Improving Pupils' Reading Comprehension by using Whole Brain Method and Motivation of Reading

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Abstrak

Penelitian ini berkaitan dengan pengaruh Whole brain method dan motivasi siswa dalam pemahaman membaca. Penelitian ini menggunakan metode desain faktorial 2x2 (dua per dua). Populasi penelitian ini adalah seluruh siswa kelas V SD Muhammadiyah 06 Palembang tahun ajaran 2022/2023 yang berjumlah 103 siswa. Sampel penelitian berjumlah 40 siswa yang dibagi menjadi empat kelompok (2 kelas). Mereka adalah 20 siswa sebagai kelompok eksperimen yang terdiri dari 12 siswa yang memiliki motivasi membaca tinggi dan 8 siswa yang memiliki motivasi membaca rendah; dan 20 siswa sebagai kelompok kontrol yang terdiri dari 7 siswa yang memiliki motivasi membaca tinggi dan 13 siswa yang memiliki motivasi membaca rendah. Data dikumpulkan dengan menggunakan angket dan tes tertulis dengan soal pilihan ganda yang dianalisis dengan menggunakan uji-t dan Anova dua jalur. Sementara itu, hasil uji ANOVA dua arah menunjukkan bahwa tidak ada interaksi yang terlihat antara strategi seluruh otak dan motivasi siswa dalam membaca pemahaman.

Kata Kunci: *Whole Brain Strategy, Motivasi Siswa, Pemahaman Membaca.*

Abstract

This study concerned with the influence of whole brain method and Students' motivation of reading comprehension. This study applied 2x2 (two by two) factorial design method. The population of the study was all the fifth grade students of SD Muhammadiyah 06 Palembang in academic year 2022/2023 with 103 students. The sample was 40 students that divided into four groups (2 classes). They were 20 students as experimental group that consist 12 students who had high reading motivation and 8 students who had low reading motivation; and 20 students as control group that consist 7 students who had high reading motivation and 13 students who had low reading motivation. The data were collected by using a questionnaire and written test with multiple choice questions analyzed by using t-test and two-ways Anova. Meanwhile, the outcome of the two way ANOVA test, indicates that there is no discernible interaction between the whole brain method and students' motivation of reading comprehension.

Keywords: *Whole Brain Method, Students' Motivation, Reading Comprehension.*

INTRODUCTION

Reading is one of the four fundamental language skills to master since it has a substantial influence on the other three, namely speaking, listening, and writing. It indicates that students must understand how freshly provided information connects to general topic knowledge. Understanding how phrases, paragraphs, and primary ideas relate to themes is critical. Reading, according to the preceding

definition, is a talent that everyone must have in order to interpret written text or other print content. We can transfer and improve science, technology, and culture through reading abilities. Many people who despise reading may find it difficult to participate in reading programs and activities since one cannot read a piece without comprehending its meaning. Identifying the author's idea, whether it is stated openly or implicitly, it may show that the student understood what they read.

According to Collins English Learner's Dictionary, reading comprehension is a text that students use to help them improve their reading skills by it and answering questions relating to the text. Comprehension is the ability to understand something with full knowledge and meaning. According to Jarmianik (2012), reading comprehension is the ability to derive meaning from written content. Readers are regarded successful when they comprehend the writer's intended meaning.

According to Kusumawanti and Bharati (2018), reading abilities play the most significant role in students' learning achievement since reading activities initiate and promote total learning activities. It means, by using good strategic, they will not run out of the time. They change and direct their reading style depending upon their purpose for reading, the complexity of the text, and their familiarity with the topic. Unlike poor reader, skilled readers monitor their reading comprehension. If something in the text is puzzling, they will go back and use fix up strategies, such as re reading, rephrasing the text to improve comprehension, or looking ahead.

Based on Zuhra (2015) revealed in his research that students faced reading comprehension problem because they did not know the meaning of many words. Reading is a continuously developing activity, one that constantly improves through practice. It is not mastered once and for all. At all stages of reading, from the beginning on, it is important that the learner has sufficient opportunities to practice and engage in the process of reading.

Motivation to read is an essential subject to consider, especially when it comes to improving children's ability to deal with global trends. They will obtain knowledge and experience of reading and writing as a predictor of state achievement via reading.

Whole Brain Strategy (WBT), according to Biffle (2013), is a collection of methods that combines the best aspects of Direct Instruction and Cooperative Learning to create an engaging classroom environment for students and a joyful workday for instructors. It is considered as one of the world's fastest-growing educational reform movements. The Whole Brain Strategy (WBT), which is based on Hermann's (1998) research, is a brain-based concept-based teaching technique.

To address these issues, the author adopted the Whole Brain Strategy as an alternate way to improve students' motivation and understanding in learning English, particularly in reading. It can boost their English because this method is fantastic to adopt in the classroom and can enhance teaching reading as a process. The activities in the lesson will appeal to both teachers and students. When the environment is pleasurable, the teaching and learning process becomes more successful. The teacher is not the focus of attention. Students are frequently

involved in the process of teaching and learning. The employment of enticing gestures is one activity in the execution of the Whole Brain Strategy. The teacher makes a gesture, and the students do assignments. The author wishes to create an environment in which pupils love the learning process so that they will be driven to study the book.

METHOD

A research approach and a pretest posttest control group were used to treat the pupils in this study. The outcomes of the two groups would be compared to see if the approaches utilized to boost students' reading comprehension were more successful or not. This study has two groups: the experimental group and the control group. The pretest and posttest were administered to each group. The experimental group will be given a treatment Whole Brain Strategy before to the posttest. Because the writer will compare the posttest outcomes of the experimental and control groups, the control group was given a typical approach.

There are three categories of variables in this study: independent variables, dependent variables, and moderator variables. An independent variable is a characteristic or quality that affects or impacts an outcome or dependent variable (Creswell, 2012). A dependent variable is a trait or quality that is dependent on or influenced by the independent variable (Creswell, 2012). The experimental group is the independent variable Whole Brain Strategy, the dependent variable is reading motivation to assess the influence of the independent variable, and the moderator variable is reading comprehension.

The writer will choose two classes from a total of 103 pupils in the available population of fifth grade students at SD Muhammadiyah 06 Palembang. The population of this study is all of the fifth grade classes at SD Muhammadiyah 06 Palembang in the academic year 2022/2023. The example above displays one experimental class and one control class. The chosen pupils are split into two groups. There are two groups: experimental and control. The entire brain technique is used to teach the experimental group. Meanwhile, the pupils in the control group are not taking part in the experiment. The sheets were then separated into two groups with the same total number by the researcher. The researcher taught each group separately, with 20 pupils in the experimental group learning reading comprehension using the whole brain technique and 20 pupils in the control group learning reading comprehension using the traditional strategy.

The writer will provide the pupils a total of twenty questionnaire items, and the pupils will be requested to complete the questionnaire. The questionnaire consists of a checklist of strongly agree, agree, disagree, and strongly disagree responses. Following data collection, the writer utilizes SPSS to examine content validity, with a total of 20 items employed in this study. The writer utilized a written test in the form of multiple choice questions to the pupils (experimental group and control group) to collect data. It is supported by Richards and Scahmidt (2010, p.591), "Test is any procedure for measuring ability, knowledge, of an instrument to reach the objective".

The writer will administer two tests to the pupils: a pre-test and a post-test. A pre-test is provided to the experimental and control groups before therapy, and

a post-test is given to the pupils after treatment to determine the outcome of the treatment. Before administering the exam, the validity and reliability of the test items must be determined.

The content validity is utilized in this study to determine the validity, the content of the reading description, and the syllabus used for fifth grader pupils as the example of research that is shown below. SPSS will be used to verify the test's validity. The f-count must be greater than the r-table to be legitimate. If the statistics calculation's r-count is greater than the r-table. If the Cronbach Alpha coefficient is more than 0.70, the question is considered trustworthy, or a construct or variable is considered reliable. If the Cronbach's Alpha coefficient is less than 0.70, the question is considered untrustworthy. The reading comprehension test has a reliability of 0.915.

RESULTS AND DISCUSSION

The writer took the first move, encouraging the topic by emphasizing their desire to learn. After acquiring information on the people' motivational styles, the researcher split them into two groups: those with high motivation and those with low motivation. The class had a total of 20 pupils. Furthermore, based on the information gathered from the results of conducting the pretest and posttest to the experimental and control groups. The average and total value of each group of pupils were then computed based on their motivation to study and the educational technique they received. The table below contains descriptive information on the collecting of pupils' scores.

Table 1. Average score of learning motivation and educational techniques

Groups	Number of Students'	Mean Scores	Sum
Pretest Experimental	20	44.00	880
Posttest Experimental	20	74.50	1490
Pretest Control	20	34.00	680
Posttest Control	20	53.50	1070

According to the test results, highly motivated pupils in the experimental class had the greatest post-test average of 73.57, while less motivated pupils in the control class had the lowest post-test average. According to these findings, the average test scores of all pupils in the experimental class are higher than those of the control group. After collecting the data from the pupils' tests, an analysis was performed. The t-test and two-way ANOVA tests were used to evaluate the data, which also included previous testing for data homogeneity and normality.

The results of the normality test in Kolmogorov-Smirnov reveal that the pretest score of the experimental group and the control group were 0.117 and 0.117, respectively, and the posttest score of the experimental group and the control group were 0.073 and 0.182. Because the whole brain method significant value was more than 0.05. Furthermore, because the p-value surpasses the significance criterion at the 0.05 level, it is assumed that the samples are homogenous based on the homogeneity test performed on the pretest and posttest scores in both groups.

The hypothesis was tested when the distribution and homogeneity of the study data have been established. In order to answer the following questions:

1. Whether there is a discernible distinction between pupils who high motivation of reading taught by using whole brain method and those who do not.
2. Whether there is a discernible distinction between pupils who had low motivation of reading taught by using whole brain method and those who do not.
3. Whether adopting a whole brain method to teach pupils with high and low motivation of reading differ significantly to one another.
4. Whether teaching without the use of whole brain method to teach high and low pupils motivation of reading differ significantly from one to other
5. Whether there is a interaction effect between of whole brain method and pupils motivation on reading comprehension.

The criteria of hypotheses testing are "Ho is rejected and Ha is accepted when the sig. value obtained is lower than the alpha value (0.05)".

Table 2. Hypothesis Testing Using Independent T-test Result

Hypothesis	Sig-2 (tailed)	Decision
1	0.007	Ha accepted
2	0.002	Ha accepted
3	0.024	Ha accepted
4	0.009	Ha accepted

In the other hand, a significant value of 0.537 was achieved using the two-way ANOVA test findings. As a result, Ho is deemed acceptable since there is no discernible link between the design of the whole brain method and the pupils' drive to learn new words.

The first point, individuals with high levels of motivation who got whole brain method education vs those who did not. Curiosity and challenge elements impact distinct reading comprehension who high pupils' motivation in the experimental and control groups. The second point, individuals with poor motivation who got training using the whole brain method as opposed to those who did not. A factor effects different reading comprehension and lowers pupils' motivation in both the experimental and control groups. It's called self-efficacy. The third point, individuals who received training using the whole brain method paradigm had both high and low levels of motivation. Pupils in the experimental group with strong motivation were intrigued about the meaning of new terminology. It can increase their ability to grasp the material; nevertheless, pupils with low motivation in the experimental group are less interested in learning about the meaning of the text. Last but not least, persons who do not undergo whole brain method have both high and low levels of desire. It is a factor of difficulty. It is induced by the intrinsic motivation of the students in the control group's high motivation being better than the pupils in the control group's low motivation. The last, the two-way analysis ANOVA revealed any interaction effects of whole brain method or motivation of reading on reading comprehension, and the writer discovered that the whole brain method was successful and suited for one specific group. Following an assessment of this thesis, the writer comes to the conclusion that using the whole brain method is one method for assisting pupils in expanding their vocabulary. That is connected to the study done by Lahita, Mujiyanto, Sutopo (2018), which made use of whole brain method as a teaching tool. Also study done by Rahmatika (2015), entitled "The

Use of Whole Brain Strategy Method to Improve Students' Reading Ability". She concluded that the Whole Brain Strategy method is an effective method to implement to the students of MTs Miftahul Falah Betahwalang in improving their reading ability.

CONCLUSION

It can be concluded that there is a difference in reading comprehension between high and low motivated pupils who are taught utilizing the whole brain method and those who are not. Pupils who are taught the whole brain method and have high levels motivation of reading typically have higher reading comprehension than pupils who have low levels motivation of reading and are not taught the method. Meanwhile, whole brain method can be an alternative teaching since it has shown that the teaching of whole brain method can develop the motivation of reading in pupils' reading comprehension of descriptive text. Besides, the teacher also must focus on the organization and language since they were very poor in reading.

REFERENCES

Biffle, C. (2013). *Whole Brain Strategy for challenging kids. Whole Brain Strategy: A world leader in brain based learning.*

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.).* Boston, MA: Pearson Education.

Collins dictionary online. (n.d). Retrived from https://www.collinsdictionary.com/dictionary/english/readingcomprehension

Hermann. N (1998). *Twenty years of thinking about the thinking brain. A special summary of learning outcomes.* Herrmann International Lake Lure. USA.

Jarmianik, (2012). Improving Students' Reading Comprehension Using ETR Method at the Tenth Grade Students of SMP Negeri 3 Mojolaban in The Academic Year Of 2011/2012. Unpublished Thesis. Surakarta: Universitas Sebelas Maret.

Kusumawanti, W. D., & Bharati, D. A. L. (2018). The effectiveness of close and explicit reading instructions to enhance reading comprehension to highy and lowly motivated students. English Education Journal of UNNES, 8(40), 1–9. doi: 10.15294/eej.v8i1.21995

Lahita. N, Mujiyanto. J, Sutopo. D (2018) "The Effectiveness of Whole Brain Strategy and Reciprocal Teaching in Reading to Visual and Auditory Students". http://journal.unnes.ac.id/sju/index.php/eej. 8. (2): 186-194.

Rahmatika, R.M (2015). *The use of Whole Brain Strategy method to improve students' reading ability.*

Zuhra. (2015). Senior high school students' difficulties in reading comprehension. English Education Journal, 430–441.