

# An Exploratory Study On Learning Style Preferences Of Secondary School Students In Visakhapatnam District Of Andhra Pradesh

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## Abstract

Education is one of the most powerful instruments of social, economic and cultural transformation necessary for the realization of national goals. Students need to be educated by which their character is formed, minds are sharpened and their knowledge gets increased. In formal setting, the school provides varied learning experiences to the students by making them participate in curricular, co-curricular and extra-curricular activities. Confidence in learning will consistently rise when learners know how to learn. They should realize the fact that their learning is very much influenced by the learning style preferences they adopt. The researchers thought that it is necessary for the students to know their learning style preferences in the teaching-learning process in secondary schools. Further, it is also essential for teachers to identify these learning styles of different students with a view to tune their teaching suitable to the context. The present investigation is an attempt to explore the learning style preferences of students of secondary schools in Visakhapatnam district of Andhra Pradesh.

**Key words:** Learning styles, visual, auditory, kinesthetic, preferences, influence.

## 1. Introduction

Education is the process of facilitating learning, or the acquisition of knowledge, skills, beliefs, habits and values. It is an effective means of social reconstruction. It is the process of facilitating learning. Students need to be educated by which their character is formed, minds are sharpened and their knowledge gets increased. It is important to note that individuals receive education in areas suitable for their learning styles. Confidence in learning will consistently rise when learners know how to learn. They should realize the fact that their learning is very much influenced by the learning style preferences they adopt. Different students adopt different learning styles. The learning styles of students play a significant role in the teaching-learning process. The teachers should tune their teaching with the learning style preferences of students in order to make them learn more effectively and efficiently.

### 1.1. Concept of 'learning styles'

Learning is something that happens quite naturally and goes by quite unnoticed in many cases. The individual is constantly interacting with and influenced by the environment. This experience makes him to change or modify his behavior in order to deal effectively with it.

Hence, it is understood that the skills, knowledge, habits, attitudes, interests and other personality characteristics are all the result of learning.

According to Reid, J. M. (1987), learning styles or learning preferences are the different ways of how a learner acquires, retains and retrieves information. Lay Cock, V. K. (1978) defines learning style as 'an individual characteristic way of responding to certain variables in the instructional environment'. Dunn and Dunn (1978) define learning style as the way that forces learners to concentrate, absorb and retain new and difficult information. According to Brown (2000), 'learning styles serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment'. From these definitions, it is understood that learning styles are individual characteristics of cognitive processing which are peculiar to a particular individual

### 1.2 Types of learning styles

There are various types of learning styles, which include visual, aural, verbal, physical, logical, social and solitary learning styles. Out of these, the preferred and most commonly used

learning styles are: (i) visual (students learn mainly through seeing); (ii) auditory (students learn mainly through hearing); and (iii) Kinesthetic (students learn by doing). The students prefer to adopt some learning style or the other. Sometimes a student may adopt multiple learning styles depending on the context.

### 1.3 Theoretical perspectives of learning styles

There are various theories concerning the learning style preferences of students. Out of these, the theories propounded by Gardner Howard (1983), Neil Fleming (2011) and David Kolb (2017) are very popular.

Gardner Howard (1983) believed that students learn in ways that are identifiably distinctive. According to his model, each learning style uses different parts of the brain. He identified seven distinctive learning styles, viz., visual-spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, linguistic and mathematical-logical. Different learners learn in different ways. Neil Fleming (2011) developed VARK (Visual, Aural, Reading/Writing and Kinesthetic) model for learning styles. These learning styles refer to the instructional preferences in which students or people in society prefer to take in and give out information. David Kolb's (2017) model outlines two related approaches toward grasping experience: Concrete Experience and Abstract Conceptualization, as well as two related approaches toward transforming experience: Reflective Observation and Active Experimentation. According to Kolb's model, the ideal learning process engages all four of these modes in response to situational demands; they form a learning cycle from experience to experimentation and back to experience.

### 1.4 Need for the present investigation

It is important to note that individuals receive education in areas suitable for their learning styles. Learning styles also provide information to the students as to why they have learnt in a different way from others. It helps to control the process of learning. It is vital because one of the most important signals in learning is to learn to be autonomous, that is, for the individual to take responsibility for his/her own learning.

It has been noticed by the researchers that most of the secondary school students do not have the awareness of their learning styles; and perhaps there is a mismatch between learners' learning styles and the teaching strategies followed by the teachers in secondary schools. Further, from the review of related literature, it is observed that there are very few studies conducted earlier by the other researchers on the learning styles of students particularly at secondary school level. Hence, the investigators thought it desirable to conduct research in this area.

### 1.5 Objectives of the study

The following are the objectives of the study:

1. To study the differences, if any existing in the learning style preferences of boys and girls in secondary schools.
2. To study the differences, if any existing in the learning style preferences of students studying in Rural and Urban secondary schools.
3. To study the differences, if any existing in the learning style preferences of students studying in English and Telugu medium secondary schools.
4. To study the learning style preferences of secondary school students with regard to the dimensions, viz., the visual, the auditory and the kinesthetic learning styles.

### 1.6 Hypotheses of the study

1. There is no significant difference in the learning style preferences of Boys and Girls in secondary schools.
2. There is no significant difference in the learning style preferences of students studying in Rural and Urban secondary schools.
3. There is no significant difference in the learning style preferences of students studying in English and Telugu medium secondary schools.
4. There is no differential influence in the learning style preferences of students with regard to the dimensions, viz., the visual, the auditory and the kinesthetic learning styles.

### 1.7 Limitations of the study

The study is limited to find out the learning style preferences of 2000 students studying in 50 secondary schools located in Visakhapatnam district of Andhra Pradesh. These students include both boys and girls studying in rural and urban secondary schools which are offering English and Telugu as medium of instruction.

## 2. Methodology

**(a) Method of Research:** The researchers followed descriptive survey method for the present investigation.

**(b) Sample:** The sample of the study consisted of 2000 students selected from 50 secondary schools located in the Rural as well as Urban areas in Visakhapatnam district of Andhra Pradesh.

**(c) Research Tool:** The researchers used a well developed and standardized 'questionnaire' for the present investigation.

### 2.1 Administration of the tool

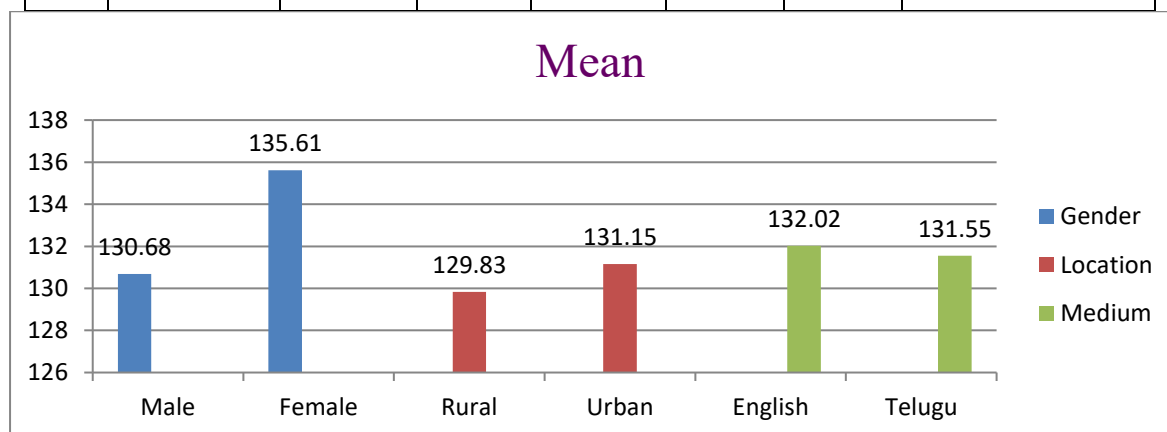
The final form of the questionnaire (standardized tool) consisting of 39 items was administered to 2000 students studying in 50 Secondary Schools of Visakhapatnam district in Andhra Pradesh. The investigator used 2000 duly filled-in questionnaires, which are fool proof in all respects, for the present investigation. The sample considered for final administration of the tool is exclusive; and the respondents of pilot study are not included in this sample.

### 2.2 Analysis and interpretation of data

The data collected has been analyzed using different statistical techniques such as Mean score values, Standard Deviations, t-ratios; and are presented in the following table.

**Table-1 Table showing t-values of different variables relating to the learning style preferences of students studying in secondary schools**

S. No.	Variable		N	Mean	S.D.	t-ratio	Result
1	Gender	Boys Girls	900 1100	130.68 135.81	29.62 39.56	3.8*	*Significant at 0.05 & 0.01 levels
2	Location of the school	Rural Urban	1200 800	129.83 131.15	30.32 32.70	0.91*	*Not Significant at 0.05 and 0.01 levels
3	Medium of Instruction offered by the school	English Telugu	750 1250	132.02 131.55	28.40 27.00	0.37*	*Not Significant at 0.05 and 0.01 levels



### 1. The Bar diagram shows the Mean Learning Style Scores by Gender, Location of the School and Medium offered by the School.

**Table-2** Table showing high acceptances (total score of 80% and above) in respect of all the subjects for different items included in the scale, dimension wise

S. No.	Dimension of English language learning	S. Nos. of items showing high acceptance	Total number of items showing high acceptances	Percentage
1	Visual Learning style	2, 4, 5, 7, 9, 11	6	46.15
2	Auditory Learning style	15, 17, 19, 20, 25	5	38.46
3	Kinesthetic Learning style	27, 28, 31, 33, 35, 38, 39	7	53.85
	<b>TOTAL:</b>		<b>18</b>	

### 2.3 Findings of the study

On the basis of the analysis and interpretation of data, the researchers have arrived at the following findings and drawn the conclusions.

#### i. There is significant difference in the Learning style preferences of Boys and Girls in secondary schools.

The results of the study revealed that Girls have expressed better Learning style preferences as compared to Boys.

#### ii. There is no significant difference in the learning style preferences of students studying in Rural and Urban secondary schools.

The results of the study revealed that location of the institution has no influence on the Learning style preferences of students studying in secondary schools.

#### iii. There is no significant difference in the learning style preferences of students studying in Telugu and English medium secondary schools.

The results of the study revealed that the medium of instruction offered by the school has no influence on the Learning style preferences of students studying in secondary schools.

#### iv. Kinesthetic learning style is the most preferred learning style; whereas Auditory learning style is the least preferred one among the secondary school students.

The results of the study revealed that the Kinesthetic learning style is the most preferred learning style and Auditory learning style is the least

preferred learning style of the students in secondary schools.

### 2.4 Educational implications

The following are the educational implications of the present study.

- The present study helps teachers to formulate appropriate teaching strategies depending on the learning styles of students.
- The results help to develop the curriculum content by understanding students' preferred learning styles.
- The study helps the learners to improve their ability to learn and perform better in subjects which they find difficult.
- Teachers can incorporate these learning styles in their classroom activities so that students would improve their performance in different subjects.

### 3. Conclusion

The study is conducted to know the influence of certain demographic variables, viz., gender, Location of the institution and Medium of instruction offered by the school on the learning style preferences of secondary school students. The researchers used descriptive survey method for the present investigation. The researchers developed and standardized a 'questionnaire' for collecting data. The tool was administered to a sample of 2000 students studying in the secondary schools of Visakhapatnam district selected through Stratified Random sampling method. The data were analyzed using Mean, Standard Deviation and 't'-test. The findings of the study revealed that girls have better learning style preferences as compared to boys.

However, the location of the institution and the medium of instruction offered by the school have no influence on the learning style preferences of students.

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