

## Impact of Hemispherical Preference of Adolescents on their History Performance

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### Abstract

Aim of the study is to investigate the impact of hemispherical preference of adolescents on their History performance. A sample of 160 adolescents was randomly selected from schools of Moga district of Punjab state. Style of Learning and Thinking scale constructed by Venkataraman and 10<sup>th</sup> class History marks were used in this study. Mean, S.D., SEM and t-test were used to analysis and interpretation of the data. The research showed that Left Hemisphere preferred adolescents and right Hemisphere preferred adolescents are similar in their History performance; and Left Hemisphere preferred male adolescents and left Hemisphere preferred female adolescents are also similar in their History performance

### INTRODUCTION

Often the terms like history of plants History is just "man - history" the term history is derived from the Greek word historic which means information or an enquiry designed to elite truth, story is just a shortened from of the same word. "History has always been what human beings thought about the past is still each of us things about the past and in this sense has all way been of creation of the past" Henry Johnson. History is used then the meaning of the word is history of man. History in its broader sense is an every things or events that ever happened. It is past, itself whatever that may be, but the past cannot be observed directly. What is known about it must be learned from such traces of former conditions and event as time and chance and the foresight of man may have preserved.

The study relating brain dominance to English performance was mainly anchored on Sperry's (1977) spat brain model of intelligence which pasts that two hemisphere of human brain have different function. Sperry said that the left brain emphasize languages, mathematical formulae, logic, number, sequence analysis and word of a song on the other hand the right brain emphasize forms and pattern spatial manipulation rhythm and musical appreciation image picture imagination, dimension and tune of a song. Gadzell (1999) Found that lift hemispheric group have better leadership qualities than the right hemispheric group. Tendero, J.B. (2012) found the hemispheric dominance was not significantly related to their English language performance and their Creativity level. Neither the left nor the right hemisphere can be claimed to be better or less able than the other in achievement. Kumar, M. (2013) found that right hemisphere preferred adolescents are more academic achievers than left hemisphere preferred adolescents. Kaur,F.L. and Singh, T. (2015) found the result revealed that there was no significant relationship between spiritual intelligence and brain hemispheric dominance of students teachers and there was no significant inter factional effect of brain hemispheric dominance and gender on spiritual intelligence of student teachers. Kaur,M. (2015). found right hemisphere preferred adolescents and left hemisphere preferred adolescents are similar in their English language performance and also found right hemisphere

preferred male adolescents and right hemisphere preferred female adolescents are similar in English Language performance.

### **OBJECTIVES OF THE STUDY**

1. To find out the difference between right hemisphere preferred and left hemisphere preferred adolescents on their history performance.
2. To find out the difference between right hemisphere preferred male and right hemisphere preferred female adolescents on their history performance.
3. To find out the difference between left hemisphere preferred male and left hemisphere preferred female adolescents on their history performance.
4. To find out the difference between right hemisphere preferred rural and right hemisphere preferred urban adolescents on their history performance.
5. To find out the difference between left hemisphere preferred urban and left hemisphere preferred rural adolescents on their history performance.

### **METHODOLOGY**

In the present study, Descriptive survey method was employed.

### **SAMPLE**

In order to achieve the objective stated earlier and to test the corresponding hypotheses, a sample of 160 adolescent students of Moga district of Punjab state was planned.

### **DEPENDENT VARIABLE**

- The dependant variable is History performance.

### **INDEPENDENT VARIABLE**

- Hemispherical preference of adolescents has been included as independent variable.

### **DEMOGRAPHIC VARIABLES**

- Gender
- Residence

### **TOOLS TO BE USED**

- Style of learning and thinking (SOLAT) by Venkataraman.
- History Performance: Total marks in History subject obtained by the subject in the annual examination of 10<sup>th</sup> class.

**STATISTICAL TECHNIQUES USED** The statistical techniques were employed to concise picture of the data, so that it can be easily comprehend. It was employed to test the hypotheses in the study. Mean, S.D., S.Em and t-test were calculated in the present study.

### **ANALYSIS AND INTERPRETATION OF HYPOTHESES:**

#### **HYPOTHESIS- 1**

There is no significant difference between Right hemisphere preferred and left hemisphere preferred adolescents on their history performance.

**Table 1**

**Mean, S.D., S.E.m and t-value of History performance of Right Hemisphere and left Hemisphere preferred adolescents.**

Variable	N	Mean	S.D	S.E.m	t - value	level of Significance
Right	72	30.41	6.25	0.54	0.1	Null
Left	88	30.11	5.14	0.73		

$P < 0.05 = 1.98$ ,  $P < 0.01 = 2.61$  at  $df = 158$

This table shows that t- value ( 0.1) is less than the table value at both level of significance i.e. 0.05 and 0.01 at df. ( 158). So the null hypothesis, "There is no significant difference between Right Hemisphere and left Hemisphere preferred adolescents on their history performance" is accepted. Hence, it may be conclude that left hemisphere preferred adolescents and right hemisphere preferred adolescents are similar on their history performance.

**Hypothesis- 2**

There is no significant difference between left Hemisphere preferred male and left Hemisphere preferred female adolescents on their history performance.

**Table 2**

**Mean , S.D. , S.E.m and t-value of History Performance of left Hemisphere preferred male and left Hemisphere preferred female adolescents.**

Variable	N	Mean	SD	S.E.m.	t-value	level of Significance
Left male	53	29.71	6.53	0.90	0.27	Null
Left female	50	27.6	5.59	0.79		

$P < 0.05 = 1.98$ ,  $P < 0.01 = 2.61$  at  $df = 101$

This table shows that t- value ( 0.27) is less than the table value at both levels of significance i.e. 0.05 and 0.01 at df (101). So the null Hypothesis "There is no significant difference between left Hemisphere preferred male and left Hemisphere preferred Female adolescents on their History performance" is accepted. Hence it may conclude that left Hemisphere preferred male adolescents and left hemisphere preferred Female adolescents are similar on their History performance.

**Hypothesis- 3**

There is no significant difference between left Hemisphere preferred urban and left Hemisphere preferred rural adolescents on their History performance.

**Table 3.**

**Mean, S.D. ,S.E.m and t-value of History Performance of left Hemisphere preferred urban and left Hemisphere preferred Rural adolescents.**

Variable	N	Mean	SD	S.E.m	t- value	level of Significance
Left urban	27	32.40	4.85	0.93	0.18	Null
Left rural	61	29.04	4.27	0.54		

$P < 0.05 = 1.98$  ,  $P < 0.01 = 2.61$  at  $df = 86$

This table shows that the t- value ( 0.18) is less than the table value at both levels of significance at  $df$ . ( 86). So the null hypothesis "There is no significant difference between left Hemisphere preferred urban and left Hemisphere preferred Rural adolescents on their history performance" is accept. Hence it may be concluded that Left Hemisphere preferred urban adolescents and left Hemisphere Rural adolescents are similar in their history performance.

#### Hypothesis- 4

There is no significant difference between Right Hemisphere preferred urban and Right Hemisphere Preferred Rural adolescents on their History Performance.

**Table 4**

**Mean, S.D. S.E.m and t-value of History Performance of Right Hemisphere Preferred urban and Right Hemisphere preferred Rural adolescents.**

Variables	N	Mean	SD	S.E.m	t-value	level of Significance
Right Urban	26	31.53	0.48	0.09	0.08	Null
Right Rural	60	30.25	5.03	0.64		

$P < 0.05 = 1.98$  ,  $P < 0.01 = 2.61$  at  $df = 84$

This table shows that the t- value ( 0.08) is less than the table value at both level of significance at  $df$  ( 84). So the null Hypothesis "There is no significant difference between right Hemisphere preferred urban and Right hemisphere preferred Rural adolescents on their History performance", is accept. Hence it may be concluded that Right Hemisphere preferred urban adolescents and Right Hemisphere preferred Rural adolescents are similar in their history Performance.

#### Hypothesis- 5

There is no significant difference between Right Hemisphere preferred male and left Hemisphere preferred female adolescents on their History performance.

**Table 5**

**Mean , S.D., S.E.m and t-value of History performance of Right Hemisphere preferred male and left Hemisphere Preferred female adolescents**

Variable	N	Mean	SD	S.E.m	t- value	level of Significance
Right male	32	27.81	6.10	1.08	0.80	Null
Left female	33	32.57	4.60	0.08		

$P < 0.05 = 1.96$  ,  $P < 0.01 = 2.61$  at  $df = 63$

This table shows that the t- value ( 0.80) is less than the table value at both level of significance at both the level of significant at df ( 63). So the null Hypothesis "There is no significant difference between right hemisphere male and left hemisphere preferred female adolescent on their History Performance" is accept. Hence it may be concluded the Left Hemisphere preferred female adolescents and right Hemisphere preferred male adolescents are similar in their history performance.

## **MAJOR FINDINGS, DISCUSSION AND IMPLICATIONS OF THE RESULTS**

### **Major Findings**

- F-1 Left Hemisphere preferred adolescents and right Hemisphere preferred adolescents are similar in their History performance.
- F-2 Left Hemisphere preferred male adolescents and left Hemisphere preferred female adolescents are similar in their History performance.
- F-3 Left Hemisphere preferred urban adolescents and left Hemisphere preferred rural adolescents are similar in History performance.
- F-4 Right Hemisphere preferred urban adolescents and right Hemisphere preferred rural adolescents are similar in their History performance.
- F-5 Left Hemisphere preferred female adolescents and right Hemisphere preferred male adolescents are similar in their History performance.

### **Discussion of the Results.**

Present study revealed that there is no significant difference between Right Hemisphere and Left Hemisphere preferred adolescents on their History performance.

Diane (1983) conducted a study on hemispheric dominance pattern and reading achievement. He found that neither children with predominantly left nor right hemispheric dominance pattern were significantly great in achievement. Mohansundaram and Kumar, (2000). conducted a study on Hemisphericity and achievement of class XI studying History in Higher secondary school. He found that there was no significant difference left and right integrated Hemisphere dominance. Tendero, (2012). found the Hemispheric dominance was not significantly related to their English language performance and their creativity level.

### **Educational Implications**

The present study makes an initial effort on History performance in relation to their style of learning and thinking. Despite its limitations it has significant implications for some important areas of education. The findings may be particularly for educational planner, demographic, teachers psychologists, physiologist's neurologists, administrators, policy make and teacher educators. The most of the goals for every institution of school education is academic development.

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