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## LEARNING STYLE AND ACADEMIC ACHIEVEMENT OF XI STANDARD STUDENTS

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### ABSTRACT:

*The present study was carried out to find out whether the learning style is a predictor of the academic achievement of XI standard students. The study was undertaken with 1000 higher secondary students as samples. Self-made tool was used for the study. The study concluded that the learning style differed under all the three dimensions i.e. auditory, kinesthetic and visual based on gender. Auditory dimension alone differed in locality wise analysis. Learning style showed difference in auditory and kinesthetic dimension based on the*

*medium of instruction. It was also found the correlation value was 0.20 between the learning style and academic achievement.*

**KEYWORDS:** Learning Style, Academic Achievement, XI Standard Students.

### LEARNING STYLES

Learning styles are simply different approaches or ways of learning. Psychologists, academics and other theoreticians have developed any number of ideas and theories about the way people learn. Learning styles involves educating methods, particular to an individual, which are presumed to allow that individual to learn best. It is commonly believed that most people favor some particular method of interacting with, taking in and processing stimuli or information. Based on this concept, the idea of learning style originated in the 1970s, and has gained popularity in recent years. It has been proposed that teachers

should assess the learning styles of their students and adapt their classroom methods of student's learning styles.

Learning style defines the ways, in which people learn and how they approach information. It is interesting to note that sometimes learners do not learn something important even if they use the same method, which has been suggested by parents, colleagues or teachers. But one may learn and process information in one's own special way to share some learning patterns, preferences or approaches. Thus, one may have different learning styles. Knowing one's own learning styles can help to realize that other people may approach the same situation in a way that's

different from one's own. It could be said that an individual's learning style is the way that person begins to process, internalize and concentrate on new material. The analysis of learning style would be helpful to the instructor in designing suitable instructional materials and methods. It helps to know about one's achievement in preferred way of learning.

### VISUAL - AUDITORY - KINESTHETIC LEARNING STYLE (VAK STYLE)

A learning style is our natural learning strengths, gifts or bents. It is one's own individual way of inputting, processing, concentrating, remembering, understanding, storing and processing information. The

VAK learning style provides a very easy and quick reference inventory by which to assess people's preferred learning styles and then most importantly, to design learning methods and experiences that match people's preferences.

VAK looks at three broad learning styles, which all people use. Different people tend to favor a particular style. It is important, therefore, that all three learning styles should be facilitated as far as possible, within the classroom.

### VAK LEARNING STYLES LEADS TO BETTER LEARNING

VAK stands for visual, auditory and kinesthetic sensory modalities that are used for learning information. Fleming and Mills suggest the following learning styles categories as:

**Visual (V):** Visual learner enjoys pictures and diagrams rather than lots of words. They respond to demonstration, reading and watching videos. This preference also includes description of information in charts, graphs, flow charts, and all the symbolic arrows, circles, hierarchies and other devices that instructors use to represent what could have been presented in words.

**Auditory (A):** Auditory learners like audio tapes, lectures, debates, discussions, listening to radio, and taking verbal instructions. This perceptual mode prefers information that is "heard". Students with this modality report that they learn best from lectures, tutorials, tapes, and talking to other students.

**Kinesthetic (K):** This is the way of learning through physical activities and direct involvement. Kinesthetic learners enjoy having hands-on, moving around, touching, and experiencing. This preference is for the use of experience and practice. One connects to "reality through experiences, example, practice or simulation".

### ACADEMIC ACHIEVEMENT

The word "achievement" is generally applied to the academic status of the child in different subjects or as a whole. Academic achievement is directly related to pupil's growth and development in educational situations. Dictionary of Psychology (Atkinson, 1988) defined academic achievement as specified level of attainment or proficiency in academic work as evaluated by the teachers, by standardized test or by combination of both. It implies one's knowledge, understanding or skills in a specified subject or group of subjects. In the present competitive world, people are judged not only by their personality, but also by their achievements in their life. Academic achievement or academic performance is the outcome of education-the extent to which a student has achieved his educational goals.

Among the many criteria that indicate academic achievement, there are very general indicators such as procedural and declarative knowledge acquired in an educational system, more curricular based criteria such as grades or performance on an educational achievement test, and cumulative indicators of academic achievement such as educational degrees and certificates.

### SIGNIFICANCE OF THE STUDY

The ultimate aim of educational research is to find solutions for problems related to teaching process. The present research aims to study the learning style and academic achievement of XI standard students. Learning plays a vital role in one's life. Learning starts from one's birth and continues till the end of his life. So learning styles such as perception, thought, remembering or problem solving of the individual in the way that student is used to do each person's individual learning style is unique as a signature. When a person has something difficult to learn, that student learns faster and enjoys learning more if the student has unique learning style affirmed by the way the teacher teaches. Higher secondary students may vary in their Learning styles and their Academic achievement. But the investigator is interested in finding out the - learning styles and academic achievement of 11<sup>th</sup> standard students on their academic achievement. Hence the present study undertaken.

## OBJECTIVES

- To find out the significant difference between male and female XI standard students in their learning styles.
- To find out the significant difference between urban and rural XI standard students in their learning styles.
- To find out the significant difference between English and Tamil medium XI standard students in their learning styles
- To find out the significant relationship between learning styles and academic achievement of XI standard students

## HYPOTHESES

1. There is no significant difference between male and female XI standard students in their learning styles.
2. There is no significant difference between urban and rural XI standard students in their learning styles.
3. There is no significant difference between English and Tamil medium XI standard students in their learning styles.
4. There is no significant relationship between learning styles and academic achievement of XI standard students.

## METHODOLOGY

Survey method was used by the investigator for this study. The present study was conducted on a sample 1000 higher secondary school students studying in various schools in Coimbatore district. The tool used for the present study was, Learning Styles Inventory constructed and standardized by the Investigator.

## DATA ANALYSIS

**Table 1: Learning of XI Standard Students based on Gender**

Dimension	Gender	N	Mean	SD	t-value
Auditory	Male	511	18.30	2.43	3.41
	Female	489	18.814	2.23	
Visual	Male	511	22.78	3.39	3.75
	Female	489	23.55	3.05	
Kinesthetic	Male	511	27.40	4.05	2.54
	Female	489	27.99	3.27	

From Table-1, it could be concluded that the students' learning style under the three dimensions such as auditory, visual, kinesthetic in relation to the gender of the students differed significantly. The t-value calculated is greater than the table value at 0.05 level of significance. The male and female students under the auditory dimension showed 3.41 t-value, visual (3.75) and kinesthetic (2.54), which is above the table value 1.96. Hence, the hypothesis-1 is rejected.

**Table 2: Learning of XI Standard Students based on Locality**

Dimension	Locality	N	Mean	SD	t-value
Auditory	Rural	265	18.25	2.36	2.39
	Urban	735	18.65	2.34	
Visual	Rural	265	22.98	3.06	1.06
	Urban	735	23.22	3.31	
Kinesthetic	Rural	265	27.47	4.09	1.12
	Urban	735	27.77	2.54	

Table-2 shows that the auditory dimension shows significant difference between the rural and urban students. The visual and kinesthetic dimension did not differ significantly. The t-value for the visual (1.06) and kinesthetic (1.12) is less than the table value. Thus, there is difference between the rural and urban students in their learning style under the auditory dimension. There is no difference among the students under the visual and kinesthetic dimension.

**Table 3: Learning of XI Standard Students based on Medium**

Dimension	Medium	N	Mean	SD	t-value
Auditory	English	540	18.71	2.30	2.3
	Tamil	459	18.36	2.39	
Visual	English	540	23.40	3.46	2.53
	Tamil	459	22.88	2.97	
Kinesthetic	English	540	27.88	3.91	1.70
	Tamil	459	27.48	3.42	

Table-3 depicts that the students learning style under the auditory and visual dimension differed significantly and the t-value is found to be higher than the table value at 0.05 level of significance. The t-value for auditory dimension is 2.3 and visual dimension is 2.53. The kinesthetic dimension does not show any difference in the learning style based on the medium of instruction. Thus, the hypothesis-3 is accepted in the case of Auditory and Visual and rejected in the case of kinesthetic dimensions.

**Table 4: Relationship between Learning Style and Academic Achievement of XI Standard Students**

Learning Style and Academic Achievement	r-value
	0.20

From Table-4, the calculated r-value for the learning style and academic achievement is found to be 0.20 which shows that weak relationship exists between the two variables.

### RECOMMENDATIONS AND IMPLICATIONS

The present study shows that there is significant difference in students learning style based on the gender. The locality analysis shows that they differed under the auditory dimension alone. There is difference in the students learning style under auditory and visual dimension based on the medium of instruction. It was also found that the learning style and academic achievement has a weak correlation. The above study revealed that the gender and locality variables create difference among the students in their learning style. This should be considered while designing the curriculum and teaching learning process should cater the different learning styles of students. Teachers should plan accordingly to include the relevant content inside the classroom to satisfy the students who have varied learning styles.

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