

**THINKING STYLES OF HIGHER SECONDARY STUDENTS-AN ANALYSIS**

X. VENGO REGIS\*

P.ANNARAJA\*\*

Received: 30 Nov 2012

Accepted: 30 Dec 2012

**Abstract**

*This paper attempts to find out the level of thinking styles of higher secondary students. Thinking styles developed by Robert J. Sternberg (1997) was used to collect the data. 2000 higher secondary students were selected randomly for this study. The findings of the study revealed that the boys' are better than the girl's in their hierarchic, oligarchic and anarchic thinking styles. In district wise, Thoothukudi district students are better in hierarchic and oligarchic thinking styles.*

**Key words:** *Thinking Styles, Higher secondary*

**Introduction**

Thinking styles, an arena that has gained a considerable attention in these recent times, is used and applied in varying educational connotations. It depends on the brain dominance of an individual and its role in retaining and processing the magna of information in a distinctive and mysterious valiance is indispensable. Thinking styles are proclivities rather than abilities. They are the ways of directing the intellect which an individual finds comfortable. The brain dominance plays a vital role in thinking. It is foremost important for the teachers to focus their attention on student's favourite thinking styles before imparting the content of the subject. Failing to do so, may not guarantee the attainment of the prefixed learning exit outputs in the students, since it could be mismatching and may not be synchronizing with their thinking styles, an essential attribute of a successful learning. Teachers adopt their own personal thinking styles in adopting the method of teaching and this

would be largely beneficial to those students who have that same thinking styles and the other segment of students are bound to be at learning huddles. As it is possible to teach subject in that is compatible with any style of learning, students will seek teaching and learning activities at higher secondary level that are compatible with their own preferred styles like monarchic, hierarchic, oligarchic and anarchic thinking styles. Exploring the most preferred thinking styles of the students by the teachers will make teaching-learning effective.

Sternberg has described the forms of thinking styles in four different modes, namely monarchic, hierarchic, oligarchic, and anarchic. The *Monarchic* “is someone who is single-minded and driven”. These individuals are focused on solving problems. *Hierarchic* individuals set priorities and understand that not all goals can be fulfilled. *Oligarchic* people can multitask but struggle with how to organize their priorities. *Anarchic* individuals are motivated by their specific needs and construct their own systems rather than follow established systems (Sternberg, 1997)

Thinking styles like monarchic, hierarchic, oligarchic and anarchic thinking styles are not fixed, but changeable. As experts, the teachers need to recognize the preferred thinking styles of students. The effort to understand thinking styles and learn to use them flexibly requires the identification of an individual’s preferred style of learning and thinking. Research tools are readily available to identify the individuals’ preferred thinking styles (Robert J Sternberg, 1997), according to the thinking styles the teachers must eventually come forward to understand and identify the thinking styles of the students. This direct approach will help the learners to developing intelligence and creativity in the fields of their preferred styles in academic areas.

### **Review of related literature**

Nian-Shing Chen et.al. (2011) showed that the learners were classified into fit or non-fit group in order to analyze whether there was a good fit between the teaching strategies designed by the teacher and the thinking styles of learners. Chiara Manfredi et.al (2011) conducted a study on temperament and parental styles as predictors of ruminative brooding and worry. The result showed that a temperament characterized by high levels of harm avoidance or high levels of reward dependence may facilitate the tendency to use worry or ruminative brooding, respectively, and that a parental style characterized by high control and protectiveness is an independent risk factor for the development of both types of recurrent negative thinking. Karina Wahl et.al.(2011) showed that understanding the interaction between rumination and obsessional thinking might help to further elucidate the role of

cognitive vulnerability factors in OCD and to expand cognitive and metacognitive models of OCD. Li Fang Zhang and Yun Feng He (2011) result showed that after the variables gender and academic discipline were controlled for, creativity-generating styles positively contributed to psychosocial development and that norm-favouring styles negatively contributed to psychosocial development.

### **Significance of the study**

Educating the child leads to gain knowledge about everything to feel the rain of happiness by removing all the pains from the social faces in all the vain of life. So it is the main process to draw the line of the education in their plane of life to make them to feel one with other, to realize all the evils of the society, to know the reasons for the evils, and way to overcome the problems of his own and society.

Based on the four forms the investigator has to find out the thinking styles of higher secondary students and from that they can acquire the knowledge of skill based education so that they can become effective individual in the society. The higher secondary stage is very important as it determines the future of the students and so the investigator attempts to find out the thinking styles of higher secondary students.

### **Objectives of the study**

1. To find out the level of thinking styles of higher secondary students.
2. To find out whether there is any significant difference between male and female higher secondary students in their thinking styles.
3. To find out whether there is any significant difference among Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar districts higher secondary students in their thinking styles.

### **Null hypotheses**

- (i) There is no significant difference between boys and girls higher secondary students in their thinking styles.
- (ii) There is no significant among Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar districts higher secondary students in their thinking styles.

### **Method**

The survey method of research has been used in the present study.

### **Sample**

The investigator used the stratified random sampling technique for selecting the sample. The investigator selected higher secondary students from Tirunelveli, Thoothukudi,

Kanyakumari and Virudhunagar districts. The sample consists of 2000 higher secondary students.

**Tool used for the present study**

Thinking styles inventory by Sternberg (1997) was used for this present study.

**Statistical techniques used**

Percentage analysis, t-test and F-test were used for analyzing the data.

**Table 1**  
**Level of thinking styles of higher secondary students**

THINKING STYLES	Low		Moderate		High	
	N	%	N	%	C	%
Monarchic thinking style	408	20.4	1168	58.4	424	21.2
Hierarchic thinking style	394	19.7	1108	55.4	498	24.9
Oligarchic thinking style	479	24	1121	56	400	20
Anarchic thinking style	396	19.8	1247	62.4	357	17.8

20.4% of the higher secondary students have low, 58.4% of them have moderate and 21.2% of them have high level of monarchic thinking style.

19.7% of the higher secondary students have low, 55.4% of them have moderate and 24.9% of them have high level of hierarchic thinking style.

24% of the higher secondary students have low, 56% of them have moderate and 20% of them have high level of oligarchic thinking style.

19.8% of the higher secondary students have low, 62.4% of them have moderate and 17.8% of them have high level of anarchic thinking style.

**Table 2**  
**DIFFERENCE BETWEEN BOYS AND GIRLS HIGHER SECONDARY STUDENTS IN THEIR THINKING STYLES**

THINKING STYLES	Boys (N=931)		Girls (N=1069)		Calculated 't' value	Remarks
	Mean	S.D	Mean	S.D		
Monarchic thinking style	31.43	6.03	30.93	6.23	1.82	NS
Hierarchic thinking style	30.42	6.45	29.67	6.42	2.59	S

Oligarchic thinking style	27.84	6.40	27.22	6.39	2.19	<b>S</b>
Anarchic thinking style	29.50	6.06	28.74	5.97	2.80	<b>S</b>

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between boys and girls higher secondary students in their monarchic thinking style. But there is significant difference between boys and girls higher secondary students in their hierarchic, oligarchic and anarchic thinking styles. The boys' higher secondary students are better than the girl's higher secondary students in their hierarchic, oligarchic and anarchic thinking styles.

**Table 3**

**DIFFERENCE AMONG HIGHER SECONDARY STUDENTS FROM TIRUNELVELI, THOOTHUKUDI, KANYAKUMARI AND VIRUDHUNAGAR DISTRICTS IN THEIR THINKING STYLES**

<b>THINKING STYLES</b>	<b>Source of Variation</b>	<b>SS</b>	<b>MS</b>	<b>Calculated 'F' Value</b>	<b>Remarks</b>
Monarchic thinking styles	Between Groups	466.092	155.364	4.12	<b>S</b>
	Within Groups	75103.980	37.627		
Hierarchic thinking styles	Between Groups	537.242	179.081	4.32	<b>S</b>
	Within Groups	82609.876	41.388		
Oligarchic thinking styles	Between Groups	364.868	121.623	2.97	<b>S</b>
	Within Groups	81731.004	40.947		
Anarchic thinking styles	Between Groups	551.273	183.758	5.09	<b>S</b>
	Within Groups	71985.102	36.065		

(At 5% level of significance, for (3, 1996) df, the table value of 'F' is 2.60)

It is inferred from the above table that there is significant difference among higher secondary students from Tirunelveli, Thoothukudi, Kanyakumari and Virudhunagar districts in their monarchic, hierarchic, oligarchic and anarchic thinking styles.

Post ANOVA test revealed that Virudhunagar district students are better in monarchic and anarchic thinking style; Thoothukudi district students are better in their hierarchic and oligarchic thinking style.

**FINDINGS AND DISCUSSION**

The present study reveals that 58.4% of higher secondary students have moderate monarchic, 55.4% have moderate hierarchic, 56.0% have moderate oligarchic and 62.4%

have moderate anarchic style of thinking. This implies the truth that majority of the high school students have moderate level of thinking styles and the reason underlying for this state could be attributed to lack of training in thinking styles.

The statistical analysis of the study reveals 21.2% higher secondary students have high level of monarchic thinking style; 24.9% have high level of hierarchic thinking style; 20% have high level of oligarchic thinking style; and 17.8% have high level of anarchic thinking style and this suggests that there is a need to increase these styles of thinking still among the students.

The 't' test result shows that there is significant difference between boys and girls in their hierarchic, oligarchic and anarchic thinking styles and in all these thinking styles boys are found to be better than girls and this may be due to the fact that the boys have got wider exposure in all aspects of life.

The 'F' test result shows that there is significant difference among Tirunelveli, Thoothukudi, and Kanyakumari and Virudhunagar district students. Post ANOVA test reveals that Virudhunagar district students are better in monarchic and anarchic thinking styles and this may be due to the fact Virudhunagar is located in a tropical climatic condition and people thrive primarily out of cottage based industries and these working climate and culture makes them to decide on their own and go ahead amidst enduring challenges that confuse their daily eke outs owing to available multi semi-skilled earning opportunities tending to be rather confusing and anarchic in the sense of opting to choose the right and prosperous job; Thoothukudi district students are better in their hierarchic and oligarchic thinking styles and this may be due to the fact that Thoothukudi is a coastal city facing a swift growth in shipping industry opening a disposal of bounteous promotion hope-giving working possibilities in professional and non-professional, skilled and semi-skilled and private and public sectors kindling a drive to hierarchically march forward in the extensively availing oligarchic multiple competing opportunities.

On the whole, the statistically derived varying results prove the fact that each thinking style works effectively in its own way depending on many contingent factors.

## **Reference**

1. Meenakshisundaram (2007), Educational challenges in Indian society, Kavyamala publishers, Tamilnadu.

- a. Nagarajan (2009), Education in the emerging Indian society, Ram publishers, Chennai.
2. Robert j. Sternberg (1997) thinking style, Cambridge university press, New york, ISBN: 978-0-521-55316-2
3. <http://inlibnet.ac.in>
4. IJONTE, October, November,December 2011 volume: 2 issue: 4 article: 12 ISSN 1309-6249.
5. “A brief research report: Thinking styles of online distance education students” International Journal of Technology in Teaching and Learning. 2(1), 58-64.