

# **A Comparative Study of the Effect of Brain Dominance on Learners' Performance in Multiple Choice of English Grammar**

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## **Abstract**

Language testing was placed in the last part of teaching and learning activity in all school. It is as tool to measure students' competence to be their performance to show their capability. In other side, beside technique and method to improve and enlarge students' performance were founded, the factors in which become the reason of both decreasing and increasing competence and performance are studied. One of them is students' preference because of their personalities. This research tries to dig pupils' performance because of their differences in term of brain dominance. Grammar test is used as the ruler since it has components in language skill namely reading and listening which are use mostly in language testing such as TOEFL and IELTS.

**Keywords: Brain Dominance, Learners' Performance, Grammar Test**

Since the study in 60's, Roger Sperry and another several scientists found interesting discovery to be considered that is grouping of personality which is based on their brain dominance (Buzan, 2005). It is about one's preference which depends on literalization of their brain. Right and left part have different joblists in managing certain individual. Logical suit, order thoughts, and think systematically are the characters of person who is left brain dominance. Differ side, right dominance person will be more imaginative and creative.

Language testing becomes interesting since it is a must to measure students' competence. Harris (1974, 4) mentions in his book there are six techniques of language testing namely translation, dictation, composition, scored interview, multiple choice items, and short-answer items. From those six, the researcher formulates conclusion that multiple choice is the best among others in term of efficiency, economical, and practical. In most language testing, it is easy to find it as the certain technique to give score as prove one's competence. TOEFL and IELTS are the instances.

However, the researcher finds it still hard to pass the standard score even though the test takers use that best technique. It happens in one of school in which as the setting of place

in this research namely in Pamekasan, Madura. The English teachers explain few students got standard score though the material has been explained.

That phenomenon makes the researcher interested in comparing the amount of score from two group of personalities that are right and left brain dominance in getting standard score based on school preference.

### **Methods**

This study use numerical data in processing the result. The research design is quantitative approach, especially ex-post facto research. Ex-post facto or causal comparative is used since this reserch occurs naturally and without manipulation (Ary et al, 2010).

The population is all of first grade SMAN of Pamekasan. Sampling procedure is taken after deciding the number of both group of learners. Total population is two hundreds and ninety four. One hundred and forty eight learners are left brain and one hundred and six learners are right one. Furthermore, slovin formula is chosen to count the number of sample. The result is twenty samples for both.

The instruments are questionnaire and grammar test. Questionnaire makes the difference between both group is clear enough and this study could be conducted. Last is grammar test to measure both competence and it will be reflected in their performance in term of score.

### **Finding**

This part will talk about data analysis and hypothesis testing which are gotten in this study as follows:

#### **1. Data Analysis**

Since this study use quantitative approach, automatically, it will have numerical data as the result. In making it easier, software package for statistic and simulation or SPSS has been used and the results as follows:

**Table 1 Group Statistics**

VAR00001	N	Mean	Std. Deviation	Std. Error Mean
VAR00002 left	20	51.9	15.21109	3.4897595
Right	20	41.80	10.10086	2.3172983

**Table 2 Independent Samples Test**

	Levene's Test for Equality of Variances						t-test for Equality of Means		
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
VAR00002			2.140	38	.001	5.11023	4.189068	.375	.825
Equal variances assumed	11.415	.121							
Equal variances not assumed			2.140	20.172	.001	5.11023	4.189068	.326	.874

Table 1 shows the equivalence sample that is 20 students for both group with different mean, standard deviation and standard error mean. The mean for left brain learners is 51.9 and 41.80 is for right brain learners. The difference of mean is 10.1 in which this score will become the answer of first research problem which will be elaborated in next session.

Next table that is 2 shows independent samples test which the contents are several value and the most crucial one is t-value ( $t_0$ ) of this research that is 2.14. with degree of freedom is 38. This data will be formulated to answer the last research problem in which in next discussion will be elucidated.

## **Discussion**

This study tries to prove the theory which has been discovered by Sperry and other scientists that language competence is on left part. The sample from learners who left brain dominance are better in term of language testing than other group strengthen this theory which the data is in finding.

The implication here is touching the significance of study in which for the teacher and the students. By comprehending the students' tendency well whether they are left or right brain dominance learners, it will make them more aware what skill they have, and the teachers are ready to guide them to the appropriate way for the sake of their success.

## **Conclusion**

The art of teaching makes easier the process of teaching learning process itself. There's no stupid students, they just have their own way and skill to follow their success based on their own passion and preference. The discovery about the technique, methods, and approach lines and creates possibilities to reach the goal of education that is comprehension and good understanding. Sperry is one of scientist who *helped* the educators, teachers especially in directing their learners to show their best based on their personality in term of brain dominance, especially.

## **Suggestion**

Hopefully this study will inspire all of education-handlers to find suitable approach in enhancing and increasing their pupils' skill; to make them aware and comprehend that everybody especially learners are unique. There's no foolish in all school, they just have different preference in term of competence.

Besides, all educators should know and apply the role of themselves in class; one of them is advisor and guide to direct their pupils know and understand their skill for their best future life.

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