

A STUDY ON PERFORMANCE OF LEFT BRAIN DOMINANT HIGHER SECONDARY STUDENTS IN OLIGARCHIC THINKING

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Abstract

This present study intends to find the oligarchic thinking style of left brain dominant higher secondary students of Tirunelveli, Thuthukudi, Kanyakumari and Virudhunagar districts in Tamilnadu, India. In this survey study, population consists of 743 higher secondary students were comes under the left brain dominant. In this study the investigator examined the oligarchic thinking style of left brain dominant higher secondary students. Left brain dominant people were identified by used the tool by Loren D. Crane (1989) the alert scale of cognitive style. Thinking styles scale developed by Robert J. Sternberg (2009), adapted by the investigator and necessary instructions were given to every student before they asked to do the questionnaire. The scoring was done according to the scoring scheme and the formulated hypotheses were tested using by appropriate statistical techniques like percentage analysis, t – test, ANOVA, Chi-square and regression. The findings indicate that the level of oligarchic thinking style of left brain dominant higher secondary students is moderate and there is no significant difference between gender, resident and standard. There is no significant difference among type of schools of the left brain dominant higher secondary students and their monarchic thinking style. There is no significant association between districts and their oligarchic thinking of left brain dominant higher secondary students. There is significant influence of left brain dominant on oligarchic thinking style of the higher secondary students.

Keyword: left brain dominance oligarchic thinking style higher secondary students

1.INTRODUCTION

One of the salient features of our national policy on education (NPE 2019) act is to produce new curricular and pedagogical structure with 5+3+3+4 design covering the children in the age group 3-18 years. It focuses on the restructuring the academic of the schools. Here, the investigator taken the study entitled as a study on performance of left brain dominant higher secondary students in oligarchic thinking. Because, without brain nothing will happen; In the school going stage, especially in 15-18 year old students who have been studying higher secondary class who are going to face public exam. Even though they may have the experience about their public exam from SSLC, this exam must have a tough one regard to academic pressure. They are in the important academic stage which decides the higher education of the individuals. If they got high score they can easily get the professional seat from the reputed organization. So, their thinking patterns from their brain play a vital role. In this study the investigator examine any impact of left brain on oligarchic thinking of the higher secondary students.

2.NEED AND SIGNIFICANCE OF THE STUDY

When we compare right and left brain, left brain has some unique characteristic features i.e., familiar to know objects' names, acted as reality based, approach the solution by practical ways instead of risk taking, it wanted to secure and safe in all ways. Perception about particular things which may be a problems or a puzzle or a big picture by a sequential order or create the unique and special pattern creatively for approach math and science subjects as creating innovative way or creating short cur for the mathematical problems and any other interesting situations. Everything will be as a

detail oriented even if it is a minor thing. Logically think and act according to that view and approach the concept. This is purely by the left brain and this left brain or the right brain cannot transfer their unique features from one lobe to another i.e., left to right brain or right to left brain (Hellige 1993). In thinking styles, oligarchic thinking is one of the dimension of it and the term oligarch literally means a group of powerful individuals who has considerable influence in governance and connotatively in this context of oligarchic thinking style it in essence refers to a thinking pattern of a certain group of individuals who are motivated and governed by several, more than one, competing goals of equally perceived importance, contrary to monarchic thinking style individuals who are motivated by a single goal. Even many attempts have been made on this brain and the thinking style; so this study has been unique as left brain dominant and oligarchic thinking style of the higher secondary students from the other.

3. TITLE OF THE STUDY

A study on performance of left brain dominant higher secondary students in oligarchic thinking

3.1. Operational Definitions of key Term

1. Left brain dominance refers one who uses the extreme level of their left lobe.
2. Oligarchic thinking refers to a thinking pattern of a certain group of individuals who are motivated and governed by several, more than one.
3. Higher secondary students refer to students those who are studying XI and XII standard in higher secondary schools.

4. METHODOLOGY

Survey method was employed in this study. The investigator adopted the Alert scale of cognitive style by Loren D Crane (1989) and thinking style by Robert J Sternberg (2009) for left brain dominance and oligarchic thinking style respectively. 2000 higher secondary students were selected from Tirunelveli, Thuthukudi, Kanyakumari and Virudhunagar districts, Tamilnadu, India as sample with the help of random stratified technique, among them 743 were left brain dominant

students. Level, Mean, ANOVA and regression were used in this study as analyzing the data.

5. ANALYSIS OF DATA

5.1. Objective testing

1. To find out whether there is any significant difference between left brain dominant male and female students in their oligarchic thinking style.
2. To find out whether there is any significant difference between left brain dominant students from hostel and home in their oligarchic thinking style
3. To find out whether there is any significant difference between left brain dominant XI and XII standard students in their oligarchic thinking style
4. To find out whether there is any significant difference among government, aided and private school left brain dominant students in their oligarchic thinking style
5. To find out whether there is any significant influence of left brain dominance on oligarchic thinking style of the higher secondary students.

5.2. Hypotheses testing

1. There is no significant difference between left brain dominant male and female students in their oligarchic thinking style.
2. There is no significant difference between left brain dominant students from hostel and home in their oligarchic thinking style
3. There is no significant difference between left brain dominant XI and XII standard students in their oligarchic thinking style
4. There is no significant difference among government, aided and private school left brain dominant students in their oligarchic thinking style
5. There is no significant influence of left brain dominance on oligarchic thinking style of the higher secondary students.

Table 1: Level of oligarchic thinking style of left brain dominant higher secondary students

Oligarchic thinking style of left brain dominant students					
Low		Moderate		High	
N	%	N	%	N	%
179	24.1	422	56.8	142	19.1

It is inferred from the above table reveals that 24.1% of the left brain dominant students have low and 56.8% of them have moderate and 19.1% of them have high level in their oligarchic thinking style

Table 2: Level of Monarchic thinking style of left brain dominant higher secondary students with regard to gender, standard and medium of instruction

Background Variables	Categories	Low		Moderate		High	
		N	%	N	%	N	%
Gender	Boys	80	24.2	183	55.5	67	20.3
	Girls	99	24.0	239	57.9	75	18.2
Standard	XI	98	26.8	198	54.1	70	19.1
	XII	81	21.5	223	59.3	72	19.1
Medium of instruction	Tamil	137	23.2	341	57.7	113	19.1
	English	42	27.6	81	53.3	29	19.1

The above table reveals that 20.3% of the left brain dominant boys and 18.2% of the left brain dominant girls have high level in their oligarchic thinking style, and 19.1% of the left brain dominant XI and XII standard and Tamil and English medium students have high level in their oligarchic thinking style.

5.3. Hypotheses testing

Ho1: There is no significant difference between left brain dominant male and female students in their oligarchic thinking style.

Table 3: Difference between left brain dominant male and female students in their oligarchic thinking style

Gender	N	Mean	S.D	Calculated 't' value	Table 't' value	Remarks At 5% LoS
Male	330	2.89	0.401	1.14	1.96	NS
Female	413	2.85	0.446			

It is inferred from the above table that the mean score of the left brain dominant male students and the left brain dominant female students were found to be 2.89 and 2.85. The calculated 't' value (1.14) is lesser than the table value (1.96) at 5% level of significance. Therefore, the null hypothesis is accepted and it is concluded that there is no significant difference between left brain dominant male and female students in their oligarchic thinking style.

Ho2: There is no significant difference between left brain dominant home and hostel students in their oligarchic thinking style.

Table 4: Difference between left brain dominant home and hostel students in their oligarchic thinking style

Residence	N	Mean	S.D	Calculated 't' value	Table 't' value	Remarks At 5% LoS
Home	556	2.88	0.406	0.972	1.96	NS
Hostel	187	2.84	0.482			

It is inferred from the above table that the mean score of the left brain dominant home and hostel students were found to be 2.88 and 2.84. The calculated 't' value (0.972) is lesser than the table value (1.96) at 5% level of significance. Therefore, the null hypothesis is accepted and it is concluded that there is no significant difference between left brain dominant home and hostel students in their oligarchic thinking style.

Ho3: There is no significant difference between left brain dominant XI and XII standard students in their oligarchic thinking style.

Table 5: Difference between left brain dominant XI and XII standard students in their oligarchic thinking style

Standard	N	Mean	S.D	Calculated 't' value	Table 't' value	Remarks At 5% LoS
XI	366	2.87	0.433	0.113	1.96	NS
XII	376	2.87	0.433			

It is inferred from the above table that the mean score of the left brain dominant XI and XII standard students were found to be 2.87 and 2.87. The calculated 't' value (0.113) is lesser than the table value (1.96) at 5% level of

significance. Therefore, the null hypothesis is accepted and it is concluded that there is no significant difference between left brain dominant XI and XII standard students in their oligarchic thinking style.

Ho4: There is no significant difference among government, aided and private school left brain dominant students in their oligarchic thinking style.

Table 6: difference among government, aided and private school left brain dominant students in their oligarchic thinking style

Oligarchic Thinking style	Source of Variation	SS	MS	Table value at 5% LoS at df 2,738	Calculated 'F' Value	Remarks
	Between groups	0.304	0.52	2.99		
	Within groups	134.73	0.183			

It is inferred from the above table that there is no significant difference among government, aided and private school left brain dominant students in their oligarchic thinking style. The calculated F value (0.833) is lesser than the table value (2.99) at 5% level of significance. Therefore the null hypothesis is accepted.

Ho5: There is no significant influence of left brain dominance on oligarchic thinking style of higher secondary students.

Table 7: Influence of left brain dominance on oligarchic thinking style of higher secondary students

Variables	Brain Dominance	Oligarchic thinking style	Multiple Correlation	Calculated 'F' Value	Remarks
Brain dominance	1	0.156	0.024	18.57	S
Oligarchic thinking style	0.156	1			

(At 5% level of significance, for (1,741) df, the table value of 'F' is 3.85)

It is inferred from the above table that there is significant influence of left brain dominance on oligarchic thinking style of the students. The calculated F value (17.67) is higher than the table value (3.85) at 5% level of significance. Therefore the null hypothesis is rejected.

6.FINDINGS AND DISCUSSION

The findings of this study indicate a general impression that the level of oligarchic thinking style of left brain dominant higher secondary students is average. The findings show that 20.3% of boys and 18.2% of the girls have high level in their hierarchical thinking style. 19.1% of XI and XII standard students have high level in their oligarchic thinking style. 19.1% of the Tamil and English medium students have high level in their oligarchic thinking. The result shows that there is no significant difference between left brain dominant male and female students in their oligarchic thinking style. Sood and Monika (2010) found that significant effect of gender with reference to certain thinking style, which is contradicted to this present study. Park et. al (2005) found that Korean non gifted students preferred executive oligarchic style; this study also contradicted with this current study. It is inferred from the findings that there is no significant difference between home and hostel left brain dominant students in their oligarchic thinking style. The result shows that there is no significant difference among nature of schools of left brain dominant students in their oligarchic thinking style. The following study from Gafoor, Kunnathodi & Lavanya, M (2008) found thinking styles of secondary school students based on parental income, parental education and socio-economic status are not significant which is also support the current study.

It is inferred from the findings that there is significant influence of left brain dominance on oligarchic thinking of the higher secondary students. This may be due to the fact that in general, most of the higher secondary students act sentimentally and emotionally. Besides the left brain dominance has a direct influence on oligarchic thinking style, it helps students to evaluate things guided by ethics and conscience of good. Left brain dominates, in general, in most of the cases of higher secondary students and this

is the reality. Besides the left brain dominance has a direct influence on oligarchic thinking for solving the problems because only a multiple and divergent thinking would be a great blessing and a source of support and a help to think out and solve problems of the students of all types. Hence is this influence.

- a. https://mhrd.gov.in/sites/upload_files/mhrd/files/Draft_NEP_2019_EN_Revised.pdf

7.CONCLUSION

By this present study, the investigator concluded the importance of conducting further study on impact of brain dominance on different thinking styles. However, related studies which are found most relevant and after 2005 only given as review of related literature in this present study. Even more studies conducted this topic in India and western countries, studies have been found from eastern countries and Middle East, Brain dominance has been explored by Indian scholars also. However, number of Indian research scholars also investigated research on brain dominance and thinking styles and also problem solving skills. Brain dominance influences thinking style especially left brain dominance influences the oligarchic thinking style. From this study and the availability of the related literature, the investigator feels a need to conduct more studies on these related topics.

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