

## SPECIMEN FORMAT FOR THESES OF MONTH

**Faculty** : Education

**Department** : Education

**Branch/ Area:** : Educational Psychology

**Sub Subject Heading:** : Educational Psychology

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**Title of the thesis** : “Cognitive Strategies Influencing Academic Achievement of Higher Secondary School Students”

(i) In Roman Script -

(ii) In roman Script -

**Nomenclature of Degree:** : Ph.D. (Education)

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**Name of Supervisor** : Dr. Indu.H,

**Designation of Supervisor** : Associate Professor

**Centre/department/school in which research was conducted** : Department of Education

**University's Name & Address** : Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore-105

**Abstract within 300 words:**

The study was conducted to find out the metacognitive awareness, learning style preference and academic achievement of higher secondary school students in Coimbatore district. The sample consisted of 1005 higher secondary school students. Survey method was used for the study. Schraw and Dennison's tool for metacognitive awareness and self constructed tool for learning style preference was used for data collection. Correlation analysis revealed that there was a relationship between regulation of cognition and its subcomponent evaluation with the academic achievement of the students. It is also seen that male students possess better metacognitive ability than their female counterparts and it is also interesting to note that students who read newspaper regularly possess better cognition and they know regulate their cognition better. The finding that Tamil medium students possess better metacognitive ability reveals the fact that when students learn in their mother tongue their thinking ability and cognition is better than when learning in a foreign language. The analysis of data showed that there is no significant association between type of school and the learning styles namely visual-verbal, sensing-intuitive, sequential-global. Locale-wise analysis showed that there is significant association between locale and learning style preferences namely visual-verbal and sensing-intuitive learning styles.

**i) Major objectives :**

1. To find out the relationship among metacognitive awareness, learning style preference and the academic achievement scores of higher secondary students.
2. To construct and validate a tool on learning style preference.
3. To find out if there is any statistically significant difference in academic achievement of students based on their levels of metacognitive awareness.

4. To find out if there is any statistically significant difference in the metacognitive awareness of based on their learning style preference.
5. To find out if there is any statistically significant association between learning style preference of learners and the personal variables like gender, locality, type of family and monthly income of the family.
6. To examine if there is any statistically significant association between learning style preference of learners and the academic variables medium of instruction, types of school and groups of study.
7. To find out if there is any statistically significant association between learning style preference of learners and the facilities available at home like separate study room, news paper, computer and internet access.
10. To examine if there is any statistically significant difference in the total metacognitive awareness of higher secondary students based on the Personal Variables like gender, locality, type of family and monthly income of the family.
11. To examine if there is any statistically significant difference in the total metacognitive awareness, its two components and eight sub components of students based on the academic variables namely medium of instruction, types of school and groups of study.
12. To examine if there is any statistically significant difference in the total metacognitive awareness its two components and eight sub components of students based on the facilities available at home like separate study room, news paper, computer and internet access.

**ii) Hypothesis:**

- 1) There is no statistically significant relationship among metacognitive awareness, learning style preference and academic achievement of higher secondary school students.

- 2) There is no statistically significant difference in academic achievement of students based on their levels of metacognitive awareness.
- 3) There is no statistically significant difference in Metacognitive Awareness of Active and Reflective, Visual and Verbal, Sensing and Intuitive and Sequential and Global learners.
- 4) There is no statistically significant association between learning style preference of higher secondary school students and the personal variables like gender, locality, type of family and monthly income of the family.
- 5) There is no statistically significant association between learning style preference of higher secondary school students and the academic variables namely medium of instruction, types of school and groups of study.
- 6) There is no statistically significant association between learning style preference of higher secondary school students and the facilities available at home like separate study room, news paper, computer and internet access.
- 7) There is no statistically significant difference in metacognitive awareness, its components and sub components of higher secondary school students based on their personal variables like gender, locality, type of family and monthly income of the family.
- 8) There is no statistically significant difference in metacognitive awareness, its components and sub components of higher secondary school students based on their academic variables namely medium of instruction, types of school and groups of study.
- 9) There is no statistically significant difference in metacognitive awareness, its components and sub components of higher secondary school students based on their facilities available at home like separate study room, news paper, computer and internet access.

**iii) Methodology :**

The current study was conducted on 1005 higher secondary students from 14 schools in Coimbatore city. Survey method was used for the study.

#### **iv) Findings:**

1. The percentage analysis brings out the fact that of 1005 higher secondary students selected majority of the sample are found to be active (69 %), verbal (61.1%), Intuitive ( 53.2% )and sequential (56.7%) learners.
2. Majority of the sample (67.48 %) was found to possess average metacognitive awareness and 16.12% was found to have above average level of metacognitive awareness and 16.42 % were found to possess below average level of metacognitive awareness.
3. Highly significant correlation was found between Visual-Verbal, Sensing-Intuitive Learning styles and Academic Achievement.
4. It was seen that there is significant correlation between the metacognitive components namely, Regulation of Cognition and Evaluation with Academic Achievement.
5. Active learners were found to possess better Metacognitive Awareness and Regulation of Cognition than the Reflective learners.
6. t test conducted and revealed the fact that Visual Learners , Sensing learners and Sequential Learners were having better metacognitive awareness than Verbal, Intuitive and Sequential learners.
7. It was also seen that Verbal learners possess better Procedural Knowledge, Conditional Knowledge and Evaluation skills and Intuitive Learners are using better Debugging Strategies and Global learners have better Conditional Knowledge and Planning.
8. Chi-square analysis reveal that there is significant association between learning styles namely Sensing -Intuitive and Sequential – Global.
9. A significant association was seen between Visual – Verbal, Sensing –Intuitive, Sequential – Global and Medium of Instruction.
10. Locale wise study implied that there is a significant association between Visual – Verbal, Sensing –Intuitive learning styles of rural and urban students.

11. The Tamil medium students are found to have more knowledge about their cognition than the English medium students.
12. The t result implies that Urban students have better Procedural Knowledge that is knowledge of performing tasks and Rural students are better in Evaluating their performance in relation to their goals set.
13. It was seen that students from Nuclear family have better conditional knowledge, which means they know about the circumstances when a particular process or task should be done.
14. t value indicated that students who read News paper possess better Metacognitive Awareness than who do not read news paper.
15. ANOVA results indicated that there is significant difference in the metacognitive awareness of students based on type of school.

Tukey test results revealed that government school students possess better Metacognitive Awareness, Knowledge of Cognition, Regulation of Cognition, Declarative Knowledge, Procedural Knowledge, Conditional Knowledge, Planning, Instructional Management Strategies, Debugging Strategies and Evaluation than Corporation and Private school students.

### **Examiners**

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