

# IMMANUEL ARASAR COLLEGE OF EDUCATION



Palayamkottai, Manniyar, Kanyakumari District - 623 002

Approved by the Government of Tamil Nadu  
Recognized by the Council for Higher Education, Government of Tamil Nadu  
Affiliated to the Government of Tamil Nadu  
Established in the year 1982

*International Conference on*

## **Enhancement of Creativity in Learning : Applications of Innovative Pedagogy**

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**St. Xavier's College of Education**  
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**Palayamkottai - 627002**

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**International Conference on**

**Enhancement of Creativity in Learning :  
Applications of Innovative Pedagogy**

**9<sup>th</sup> & 10<sup>th</sup> MARCH 2017**

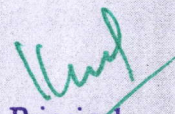
*Published by*

Mohammed Trust Publishers  
Ramanathapuram

ISBN : 978-81-928875-8-6


*Printed by*

Penguin Printers, Karungal.



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## THINKING STYLES OF B.ED. TRAINEES

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### ABSTRACT

*Man does not live by bread alone. He is endowed with the most unique power of creative thinking. He always wants to create something new. He is not a mechanical computer. He is blessed with the capacity to image and to think. It is rightly said that the survival of a democratic society intimately is linked to a people capable of making wise selections through thinking styles.*

**Key Words:** Thinking Styles, Reasoning, Creative thinking, Logical thinking

### Introduction

Learning gives creativity,  
Creativity leads to thinking,  
Thinking provides knowledge,  
Knowledge makes you great

Dr. AP. J. Kalam

Our abilities do not completely explain our performance in different situations. Individuals with equal abilities need not necessarily perform similarly in a given situation. These differences are due to the variation in using the abilities one possesses. People like to their abilities in different ways in different situations. Thinking styles are the preferred way of using abilities (Sternberg, 1997). While abilities describe what one can do, thinking styles show how one likes to use the abilities. In this article I would like to focus Thinking styles of B.Ed. trainees with reference to certain background variables such as Educational qualification, marital status, nature of college and order of birth.

### Significance of the study

Thinking is one of the important aspects of the teaching-learning process. Our ability to learn and solve the problems depends on our ability to think correctly. It helps in identifying a strong man and is

carefully, can contribute something worthwhile to the society. But one is not a born thinker. One has to learn to perceive. Learning to think is not an easy road. It requires the knowledge of the technique and practice of proper thinking.

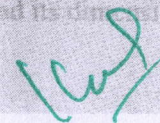
### Objectives of the study

The investigator has evolved the following objectives for her study:

1. To find out the level of thinking styles and its dimensions of B.Ed. trainees.
2. To find out the significant difference, if any, in the thinking styles and its dimensions of B.Ed. trainees in terms of educational qualification and marital status.
3. To find out the significant difference among, if any, in the thinking styles and its dimensions of B.Ed. trainees in terms of nature of college.
4. To find out the significant association, if any, in the thinking styles and its dimensions of B.Ed. trainees in terms of order of birth.

### Null hypotheses

1. There is no significant difference between UG and PG qualification B.Ed. trainees in their thinking styles and its dimensions.



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2. There is no significant difference between married and unmarried B.Ed trainees in their thinking styles and its dimensions.
3. There is no significant difference among women, coordination and non-coordination B.Ed trainees with reference to their thinking styles and its dimensions.
4. There is no significant association between order of birth of B.Ed trainees and their thinking styles and its dimensions.

**Methodology**

The investigator adopted the survey method to find out the thinking styles of B.Ed trainees.

**Population for the study**

The population for the present study consists of B.Ed trainees, who are studying in Tiruchirappalli, Tiruchendur and Kanyakumari districts.

**Sample for the study**

The investigator has used stratified random sampling technique for selecting the sample from the population. The sample was 1000 of B.Ed trainees were selected by simple random sampling technique.

**Tool used**

Thinking Styles Scale (TSS) was constructed and validated by the investigator and the guide (Flowerlet & Ismail, Alexander, 2015) and a General DSS was designed for the purpose.

**Data analysis**

The investigator has used mean, standard deviation, percentage analysis, Chi-square, T-test & ANOVA.

**Table 1**

**Level of thinking styles of B.Ed trainees**

[Grouping of Thinking styles]	Low		Moderate		High	
	n	%	n	%	n	%
Critical thinking	2	24	5	51	2	21
Creative thinking	1	27	3	56	2	27
Logical thinking	1	4	3	61	2	10
Problem solving	1	7	6	8	2	1
Decision making	0	0	0	0	4	4
Abstract thinking	1	18	6	57	1	11
Flexible thinking	1	7	5	21	2	8
Thinking styles	1	9	2	2	0	0

It is inferred from the above table that 24.2% of B.Ed trainees have low, 52.5% of them have moderate and 23% of them have high level of critical thinking.

27% of B.Ed trainees have low, 56.8% of them have moderate and 16% of them have high level of creative thinking.

4% of B.Ed trainees have low, 62.0% of them have moderate and 16% of them have high level of logical thinking.

7% of B.Ed trainees have low, 55.8% of them have moderate and 23.3% of them have high level of problem solving.

0% of B.Ed trainees have low, 58% of them have moderate and 21% of them have high level of decision making.

18.8% of B.Ed trainees have low, 57.3% of them have moderate and 11% of them have high level of abstract thinking.

78% of B.Ed. trainees have low level of their high academic and 22.2% of them have high level of thinking styles

Table 2

Difference between B.Ed. trainees with UG and PG qualification in their thinking styles and its dimensions

Thinking style	Mean	SD	Mean	SD	F-value	df	Significance level
Abstract thinking	4.2	0.8	4.5	0.7	0.1	1	0.75
Concrete thinking	3.8	0.9	4.1	0.8	0.2	1	0.62
Logical thinking	4.5	0.7	4.8	0.6	0.3	1	0.58
Intuitive thinking	3.9	1.0	4.2	0.9	0.4	1	0.53
Imaginal thinking	4.1	0.8	4.4	0.7	0.5	1	0.48
Pragmatic thinking	4.3	0.7	4.6	0.6	0.6	1	0.43
Artistic thinking	4.4	0.6	4.7	0.5	0.7	1	0.38
Technical thinking	4.6	0.5	4.9	0.4	0.8	1	0.33
Mathematical thinking	4.7	0.4	5.0	0.3	0.9	1	0.28
Scientific thinking	4.8	0.3	5.1	0.2	1.0	1	0.23

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

It is inferred from the above table that the difference in thinking styles between the B.Ed. trainees with UG and PG qualification is not significant. The mean scores for the thinking styles are also not significantly different for the UG and PG trainees. This indicates that the thinking styles of B.Ed. trainees are not significantly different based on their qualification. The results suggest that the thinking styles of B.Ed. trainees are not significantly different based on their qualification. The results suggest that the thinking styles of B.Ed. trainees are not significantly different based on their qualification.

While comparing the mean scores of B.Ed. trainees with MA (History/MA) and PG qualification (History/MA) it is inferred that the B.Ed. trainees with PG qualification have better critical thinking than the B.Ed. trainees with MA qualification.

Table 3

Differences between married and unmarried B.Ed. trainees in their thinking styles and its dimensions

Thinking style	Mean	SD	Mean	SD	F-value	df	Significance level
Abstract thinking	4.5	0.7	4.8	0.6	0.1	1	0.75
Concrete thinking	4.2	0.8	4.5	0.7	0.2	1	0.62
Logical thinking	4.8	0.6	5.1	0.5	0.3	1	0.58
Intuitive thinking	4.3	0.9	4.6	0.8	0.4	1	0.53
Imaginal thinking	4.6	0.7	4.9	0.6	0.5	1	0.48
Pragmatic thinking	4.8	0.6	5.1	0.5	0.6	1	0.43
Artistic thinking	4.9	0.5	5.2	0.4	0.7	1	0.38
Technical thinking	5.1	0.4	5.4	0.3	0.8	1	0.33
Mathematical thinking	5.2	0.3	5.5	0.2	0.9	1	0.28
Scientific thinking	5.3	0.2	5.6	0.1	1.0	1	0.23

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

It is inferred from the above table that the calculated 't' value is less than the

table value (1.96) at 5% level of significance. Hence the respective null hypothesis is accepted. It shows that there is no significant difference between married and unmarried B.Ed. trainees in their thinking styles and its dimensions.

Table 4

**Difference among women, co-education and men college B.Ed. trainees with reference to their thinking styles and its dimensions**

Dimension	Group	df		F value	Sig. level at 5% level
		Female	Male		
Critical thinking	Co-educational	10	10	0.04	NS
	Women	10	10	0.04	NS
Creative thinking	Co-educational	10	10	0.11	NS
	Women	10	10	0.11	NS
Logical thinking	Co-educational	10	10	0.02	NS
	Women	10	10	0.02	NS
Problem solving	Co-educational	10	10	0.02	NS
	Women	10	10	0.02	NS
Decision making	Co-educational	10	10	0.02	NS
	Women	10	10	0.02	NS
Lateral thinking	Co-educational	10	10	0.02	NS
	Women	10	10	0.02	NS
Thinking styles	Co-educational	10	10	0.02	NS
	Women	10	10	0.02	NS

(At 5% level of significance, for (2, 1047) if the table value of 'F' is 3.00)

It is inferred from the above table that the calculated 'F' value is less than the table value (3.00) for df 2, 1047, at 5% level of significance in the dimensions of critical thinking, creative thinking, logical thinking, problem solving, decision making, lateral thinking and thinking styles. Hence the respective null hypothesis is accepted.

Table 5

**Association between order of birth of the B.Ed. trainees and their thinking styles and its dimensions**

Dimensions of Thinking styles	df	Calculated $\chi^2$ value	Remarks at 5% level
Critical thinking	6	3.191	NS
Creative thinking	6	3.169	NS
Logical thinking	6	5.649	NS
Problem solving	6	4.021	NS
Decision making	6	4.743	NS
Lateral thinking	6	9.910	NS
Thinking styles	6	4.503	NS

(At 5% level of significance, for 6 df the table value of  $\chi^2$  is 12.592)

It is inferred from the above table that the calculated  $\chi^2$  value is less than the table value (12.592) for df 6, at 5% level of significance in the dimensions of critical thinking, creative thinking, logical thinking, problem solving, decision making, lateral thinking and thinking styles. Hence the respective null hypothesis is accepted.

**Findings**

23.3% of B.Ed. trainees had a low level of critical thinking; 21.2% of them