

# RELATIONSHIP OF COGNITIVE STYLE WITH ACADEMIC ACHIEVEMENT AMONG STUDENT TEACHERS

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## Abstract:

**Cognitive style or "thinking style" is a term used in cognitive psychology to describe the way individuals think, perceive and remember information. The School and teacher have a great extend for developing Cognitive Style. The present study is about to understand the Cognitive Style and Academic Achievement of student teachers in Coimbatore district of Tamilnadu. Simple random Sampling method is used to collect the sample. Three hundred and fifty student teachers from different types of Teacher Education Institutions were taken for the study. The findings of the study revealed that there is a significant correlation between Cognitive Style( Systematic and Intuitive style) and Academic Achievement of student teachers.**

**Key Words: Cognitive Style, Systematic Style, Intuitive style, Academic Achievement ,Student teachers**

## INTRODUCTION

Cognitive style or Thinking style could be a term utilized in cognitive Psychology to depict the way individuals think, see and keep in mind information. Within the setting of educator/teacher/educator, we are able to define it as the way instructors think, see and remember information with respect to the instructing and learning. Cognitive- styles may be as speculative/develop that has been created to clarify the method of intervention between stimuli and response. The term cognitive style alludes to the unconventional ways in which a person conceptually organizes the environment. It views that cognitive style refers to the way an individual filters and processes stimuli so that the environment take on psychological meaning.

According to Sellah et.al (2017) Cognitive style is a term used to describe the way individuals perceive, think and remember information. Cognitive styles as a concept is a component of a larger concept termed as

learning styles. Learning styles highlight characteristic cognitive, affective and psychomotor behaviours displayed by an individual as they learn. Learning styles provide an explanation for how any two learners who are taught the same concepts would differ in the way they learn as a result of various stimuli, including: environmental (e.g. noise, temperature and design); emotional (e.g. motivation and persistence); sociological (e.g. pairing and grouping); physical stimuli (e.g. auditory, visual or kinaesthetic); and psychological stimuli (e.g. global or analytic in approach, impulsive or reflective). Cognitive styles of an individual can be gauged from their response to physical and psychological stimuli, and have both internal and external features. Internally, they are structured contents of thought and experience in one's mind. Externally, they are outward expressions of thought in terms of flow of logic, arrangement of symbols (writings, drawings etc.), use of language and relations between these facets. Consequently, cognitive styles influence decisions and choices made by both the learner and the teacher during teaching and learning.

Cognitive style of a student teacher includes procurement of information and the mode of processing the information, thinking process in solving problems and organized way of communication. A student teacher as he or she is still a learner needs the cognitive style surrounded and defined in his mental structure so as to develop his or her aptitude required for making the correct milieu for learning and instructing. The 'cognition' is accidental and the 'learning' is goal-directed. These are complementary to each other. (Srinivasa Kumar & Nagaraju, 2014). Due to the importance of academic achievement in contemporary life and the predicative power of cognitive styles for academic achievement, the present research intends to examine the association between cognitive style (Systematic style and Intuitive style) and academic achievement of student teachers.

## STATEMENT OF THE PROBLEM

The statement of the present study is “**Cognitive Style and Academic Achievement of Studentteachers.**”

## OBJECTIVES OF THE STUDY

### HYPOTHESIS OF THE STUDY

- There is no significant relationship between cognitive style and academic achievement of students.

### VARIABLES OF THE STUDY

- The investigator has chosen the gender, Educational Qualification, Locality of Residence, type of Institution and Nature of Institution.

### METHOD OF THE STUDY

As the present study deals with Cognitive style and Academic Achievement of Student teachers in Coimbatore District, the investigator adopted the Survey method which was found suitable together the essential and relevant data.

### SAMPLE

For this present study 350 student teachers from Government, Government Aided and Self - Finance colleges of Coimbatore were selected as the sample for

- To find out the level of Cognitive Style and its dimensions of student teachers.
- To find out if there is any significant relationship between Cognitive style and Academic achievement of student teachers.

the study. Simple random Sampling method was used to collect the sample.

### TOOL USED FOR COLLECTING DATA

For collection of data the investigator used Cognitive Style Inventory (CSI) constructed and Standardized by Praveen Kumar Jha (2001). The CSI consists of 40 statements, half of which pertain to the systematic style and half to the intuitive style. Respondents evaluate each statement according to the degree to which they agree with it. Subsequently, the respondents transfer their responses to the scoring sheet, which yields a systematic score and an intuitive score. These scores are then transferred to the interpretation sheet, which allows them to determine to what degree they specialize in systematic and intuitive styles.

### STATISTICAL TECHNIQUES USED

The investigator used descriptive analysis for the preliminary analysis of the data. The t -test, ANOVA and Correlation were also used for analysis purpose.

### RESULTS AND DISCUSSION

#### 1.Level of Cognitive Style of Studentteacher

The table below gives the level of Cognitive Style of Student teachers.

**TABLE 1**  
**LEVEL OF COGNITIVE STYLE OF STUDENT TEACHERS**

S. No	Cognitive Style	Male N=44	%	Female N=306	%
1	High	25	56.8	109	35.6
2	Average	11	25	100	32.6
3	Low	8	18.1	91	31.6

The above table reveals the level of Cognitive Style of student teachers. 57 percent of Male and 36 percent Female student teachers have high level of Cognitive Style. Whereas 25 percent of Male and 33 percent female student teachers have average level of Cognitive Style. This result is in contrast with the study of Renjith (2014) who conducted ‘A study on cognitive style of prospective teachers in Malappuram’ found that 20% of the students are having high cognitive style, 65% medium, 15% low.

**2. Relationship between Systematic Cognitive Style and Academic Achievement of Student teachers with reference to background variables**

Table below reveals the relationship between Systematic Cognitive style and Academic Achievement of student teachers with reference to background variables.

**TABLE 2  
RELATIONSHIP BETWEEN SYSTEMATIC COGNITIVE STYLE AND ACADEMIC ACHIEVEMENT OF STUDENT TEACHERS WITH REFERENCE TO BACKGROUND VARIABLES**

S. No	Variables	Category	Systematic Style	
			r	Remarks
1	Gender	Male	0.477	S
		Female	0.47	S
2	Educational qualification	UG	0.02	S
		PG	0.079	S
3	Type of College	Government	0.14	S
		Aided	0.54	S
		Self Finance	0.64	S
4	Locality of residence	Rural	0.04	S
		Urban	0.07	S
5	Nature of College	Men	0.19	S
		Women	0.10	S
		Co-Education	0.10	S

There exists significant relationship between Systematic Cognitive Style and Academic Achievement of student teachers with reference to gender, academic qualification, locality of residence, type of college and nature of college whereas there is no relationship between Systematic Cognitive Style and Academic Achievement of student teachers having different Subject specialisation.

**3. Relationship between Intuitive Cognitive style and Academic Achievement of students teachers with reference to background variables**

Table below reveals the relationship between Intuitive Cognitive style and Academic Achievement of student teachers with reference to background variables.

**TABLE 3  
RELATIONSHIP BETWEEN INTUITIVE COGNITIVE STYLE AND ACADEMIC ACHIEVEMENT OF STUDENT TEACHERS WITH REFERENCE TO BACKGROUND VARIABLES**

S. No	Variables	Category	Intuitive Style
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			r	Remarks
1	<b>Gender</b>	Male	0.041	S
		Female	-0.024	NS
2	<b>Educational qualification</b>	UG	0.02	S
		PG	-0.01	NS
3	<b>Type of college</b>	Government	0.25	S
		Aided	0.56	S
		Self Finance	0.07	S
4	<b>Locality of residence</b>	Rural	-0.04	NS
		Urban	0.07	S
5	<b>Nature of college</b>	Men	0.12	S
		Women	0.003	S
		Co-Education	0.22	S

There exists significant relationship between Intuitive Cognitive Style and Academic Achievement of B. Ed students with reference to type of college and nature of college type of college and nature of college whereas there is no relationship between Systematic Cognitive Style and Academic Achievement of B. Ed students of different Subject specialisation, gender, academic qualification, locality of residence.

#### 4.Relationship between Cognitive Style and Academic Achievement of student teachers

Table below shows the relationship between Cognitive Style and Academic Achievement among student teachers .

**TABLE 4**

#### RELATIONSHIP BETWEEN COGNITIVE STYLE AND ACADEMIC ACHIEVEMENT AMONG STUDENT TEACHERS

<b>Cognitive style</b>	<b>r</b>
<b>Academic achievement</b>	<b>0.055</b>

From the above table the r value is positive. Hence the null hypothesis state that there is no significant relationship between Cognitive style and Academic Achievement is rejected, which reveals that there is significant relationship between Cognitive Style and Academic Achievement among student teachers.

#### MAJOR FINDINGS

- Student teachers from urban area had higher Intuitive Cognitive style and Systematic style (64.9 percent) than the students from rural area (35.1 percent).
- Studentteachers from Women College had higher Intuitive style (70.2 percent) than the B. Ed students from Co Education colleges.
- There exists significant relationship between Systematic Cognitive Style and Academic Achievement of studentteachers with

reference to gender, academic qualification, locality of residence, type of college and nature of college.

- There exists significant relationship between Intuitive Cognitive Style and Academic Achievement of studentteachers with reference to type of college and nature of college type of college and nature of college.
- There is significant relationship between Cognitive Style and Academic Achievement of student teachers.

### RECOMMENDATIONS

- ❖ Student Teachers should have a proper search for acquiring, interpreting, categorizing, remembering and returning information in making decisions and solving problems.
- ❖ Student Teachers should improve the systematic style and intuitive style with a sequential Pedagogy to enhance the Systematic and Intuitive Cognitive style may be framed.

### CONCLUSION

The nature has surrounded every person with a variety of abilities and talents, ranging from low to the high levels, in that, cognition and cognitive style play vital roles in his / her life. From the above findings, it is clear that the Systematic and Intuitive Cognitive styles make some many differences among student teachers and there is significant relationship between Cognitive Style and Academic Achievement among student teachers.. As a future teacher they should understand about Cognitive styles and should identify their students' Cognitive style, according to it only they should teach and avoid partiality among students in a class. It is very much helpful for a student to understand their thinking style and attain their goal easily.

### REFERENCES

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