parts if they can't see the whole. They may also struggle with sequencing, organizing a large body of information and remembering names.

c. Brain functions

Che & He (1998: 1) stated that if we look at the overall shape of the brain, we will know that the brain is divided into two equal parts, namely the size and shape of the right brain and the left brain (Rajah 2). The main function of the right brain is to combine and arrange the parts or fragments of knowledge to a comprehensive form. It more specifically in the overall process knowledge. It can also connect linkage and function of each part separately.

In contrast, the left brain function is more analytically. It is processing, analyzing serially, and identifying the parts one by one. Parts of the right brain to master things like imagination, the depiction of the way, get to know the colour, the object as a whole, emotional, spiritual and music. Parts of the left hemisphere is also mastering things like language, logic, math, writing, reading, linear, serial, and other planning other academic activities. If the two halves of the brain of capability can be used to an optimum level then forms the teaching and learning of mathematics is something very amazing

d. How right brain versus left brain thinking impacts learning

Funderstanding (2011) as institute of Education Development states that Curriculum in order to be more “whole-brained” in their orientation, schools need to give equal weight to the arts, creativity, and the skills of imagination and synthesis. *Instruction to foster* a more whole-brained scholastic experience, teachers should use instruction techniques that connect with both sides of the brain. They can increase their classroom’s right-brain learning activities by incorporating more patterning, metaphors, analogies, role playing, visuals, and movement into their reading, calculation, and analytical activities.

e. The left and right brain teacher

Scholastic as institute of education development (2010) stated that teachers with left brain strengths generally prefer to teach using discussion. To incorporate sequence, they put outlines on the board or overhead, and they like to adhere to prepared time schedules. They give problems to the students to solve independently. Teachers with left-brain preferences assign more research and writing than their

right-brain peers. A reasonably quiet, structured classroom is preferred. The classroom tends to be clean, with items in their place.

While, teachers with right brain strengths generally prefer to use hands-on activities over a lecture format. In concert with the right-brain preference of seeing the whole picture, these teachers incorporate more art, manipulative, visuals, and music into their lessons. They tend to embrace Howard Gardner's multiple intelligences. They like to assign more group projects and activities, and prefer a busy, active, noisy classroom environment. The classroom of a strong right-brain teacher will typically have materials and books scattered all over.

f. Teaching technique for right and left brain

Funderstanding(2011) as institute of education development explained some important things that related with left and right brain technique. Dr. Diane Connel, director of the Master, program in learning disabilities at River College in New Hampshire has been studying the art and science of learning for most of her lifetime during this time she has developed left and right brain teaching techniques that may prove successful when implemented in elementary school classroom.

Moreover, Connel in Funderstanding(2011) suggested following step to apply left brain teaching technique. Let say, for example, to introduce a unit solar system , here are left brain teaching technique that will help strong to moderate left-brain students feel engaged during the lesson

- 1) Write an outline of the lesson on the board .students with left-brain strengths appreciate sequence.
- 2) Discuss vocabulary words and create a crossword puzzle on the solar system.

- 3) Discuss the big concepts involved in the creation of universe, how the solar system was formed, and so on, left-brain students love to think about discuss abstract concepts.
- 4) Assign individual assignment so students may work alone.
- 5) Ask the students to write a researcher paper on the solar system that includes both detail analysis.
- 6) Keep the room relatively quiet and orderly. Many students with left-brain strengths prefer not to hear other conversations when working on a stimulating project.

While for right brain teaching technique, taking the solar system example, here are some right brain teaching techniques that will help students with moderate to strong right-brain strengths get most out of your lesson

- 1) During the lecture, either write the main idea points in the board or pass out a study guide outline that students can fill in as you present orally, these visual clues will help students focus even though you are lecturing.
- 2) Use the overhead, the white board, or the chalkboard frequently. Since the students are apt to miss the points discussed verbally, the visual pointers will help the students “see” and comprehend the points.
- 3) Have some time for group activities during the week of the solar system study. Right brain students enjoy the company of other.
- 4) Let the students create a project (such as poster, a mobile, a diorama, or paper match planets of the solar system) in lieu of writing paper, right-brain students often have excellent eye-hand coordination.
- 5) Play music such as the theme from 2001: a space odyssey. Discuss how space might feel to an astronaut. Students with right-brain strength are intuitive and like to get in touch with their feeling during the day.

- 6) Bring in charts and maps of the universe and let the students find the Milky way Maps
graph make use of the students' strong right-brain visual-spatial skills.

g. Education of art

Iryanti&Jazuli (2001) stated that art has a very important role, namely as the basic needs of human education (Basic Experience in Education), meet the basic needs of aesthetics, attitude and personality development, and determinants of the other intelligence. Mental dimension (morality) of art can actually help the emotional and intellectual intelligence, respect cultural plurality and the universe, grow the power of imagination, motivation, and harmonization of students in negotiating or respond to every socio-cultural phenomenon.

Based on that explanation we know that by using art in learning process it will give many good impact for students ability. Furthermore, art also capable to optimize for our brain so that we can balance between left and right brain

A. Conceptual Framework

The conceptual framework of the research consisted of three parts; there were input, process and output.

1. Input

Reading comprehension is ability of the reader in conveying message or information to reading text. This involved the readers' understanding to what they read. Woolley (2011:15) states that reading comprehension is a process of making meaning from text. Therefore, the goal is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences.

However, mastering a reading comprehension was not easy matter. In the previous chapter, the researcher figured out that reading comprehension of the eleventh year students of SMA Negeri 1 Parepare was low. It was proved by the students' mean score in reading comprehension test is only 69.50. It was caused some factors such as the students were not able to get the idea and express the information from the text that they read, and students did not know method or technique that could solve their problem especially in reading comprehension where most of students in learning process just inclined to use half brain.

2. Process

The researcher introduced the reading material about the narrative text to the students that consisted of three topics. They were: Cleopatra, Princes Tandampalik, and the Legend of Pamboang. The materials were delivered in three classes through different treatment. In experimental class, the students were taught reading material through left and right brain technique. In this technique, the students were asked to do activities in learning process by use their left and right brain where left brain to analyze the text such as find out main idea, cause effect, the story conflict, generic structure of text, actors and their character and then right brain to imagine all of the actor's feature, scene, places, then the students drew in drawing paper.

This figure below was the following structure that was applied by the researcher for the students, how the learning activities which have impact for the students brain to improve reading comprehension through left and right technique.

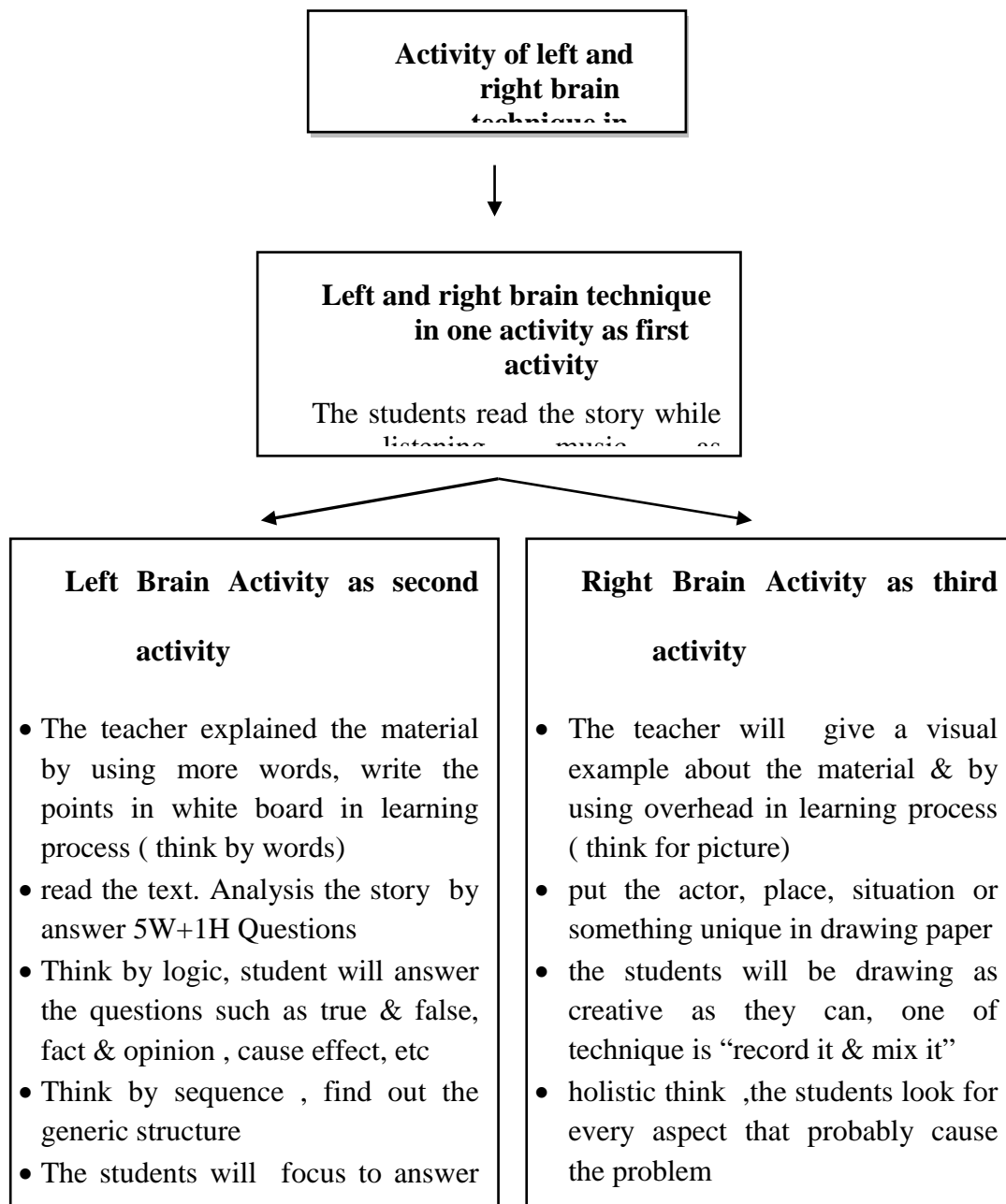


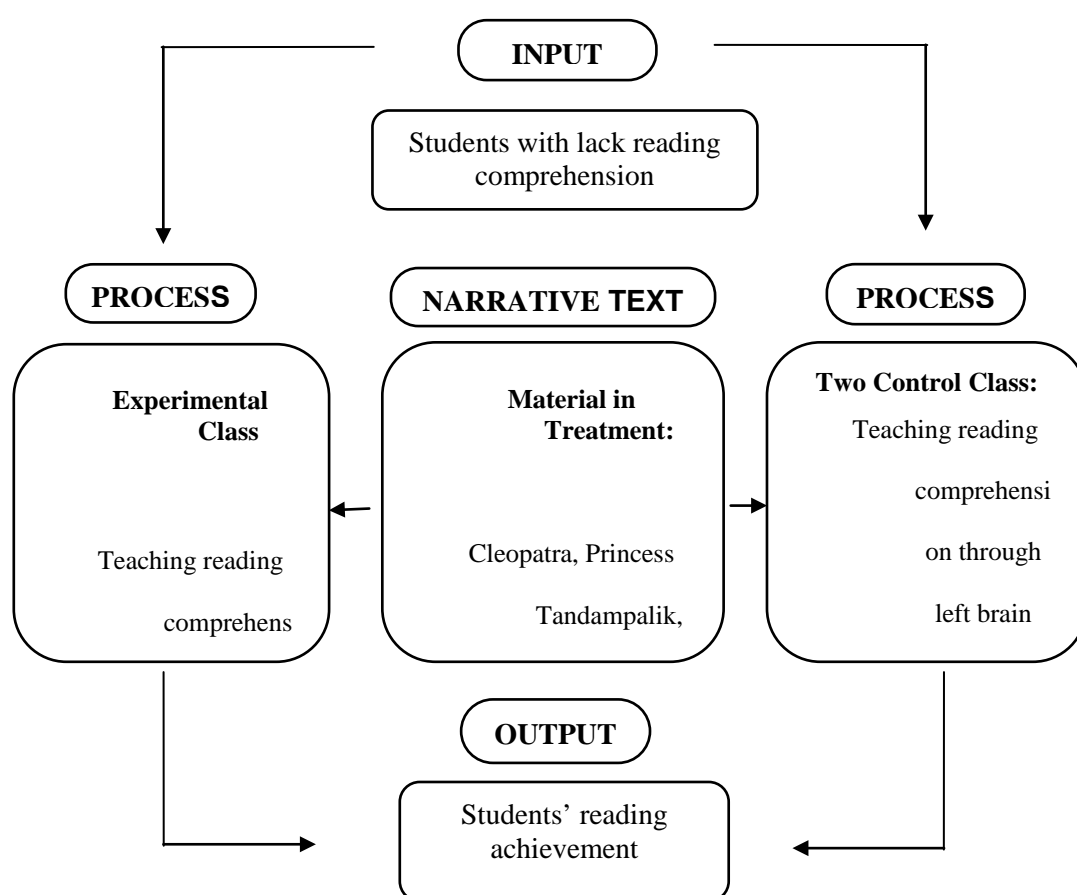
Figure 2.1: Activity of left and right brain technique in learning process

3. Output

In output, the researcher gave reading comprehension test both experimental and control class to measure the students' improvement after giving treatment in each class. The test consisted of 20 items where 8 items for essays, 6 item for multiple choices and 6 items for true or false. The researcher expected that there was a significance improvement of students' reading comprehension after giving treatment left and right brain technique.

The conceptual framework of this research gave us the following figure:

Figure 2.2: The conceptual framework



The three variables: input, process, and output briefly committed as follows:

1. Input refers to the reading comprehension of the eleventh years students of SMA Negeri 1 Parepare was low.
2. Process refers two parts, they were: first, the students of experimental class were taught reading material through left and right brain technique. Second, the students of control class were taught reading material through individual learning.
3. Output refers to the improvement of students' reading achievement.

B. Hypothesis

Based on the review of related literature and the problem statement, the researcher put forward as follows:

1. The Null Hypothesis (H_0): there was no a significance difference between the students who were taught through left and right brain technique and the students who were not taught through left and right brain technique.
2. The Alternative Hypothesis (H_1): there was a significance difference between the students who were taught through left and right brain technique and the students who were not taught through left and right brain technique.

RESEARCH METHOD

This chapter presented the research design, variables, and operational definition of variable, population, and sample, instrument of the research, procedure of collecting data, procedure in treatment, technique of data analysis the and criteria of testing hypothesis.

A. Conclusion

Considering the result of the data analysis and the discussion of the result in the previous chapter, the researcher concluded that left and right brain technique can improve reading comprehension of the eleventh year students of SMA Negeri 1 Parepare significantly. It was proved by the difference between pre-test and post-test result in experimental and both of control class. While, the result of the f-test value (F_o) in post-test was 4.40 and the f-table value (F_α) was 3.09. It showed f-test value (F_o) was greater than f-table value (F_α). By correlating this result with the testing hypothesis, it indicated that null hypothesis (H_0) was rejected and alternative hypothesis (H_1) was accepted. In addition, the mean score of post-test in experimental class 78.02 was higher than the standard scoring Departemen Pendidikan Nasional Republik Indonesia (70.00). It totally showed that the reading comprehension of the eleventh year students of SMA Negeri 1 Parepare can improve significantly through left and right brain technique.

B. Suggestion

Based on the conclusions above, the researcher gives suggestion as follows:

1. It is strongly suggested that teaching reading comprehension through left and right brain technique should be continually implemented at SMA Negeri 1 Parepare.
2. Teacher of English should be creative and innovative to manage the materials for teaching reading comprehension.
3. Teachers and organizers of schools are expected to modify and give information about left and right brain technique in teaching English, especially in teaching reading comprehension.
4. Creative students are expected to build a positive activity where students can practice, give their ideas, aspirations, and opinions that can improve their reading comprehension.

5. Curriculum designer is suggested to make left and right brain as a technique in teaching process especially in teaching reading comprehension. It is suggested to be considered in arranging and designing a curriculum to improve the quality of the teaching and learning in the future.