International Journal of Advanced Education and Research
ISSN: 2455-5746, Impact Factor: RJIF 5.34
www.alleducationjournal.com
Volume 2; Issue 3; May 2017; Page No. 20-21

Hemispheric dominance and its relation with quantitative aptitude among secondary school students

Abdussamad RK

M.Sc, M.Ed., Lecturer in Govt. College of Teacher Education, Kozhikode, Kerala, India

Abstract
The teacher should have the knowledge of individual differences and should plan to teach the learning material in such a way that it should reach the entire pupil in the class room to a large extent. Majority of the people feel that mathematics is a difficult subject and it can be understood that it followed only by exceptionally intelligent students. Those who fail in the subject, they felt hatred towards it. For removing these phenomena the teacher should aware about the preferred learning styles and abilities of each student. The teaching techniques in schools, especially in mathematics can be under taken in consonance with student's style of learning and thinking. This approach will remove unnecessary restrictions on teaching and learning. In this context, a strong need was felt to conduct a study on the relationship between Hemispheric dominance and Quantitative aptitude of adolescent pupils.

Keywords: hemispheric dominance, teaching techniques, quantitative aptitude

Introduction

Back ground of the study

Individual difference mainly based on the hemisphere dominance of individual. So we should have important information about the hemisphere dominance of on individual to lead them in order to their taste. In the field of education the teachers should have awareness about the abilities of pupil. Also the teacher should aware about renewal aptitude.

Quantitative aptitude is the synonymies of mathematical aptitude. It is the due ability to solve mathematical problems accurately. National policy of education suggests that mathematics should be visualized as the vehicle to train a child to think, reason, analyze and to articulate logically. Apart from being specific subject, it should be treated as a concomitant to any subject involving analysis and reasoning

The awareness of hemispheric dominance and its relation with quantitative aptitude is remarkable endeavor to enrich teacher preparation in mathematical education

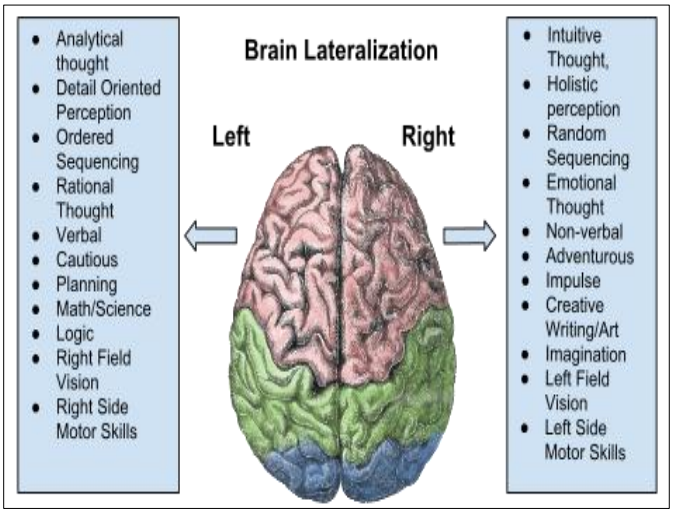

Fig 1

Statement of the Problem

A study of hemispheric dominance and its relation with quantitative aptitude among secondary school students.

Definition of Key terms

Hemispheric dominance

It is the cerebral dominance of an individual in retaining and procession modes of information in his own style of thinking and learning.

Quantitative aptitude

It is the numerical ability and accuracy in mathematical calculation.

Secondary School Students

The pupil who are studying in VIII, IX and X standards in Kerala.

Objectives of the study

To find out the association between the different levels of quantitative aptitude and brain dominance among secondary school students

Hypotheses of the study

There exists no significant association between the different levels of quantitative aptitude and brain dominance among secondary school students.

Methodology of the Study

Descriptive survey method was adopted for the present study. Survey method was employed to collect detailed description of existing phenomena with the intention of achieving goals.

Sample

The sample of the study consisted of 500 secondary school students. The sample was drawn from male & female from Government Schools. They belonged to both rural and urban schools.

Tools used in the study

The tools used by the investigator were

1. Style of learning and thinking (constructed and standardized by Venkataraman. D, 1984)
2. Quantitative aptitude test (Constructed and standardized by investigator)

Statistical Techniques

To find out the association between different levels of brain dominance and different levels of quantitative aptitude among secondary school students, the inferential statistics, namely 'chi-square' was used. Result are presented in the table

Table 1: Association between different levels of brain dominance and different levels of quantitative aptitude among Secondary School students

Level of Quantitative aptitude	Brain Dominance							
	Right		Left		Whole		$\chi 2$	Result
	N	Exp N	N	Exp N	N	Exp N		
Low	40	52.32	21	12.96	19	14.72	16.65	Not significant 0.01 level
Medium	183	184.43	48	45.68	51	51.88		
High	104	90.25	12	22.36	22	25.39		

Discussion of Results

The $\chi 2$ value obtained ($\chi 2 = 16.65$) is less than the table value 20.090 at 0.01 level, so it is not significant at 0.01 level. This reveals that there exists no significant association between three levels (low, medium and high) of quantitative aptitude and three levels (Right, Left and whole) of brain dominance among secondary school students.

Findings of the Study

There is no significant association between different levels of Quantitative aptitude and Brain dominance

Educational Implications

Learning is meaningful, not when memorization is taking place, but when they could apply their knowledge to think and act in logical ways. Education should enable the child to become a complete person and perceive life in its entirety. The teachers instead of encouraging note learning should produce learning experiences that stimulated and channels the thinking skills of the students. It is necessary to reconstruct the learning environment around students learning styles as they have educational relevance and expression of the uniqueness of the individuals. So in order to carry out learning tasks successfully, it is important to provide multiple learning opportunities for students to suit their learning styles.

The awareness of hemispheric dominance and its relation with quantitative aptitude is remarkable endeavor to enrich teacher preparation in mathematical education. While the teacher can remove the difficulties towards mathematics, by adopting suitable method in order to favored learning and thinking styles of students. Teacher should give attention to divide the students at separate division according to their hemispheric dominance and give attention to employ teaching as logical for left hemispheric or creative for right hemispheric students.

References

1. Hyde, Daniel C, Winkler-Rhoades, Nathan; Lee, Sang-Ah; Izard, Veronique.
2. James WK. Biological psychology (fifth ed.). An international Thomson.
3. John PJP. Biopsychology, university of British Columbia. Aiiyn and Bacon publications.
4. John PJP. Biopsychology (third ed.) university of British Colombia.
5. John W, Best. Research in education. Prentice hall of India, pvt ltd.
6. Williams, Amanda S. Statistics Anxiety and Instructor Immediacy Journal of Statistics Education. 2010, 18(2).
7. Yves D. Hemisphericity of the brain and its consequences on education. Retrieved. 1997-2003. from http//www. Cauug.abca/brain hemis. Liland.
8. Zubair PP. Mathematics Education: Methods and Techniques. Heurisco Publications, 2008.