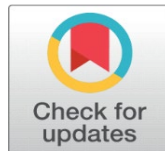


A STUDY OF THINKING STYLES OF PROSPECTIVE TEACHERS IN RELATION TO THEIR GENDER

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ABSTRACT

The present study aimed to explore the thinking styles of prospective teachers with respect to their gender. A total of 371 B.Ed. students (198 males and 173 females) from Dr. B.R. Ambedkar University, Agra, were selected through the accidental sampling method. The study adopted a normative survey research approach, and data were collected using the Thinking Style Inventory developed by Sternberg and Wagner. Thinking styles reflect an individual's preferred way of processing information and approaching tasks. Gender, being a fundamental social and biological factor, can influence these styles. The findings of the study revealed a significant gender difference in only one thinking style: the executive style. Female prospective teachers showed a greater tendency toward the executive style, which is characterized by preference for structured tasks, following rules, and working within established guidelines. This suggests that female prospective teachers may be more inclined to complete assigned duties in an organized and rule-bound manner. No significant gender-based differences were observed in the other thinking styles, which included legislative (creative and rule-making), judicial (analytical and evaluative), monarchic (single-goal oriented), hierarchic (multi-goal prioritization), oligarchic (equal attention to multiple goals), anarchic (random and flexible), global (big-picture focus), local (detail-oriented), internal (independent), external (collaborative), liberal (novelty-seeking), and conservative (tradition-following). The study highlights the nuanced influence of gender on cognitive preferences and underscores the need to consider such differences in teacher training programs for more effective educational practices.



1. INTRODUCTION

The World Bank Report Knowledge for Development (1999) emphasizes that knowledge is the key driver of growth and development, especially in developing countries. This development relies heavily on the enhancement of various types of thinking, including convergent (scientific) and divergent (creative) thinking. Thinking styles refer to an individual's preferred way of processing, organizing, and using knowledge and intellect [Zhang & Sternberg \(2000\)](#); [Sternberg \(2009\)](#). These styles shape how individuals approach learning, problem-solving, and decision-making tasks.

Research on thinking styles can be categorized into three broad approaches. The first group of studies investigates how thinking styles relate to personal variables like birth order, age, and socio-economic background. These studies

suggest that such variables may influence cognitive preferences. The second group explores the relationship between thinking styles and academic performance, psychological development, learning processes, and student growth. It highlights how specific styles can either support or hinder educational outcomes. The third group of studies examines the connection between thinking styles and other psychological constructs, such as Biggs' learning approaches and Holland's career personality types [Zhang & Sternberg \(2006\)](#). Recent research has also begun to focus on the relationship between thinking styles and technology use, particularly in the context of digital learning [Kao & Lei Sun, \(2007\)](#). Thinking styles not only influence cognitive processing but also affect behavior and emotions. [Sternberg \(1997\)](#) pointed out that traditionally, males were more associated with legislative and liberal thinking styles—those that value creating rules and exploring new ideas—while females were encouraged to adopt executive or conservative styles, which focus on following established rules. However, cultural shifts are challenging these traditional roles, promoting a more balanced and inclusive development of thinking styles across genders. Understanding and fostering diverse thinking styles is essential for personal and societal progress.

2. REVIEW OF RELATED LITERATURE

Some research Studies have been undertaken on gender differences in styles of thinking. For instance, [Mc, Carthy \(1980\)](#) reported that Both male and females preferred right style. The second choice was left for males and integrated for females. [Mc Golve \(1980\)](#) and [Levy \(1980\)](#) found that women students were superior in left hemispheric style and men in right hemispheric style. [Gilligan \(1982\)](#) observed that stereotypes about differences in thinking styles associated with gender are widely held in western society. [Raina and Vats \(1903\)](#) observed that Females had higher scores in right hemisphere style of thinking in comparison to males but the differences in mean scores was not statistically significant. [Gupta and Gupta \(1984\)](#) found that female tends to have more preference for integrated styles and males tended to possess more preference for right hemisphere styles at college. [Level Soliman \(1989\)](#) reported that males scored significantly higher than females on the right hemisphere styles, a female scored significantly higher than males on the integrated style of thinking. Some research Studies have been undertaken on gender differences in styles of thinking. For instance; [Mc, Carthy \(1900\)](#) reported that Both male and females preferred right style. The second choice was left for males and integrated for females. [Mc Golve \(1980\)](#) and [Levy \(1980\)](#) found that women students were superior in left hemispheric style and men in left hemispheric style. [Gilligan \(1982\)](#) observed that stereotypes about differences in thinking styles associated with gender are widely held in western society. [Raing and Vats \(1903\)](#) observed that Females had higher scores in right hemisphere style of thinking in comparison to males but the differences in mean scores was not statically significant. [Habenicht et al. \(1990\)](#) did not found any significant difference in styles of thinking of male and female students. [Manfort \(1990\)](#) Also did not observe any significant difference in the Styles of thinking of man and woman students. [Nah Carol \(1990\)](#) found that right hemisphere preference was associated with female. [Verma \(1994\)](#) reported that male students had greater inclination towards Left hemisphere style than female students. [Sale \(1997\)](#) found significant gender differences, men leaned more towards left brain dominating style than females. [Grigorenko and Sternberg \(1997\)](#) found that students styles of thinking did not Vary across sex variable. [Zhang & sachs \(1999\)](#) reported that man tended to be more global in their Sachs Style of thinking than women. [Zhana \(1999\)](#) conducted a study

on thinking style of university. Students in Hong Kong, the sex difference did not emerge as significant factor in thinking style [Mohan Sundaram and Kumargood \(2000\)](#) reported that female students tend to employ external Styles of thinking more than male student, However, on rest of the 92 Styles of thinking no significant differences were found between male and female students [Verma, Saroj \(2001\)](#) Gender differences Were observed in some thinking Style, Female Students scored significantly higher than male students on legislative and executive Style male students scored significantly higher than female Student on Monarchic style. [Kemaria & Vandana \(2004\)](#) found that there were no significantly Vandana differences in thinking styles of male and female Postgraduate Students of Second Sem. But in fourth Sem Students, Female were found to be significantly higher on Monarchic thinking Styles.

2.1. STATEMENT OF THE PROBLEM

The Problem of the study was stated as- "A Study of thinking styles of prospective teacher in relation to their gender".

2.2. OPERATIONAL DEFINITION OF THE TERMS

- 1) **Thinking Style:** In this study, thinking style refers to the preferred way an individual thinks or processes information, based on the use of specific mental abilities or cerebral hemispheres. It reflects how a person organizes, interprets, and applies knowledge in learning and problem-solving contexts.
- 2) **Gender:** Gender refers to the socially constructed roles, behaviors, characteristics, and expectations associated with being male or female. In the present study, gender is categorized as male and female, as per the official records of the B.Ed. colleges.
- 3) **Prospective Teachers:** Prospective teachers are individuals currently undergoing teacher education and training in B.Ed. programs at the secondary level. They are preparing to become professional educators in schools.

OBJECTIVE: To study the thinking styles of Prospective teachers in relation to their gender.

2.3. HYPOTHESES

There will be significant differences in different thinking styles of male and female, Prospective teachers.

3. METHODOLOGY

The present study employed the normative survey method of research. This method is widely used in educational research to gather data from a specific population and analyze the current status, opinions, or characteristics of that group. It helps in understanding the existing conditions and drawing generalizations from a large sample.

SAMPLE

The sample for the study consisted of 371 prospective teachers enrolled in B.Ed. colleges affiliated with Dr. B.R. Ambedkar University, Agra. The participants were selected using the accidental sampling technique. Among the total participants:

- 198 were male prospective teachers
- 173 were female prospective teachers

This diverse sample helped in studying the variations in thinking styles across gender lines within the teacher education context.

Table 1

Table 1 Stream and Gender Wise Structure of the Sample					
GENDER		STREAM		TOTAL	
MALE	FEMALE	SCIENCE	ARTS	COMMERCE	
198	173	193	106	72	371

3.1. VARIABLES INVOLVED

Two Types of variables used In the Study.

- 1) Independent Variables> Gender (Male/Female)
- 2) Criterion/Dependent variables- Thinking Styles (13 Types)

TOOLS: - used tool, in study.

- 1) **Thinking Style Inventory (Sternberg and Wagner):** This standardized inventory was used to assess the 13 different types of thinking styles. It is a well-established psychological tool designed to measure individual preferences in processing and applying knowledge. It helps in identifying how people plan, organize, and respond to learning and problem-solving tasks.
- 2) **Gender Data Collection:** Gender-related data of prospective teachers were collected with the help of records and official data available at the concerned B.Ed. colleges affiliated with Dr. B.R. Ambedkar University, Agra. This information was essential to categorize participants and analyze the impact of gender on various thinking styles.

3.2. STATISTICAL TECHNIQUES

The Data analyzed by one way analysis of Variance and "t" test. The Post hoc analysis is case Significant F-ratio done by 't' test.

4. RESULTS AND DISCUSSION

To test the hypo theses, 't' test of significant has been employed.

Table 2

Table 2 Significance of Difference Between Mean Scores of Legislative Style in Respect of Male and Female Prospective Teachers						
GROUP	N	MEAN	S.D	DF	"t" value	Significance
MALE	198	40.85	7.12	369	1.431	Insignificant
FEMALE	173	41.85	6.34			0.05level

“t” Value for legislative style is 1.431 that meaning these is no significant difference between male and female prospective teachers. Mean value for legislative style of female (M=41.85). Is hire than the mean value for male prospective teachers (M=40.85) But difference could not found to be significance. Hence both male female prospective teachers are similar on legislative style of thinking.

Table 3

Table 3 Significance of Difference Between Mean Scores of Excutive Style in Respect of Male and Female Prospective Teachers

GROUP	N	Mean	S. D	df	't' value	significance
MALE	198	40.36	6.76	3.69	3.56	Significant at 0.01 level
FEMALE	73	42.88	6.84			

“t” Value for Executive style of thinking has come out to be 3.56, which is significant at 0.01 Level of Probability. There is a significant difference between male and female prospective Teachers on Executive style. Mean value for female (M=42.20) is higher than mean Value formable (M=40.36) Prospective teacher respectively. Female is more dominant with regard to executive style in Comparison to male Prospective teachers. thus, reveal that 1 out of 13 't) values was found to be significant and remaining were found to be insignificant, 't' value was found significant for Executive style of Thinking (p=0.01). for rest of the thinking styles VIZ. Legislative, Judicial, Monarchic, Hierarchic, Oligarchic, Anarchic, Global, Local, Internal, External, Liberal and Conservative under male and female Prospective teachers does not Show any significant differentiation.

5. CONCLUSIONS

Conclusions flow from the analysis and interpretation of data. Pandey (1983) conclusion is kind of “summing up” on the fate of hypothesis tested by the research Male and female prospective teachers differed significantly only one thinking executive. Female prospective tended to be more executive than male prospective teachers in their style thinking. On remaining styles no significant differences between male and female prospective teachers were observed these styles were integrated, legislative, monarchic, hierarchic, oligarchic anarchic, global, local internal external liberal and conservative.

6. EDUCATIONAL IMPLICATION

Female Prospective teachers were found more executive than male prospective teachers and in their thinking styles, this fact may be used by education planners for Various developments. Classroom transactions, curriculum framing assignment designing may be based on thinking styles of prospective teacher &so that diversity in thinking styles of Prospective teachers maybe properly exploited for their development.

CONFLICT OF INTERESTS

None.

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