



## LEARNING STYLES AND ACADEMIC ACHIEVEMENT AMONG HIGHER SECONDARY SCHOOL STUDENTS

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### **Abstract:**

Learning style refers to the ability of learners to perceive and process information in learning situations. One of the most important uses of learning styles is that it makes it easy for teachers to incorporate them into their teaching. There are different learning styles. Three of the most popular ones are visual, auditory, and kinesthetic in which students take in information. This study is an analysis of learning styles prevalent among higher secondary school students. It also tries to find out relation and effect of different learning styles on academic achievements of students. A sample of 300 students of class 11<sup>th</sup> standard was selected for the study. Findings of the study reveal that, kinesthetic learning style was found to be more prevalent than visual and auditory learning styles among secondary school students. There exist positive high correlation between kinesthetic learning style and academic achievement. The main effects of the three variables - visual, auditory and kinesthetic are significant on academic achievement.

**Key Words:** Learning, Learning Style & Academic Achievement

### **Introduction:**

There have been many attempts made to enhance students' academic achievements. It has always been the main concern of many dedicated teachers and parents that their students and children be as much successful as possible. In relation to this, many teachers are convinced that students need the positive attitude to succeed academically. Often, one's learning style is identified to determine strengths for academic achievement.

Learning styles were found to affect learners' learning behaviours. Learners having different learning style preferences would behave differently in the way they perceive, interact, and respond to the learning environment (Junko 1998). Since learners differ in their preferences to certain learning styles, it will be important for teachers to examine the variations in their students on the features of their learning styles, because the information about learner's preference can help teachers become more sensitive to the differences students bring to the classroom (Felder & Spurlin 2005). Adjustments can then be made to accommodate the students' varied needs. This study, therefore, aims at depicting the relationship of learners' learning style preference and the overall academic achievement of a group of higher secondary school students.

### **Objectives of the Present Study:**

- ✓ To find out the learning styles among the higher secondary students
- ✓ To measure the level of academic achievement among the higher secondary students
- ✓ To find out the relationship between learning style and academic achievement.
- ✓ To find out the significant influence of independent variables on dependent variable learning styles and academic achievement.

### **Methodology in Brief:**

|           |   |             |
|-----------|---|-------------|
| Design    | : | Descriptive |
| Method    | : | Normative   |
| Technique | : | Survey      |

### **Sample of the Study:**

A stratified representative sample of 300 students constituted from Government and Government aided and private Schools recognised by the Department School Education, Tamil Nadu, with due representation given to the variables viz., Sex, Medium Of Instruction, School Locality, School Kind, School Management, Whether Watching Education Related T. V. Programmes, Study Habit, Tuition Undergoing, Family Income, Participation In Extra- Curricular Activities, Participation In Sports And Games, Half-Yearly Mark In Mathematics Subject.

### **Tool:**

The following tool was used by the investigator for the data collection:

- ✓ Learning Styles Scale developed and standardized by Patel, P.V (2008)

### **Statistical Treatments:**

The statistical treatments employed in the study are listed below:

- ✓ Mean
- ✓ Standard deviation
- ✓ 't' test for significance of difference between the means of independent samples.
- ✓ Pearson Product Moment Correlation 'r'

**Learning Styles and Medium of Instruction:**

**Hypothesis 1:**

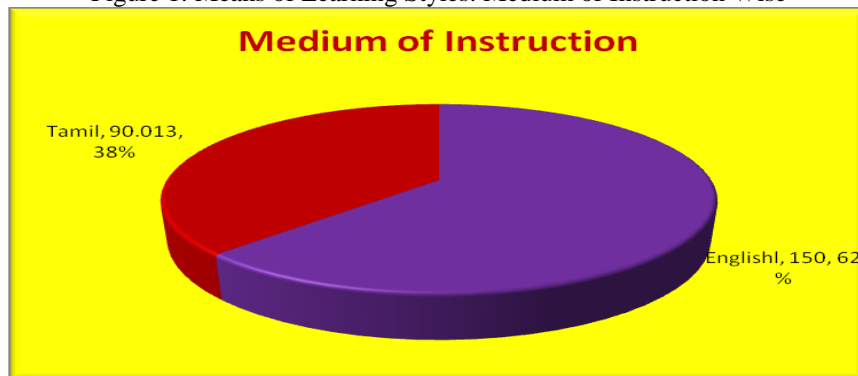
There is a significant difference in the learning styles of Higher Secondary students in terms of medium of instruction.

Table 1: Statistical Measures and Results of Test of Significance for Difference Between the Means of Learning Styles: Medium of Instruction Wise

| Variable              | Sub-Variables | N   | Mean    | SD     | 't' - VALUE | Significance at 0.05 Level |
|-----------------------|---------------|-----|---------|--------|-------------|----------------------------|
| Medium of Instruction | Tamil         | 150 | 90.013  | 15.753 | 2.313       | Significant                |
|                       | English       | 150 | 101.753 | 60.138 |             |                            |

The obtained 't' value 2.313 is greater than the table value 1.96 at 0.05 level of significance. This shows that there is a significant difference in learning styles between Tamil and English Medium students. Further, it is noted that English Medium students have more adequate learning styles than Tamil Medium students.

Figure 1: Means of Learning Styles: Medium of Instruction Wise



**Learning Styles and School Locality:**

**Hypothesis 2:**

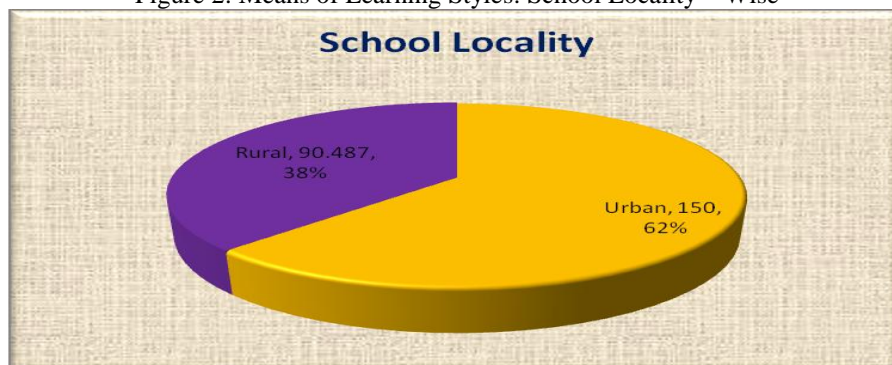
There is a significant difference in the learning styles of Higher Secondary students in terms of school locality.

Table 2: Statistical Measures and Results of Test of Significance for Difference Between the Means of Learning Styles: School Locality Wise

| Variable        | Sub-Variables | N   | Mean    | SD     | 't' - Value | Significance at 0.05 Level |
|-----------------|---------------|-----|---------|--------|-------------|----------------------------|
| School Locality | Urban         | 150 | 101.280 | 59.906 | 2.123       | Significant                |
|                 | Rural         | 150 | 90.487  | 16.932 |             |                            |

The obtained 't' value 2.123 is greater than the table value 1.96 at 0.05 level of significance. This shows that there is a significant difference in learning styles between the school located in the Urban and Rural area. Further, it is noted that the students studying in the schools located in the urban area have more adequate learning styles than the students studying in the schools located in the rural area.

Figure 2: Means of Learning Styles: School Locality – Wise



**Learning Styles and School Management:**

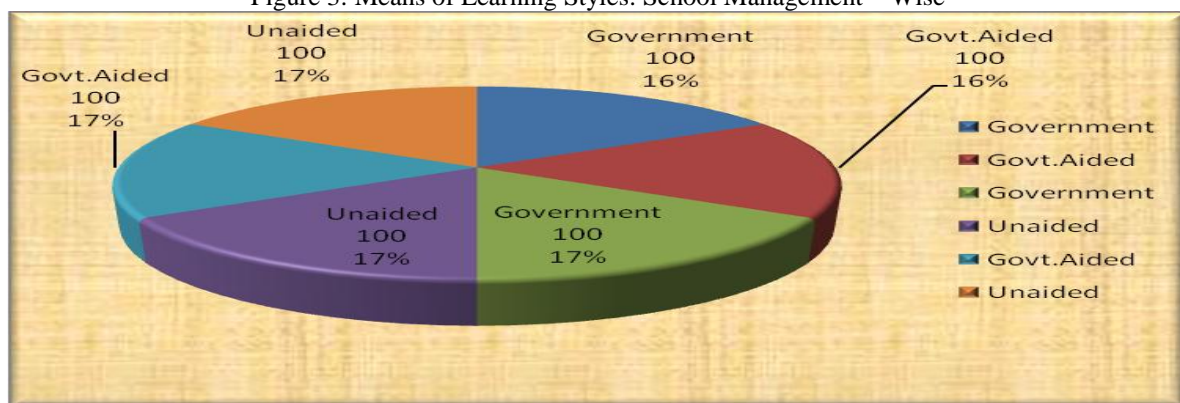
**Hypothesis 3:** There is a significant difference in the learning styles of Higher Secondary students in terms of school management.

Table 3: Statistical Measures and Results of Test of Significance for Difference Between the Means of Learning Styles: School Management Wise

| Variable          | Sub-Variables | N   | Mean    | SD     | 't' - Value | Significance at 0.05 Level |
|-------------------|---------------|-----|---------|--------|-------------|----------------------------|
| School Management | Government    | 100 | 86.730  | 13.962 | 2.093       | Significant                |
|                   | Govt. Aided   | 100 | 102.250 | 72.827 |             |                            |
|                   | Government    | 100 | 86.730  | 13.962 | 5.428       | Significant                |
|                   | Unaided       | 100 | 98.670  | 16.997 |             |                            |
|                   | Govt. Aided   | 100 | 102.250 | 72.827 | 0.479       | Not Significant            |
|                   | Unaided       | 100 | 98.670  | 16.997 |             |                            |

The obtained 't' value 2.093 is greater than the table value 1.96 at 0.05 level of significance. This shows that there is a significant difference in learning styles between the students studying in the government schools and government aided schools. Further, it is noted that students studying in government aided schools have more adequate learning style than the students studying in the government schools. The obtained 't' value 5.428 is greater than the table value 1.96 at 0.05 level of significance. This shows that there is a significant difference in learning styles between the students studying in the government schools and unaided schools. Further, it is noted that students studying in government unaided schools have more adequate learning style than the students studying in the government schools.

Figure 3: Means of Learning Styles: School Management – Wise



**Conclusions:**

The major conclusions emerged out of the present study are presented below. Learning styles among the higher secondary students are found to be adequate. Academic Achievement among the higher secondary students is found to be high. Further, it is observed that Learning styles of the higher secondary students have significant positive relationship with Academic Achievement. Students studying in English medium schools, urban schools have adequate Learning styles. Students studying in unaided schools have adequate Learning styles. Students studying in English medium schools, Students studying in unaided schools have high level of Academic Achievement. In general, there is no significant difference in the Learning styles among the higher secondary students irrespective of sex, school kind, watching educational TV programmes, study habit, tuition under going, family income, participation extra-curricular activities and participation sports and games studied in the present investigation.

**Educational Implications:**

It is quite interesting to observe that the present investigation has revealed that the students studying in the English medium schools have adequate Learning styles. It can further be derived that the students studying in the unaided schools have adequate Learning styles and high level of academic achievement . Government has to take necessary plan to conduct psychological counselling program through Institutions with the concerned experts to enhance the adequate Learning styles and improve the academic achievement among the higher secondary students.

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