

## A Study of Cognitive Styles of Senior Secondary Students with Relation to Their Gender

Dr. Prerna Sharma

Associate Professor, Department of Education VMLG PG College, Ghaziabad

### Abstract

Cognitive style refers to the preferred way individual processes information. Unlike individual differences in abilities, which describe peak performance, styles describe a person's typical mode of thinking, remembering or problem solving. In teaching it is the most important variable affecting the students in academics. The present study is based on the cognitive styles of boys and girls of senior secondary students. Simple random sampling technique has been used to collect the sample. 50 boys and 50 girls of senior secondary school have been selected for the study purpose. For result analysis, the chi-square test has been used. Significant difference has been found between cognitive styles of Hence investigator feels that there is a need for the development of new instructional programs that could accommodate the unique styles of the individual students.

### Introduction

Cognitive style refers to the way a person thinks and processes information. Many of the most useful models of cognitive style place learners on a bi-polar scale. Cognitive style can be compared with cognitive ability, which refers to how good a person is at thinking and processing information. It can be described as a preferred tool for approaching a problem. Cognitive style reflects manner or mode of cognition which includes mental processing like thinking, perceiving, imagining, attending and the information processing by which the person acquires knowledge, solves a problem and makes future plan. It is a unique way in which an individual think, perceive and remember information. The cognitive style describes how an individual acquires knowledge (cognition) and processes information (conceptualization).

### Dimensions of Cognitive Style

#### Systematic Style

The systematic style is associated with logical, rational behavior that uses a well-defined step by

step approach to thinking, learning and overall plan for problem solving.

#### Intuitive Style

An individual who rates low on the systematic scale and high on the intuitive scale is described as having an intuitive style.

#### Integrated Style

A person with an integrated style rates high on both scale and is able to change styles quickly and easily.

#### Undifferentiated Style

An individual rating low on both the systematic and the intuitive scale is described as having undifferentiated cognitive behavior. Undifferentiated individuals tend to be withdrawn, passive and reflective and often look to others for problem-solving strategies.

#### Split Style

An individual rating in the middle range on both the systematic and the intuitive scale is considered to have a split style involving fairly equal (average) degrees of systematic and intuitive specialization.

## Need and Significance

The present study examines the above said dimensions and characteristic features of cognitive style and the various ways in which styles differ from one another and form intellectual abilities. We find individual differences among students mainly based on their intelligence, aptitudes, attitudes, interest and also based on their cognition and perception. These distinctions are integrated into a unified framework that serves to define cognitive styles in contrast not only to abilities but to other types of stylistic variables. Thus knowing cognitive styles majorly adopted by girls and boys students will help teachers in order to utilize relevant approaches to enhance meaningful and effective learning and also will be helpful for curriculum designers to design curriculum according to the needs of students of both boys as well as girls.

## Objectives of the study

### Major Objective

To study the types of cognitive styles that exists among boys and girls of senior secondary students.

### Sub Objectives

- To study the Systematic cognitive Style that exists among boys and girls of senior secondary school students.
- To study the Intuitive cognitive Style that exists among boys and girls of senior secondary school students.
- To study the integrated cognitive Style that exists among boys and girls of senior secondary school students.
- To study the undifferentiated cognitive Style that exists among boys and girls of senior secondary school students.
- To study the Split cognitive Style that exists among boys and girls of senior secondary school students.

## Hypothesis of the study

- There exists no significant difference in Systematic Cognitive Style among boys and girls of senior secondary students.

- There exists no significant difference in Intuitive Cognitive Style among boys and girls of senior secondary students.
- There exists no significant difference in Integrated Cognitive Style among boys and girls of senior secondary students.
- There exists no significant difference in Undifferentiated Cognitive Style among boys and girls of senior secondary students.
- There exists no significant difference in Split Cognitive Style among boys and girls of senior secondary students.

## Method of The study

In the current study Survey method has been used to explain the cognitive styles that exist among male boys and girls of senior secondary students.

## Population

12<sup>th</sup> class boys and girls students studying in schools of Ghaziabad.

## Sample

School	Boys	Girls	Total
1	25	25	50
2	25	25	50

## Tool used in study

Cognitive style inventory (CSI) constructed by Dr. Praveen Kumar Jha (2001).

## Findings of the study

Students	N	Systematic Style	Intuitive Style	Integrated Style	Undifferentiated Style	Split Style
Boys	50	6	7	10	18	9
Girls	50	18	10	7	7	8

The difference in cognitive style of boys and girls students is not by chance. It is found to be significant. Chi-square test of independence has been used to find out the difference among male and female students. The obtained chi-square test value was 33.22 which is greater than the table value 20.09 at 0.01 level. Hence the null-hypothesis is rejected. Thus, there is a significant difference between cognitive styles of senior

secondary students due to variation in their gender. Hence, investigator feels that there is need for the development of new instructional programs that could accommodate the unique styles of individual students.

Learners can be encouraged to think about their cognitive style and how it affects their learning by typing a quiz to identify their preferences. If they understand how they prefer to think then they can learn how to optimize their work in the classroom, and also try alternative ways.

## References

1. Alomyan, H.(2004). Exploration of instructional strategies and individual differences within the context of web-based learning: International Educational journal, 4(4) 86-91

2. Cao, yu.(2006). Effect of Field-dependent cognitive style cueing strategies on student's recall and comprehension. Dissertation Abstract International. Vol. 69. No. 3, p859- A.
3. Hasmi, M.A. Zeshan A, Khalid K. and Praveen Saleha (2012). A comparative analysis of basic cognitive Abilities among students with respect to gender. Journal of Educational Research. Vol.15, no. 2, 44p.
4. Gianluca Carnabuci and Balint Dioszegi. (2015). Social Networks, cognitive style and innovative performance: A contingency perspective. Academy of Management Journals. Vol. 58 (3), p881-905.
5. Richardson, Alan (2015) Verbalizer-visualize: A cognitive style dimension. Journal of Mental Imagery, Vol. 1, p109-125.