



# A STUDY OF LEARNING STYLE PREFERENCE AMONG UNDERGRADUATE STUDENTS OF PUNJAB

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## ABSTRACT

This paper seeks to find out the preference of learning styles among 120 undergraduate students of Patiala district. For the present study, K.S. Mishra (2012) learning style inventory was used to assess the preferred learning styles of students in term of different dimensions such as Enactive, Figural and Verbal learning style. For the analysis of data mean, SD, t-test were used. The study revealed that maximum number of students prefers to learn by verbal learning styles. There is no significance gender difference found in total learning style, enactive learning styles and verbal learning style of undergraduate students. While significance difference found on stream wise in enactive learning style of arts and commerce students at 0.05 level of significance. Further insignificant difference at 0.05 level was observed on total learning style, figural learning style and verbal learning style of undergraduate students. Whereas significant difference is observed in figural learning style of male and female undergraduate students at 0.05 level.

## INTRODUCTION

Learning style suggests the way or methods by which students acquire learning. It is consistent way of responding to and using stimuli in context of learning. There is inherent variation of learning styles that every individual reflects. Learning style is a personality characteristics that is innate and effected by environmental factor and evolves period of time. It's also determined many variables such as mental ability, child rearing practice, school

environment, peer interaction, self-awareness, involvement in learning on the part of students etc. it gradually develops from birth and stabilizes at certain adolescent age. A student reveals their learning style preference by everything they say or do. A student may possess one or more than one learning style. Some learner may be very receptive to figural form of information such as pictures, and diagram. Some are prefer to learn activity and interactively, while other work better on their own (Babu, R. 2015). Learning style may be understood as the particular style, manner, approach, procedure etc. Every individual has difference style of learning. Learning style can be set of factors, behavior and attitude. It is ability of learner to perceive and process information in learning situations. There are different type of learning style which include cognitive, effective and psychological behaviors that serve as relatively stable that indicate how the learner perceive, interact, with and respond to them learning environment. It is a method in which individual retain new information or skill. Knowledge of learning style was termed useful in becoming an effective adult learner and effective adult educators. Keefe (1987) Learning style can be defined as a set of cognitive, emotional, characteristics and physiological factors that serve as relatively stable indicators of how a learner perceives, interacts with, and respond to the learning environment. Learning styles and achievement of students largely depends on guidance and knowledge available to them. Teacher is the first source of guidance for students. He can guide the students properly when he / she understand students thoroughly in respect of their personality characteristics and environmental conditions in which they happen to be. Kemp et.al. (1998) some individuals learn by seeing and hearing. Some individuals learning occur by watching and doing. Some individuals learn by visualizing and some by implementing. This disposition referred to learning styles, form a student's unique learning preference and aid teachers in the planning of small-group and individualized instruction. Kolb (1984) explained that learning styles are relatively stable attribute of preferences strategies used by an individual learner to organize and process information for problem solving. Grasha (1996) learning style can be seen as a profile in every students. Usually, the quality of dominant learning style is most easily observed in the classroom. In addition, learning styles gave an impact on academic achievement. Furthermore, students exposed to learning styles are to obtain better achievement outcome than those who are not exposed to the learning styles.

Learning style as synonymous to cognitive style which include an individual preference in both perceptual organization and concept organization i.e. perceiving thinking, remembering and solving problems. After discussing some of the definitions of learning styles it is crystal clear that learning styles and cognitive styles are closely related. Both 'learning styles' as well as cognitive style deal with the ways in which people process and interpret from information in the environment. However, they seem to have different orientations. Learning styles are consistent with preferred ways of learning, which an individual learner employs during learning of various tasks. Depending upon the situations of different researchers has identified different types of learning styles: keffi (1987), kemp (1998) and Kolb (1984) have all discussed different types of

learning styles ranging from the cognitive level, mode of learning clientele-base and styles orientations of people, combining diverse traits to describe features of learning styles i.e. quite diverse . In order to focus upon some of the salient features of learning style, it was decided to highlight the importance of the types of learning styles and factors associated with K.S. Mishra (2012) refers to the educational conditions which enables students to learn. (I) Enactive Learning: In this method, the senses of the body are used. It describes a way of interacting with the environment that is based on knowledge gained through physical actions and motor skills. It indicates one's preference for action based concrete experiences. (II) Figural Learning: Figural learning style considered to be the most effective way of learning. Making diagrams, charts, pictures, maps, photographs, reproducing the information and imitation along with practice are some of the ways used in figure learning. Reproducing the information and understanding one's experience based on such ways is very informative results of the same. (iii) Verbal Learning: Verbal information, written or spoken, in the form of words, ideas, expressions etc. it is very successful ways of learning. It is most through and effective way. When enriched with audible material. The repetitive presentation makes it more effective. The retain information if they repeat it audibly to themselves what they were taught.

## OVERVIEW

- Several research studies showed significant relationship between learning styles and achievement of students (Rahmani and Jahanbakhsh, 2012; Rajshree and Vaishnav, 2013; Nzesei, 2015; Vyjayanthi, 2016; Razaeinejad, 2018; Akhlaghi et al., 2018). Some studies found that arts and science students preferred similar verbal, figural, enactive, enactive constructive, figural constructive and verbal constructive learning styles (Upadhyaya,2011). Significant gender difference on enactive, figural and verbal learning styles observed by (Babu, 2015; Delic 2019)). There was a significant difference found in preferred learning style of school students based on gender. Significant difference also determined on their style of learning like visual, auditory and kinesthetic and basis of their parents educational level, socio-economic status and medium of Instruction (Delgin, 2019; Kinjari and Gopal, 2020 )

## NEED AND IMPORTANCE OF THE STUDY

Every individual has difference style of learning. Learning style can be set of factors, behavior and attitude. It is ability of learner to perceive and process information in learning situations. Learning preference has been indirectly linked to students' success or achievement. The present study aim was to study the learning style preferences among arts and commerce undergraduate students.

## OBJECTIVE OF THE STUDY

- To study the learning style of undergraduate students.
- To compare various learning style such as enactive learning style, verbal learning style, figural learning style and total learning style of undergraduate students in relation to

stream of study.

- To compare the various learning style such as enactive learning style, verbal learning style, figural learning style and total learning style of undergraduate students in relation to their gender.

### **DELIMITATION**

- The study was delimited to only arts and commerce undergraduate students.
- The study was delimited to only such enactive learning style, verbal learning style, figural learning style and total learning style of undergraduate students.
- The study was delimited to only rural area undergraduate students.

### **HYPOTHESES OF THE STUDY**

- There is no significant difference of various learning styles such as enactive learning style, verbal learning style, figural learning style and total learning style of arts and commerce undergraduate students in relation to stream of study.
- There is no significance difference of various learning style of such as enactive learning style, verbal learning style, figural learning style and total learning style of undergraduate students in respect to their gender.

### **METHODOLOGY**

#### **(i) Research Method**

The research employed a quantitative approach to collect the relevant data for the research.

#### **(ii) Research Tool**

For the data collection Learning Style Inventory by Misra (2011) was used by the investigator.

#### **(iii) Sample**

In the present study the sample comprised of 120 undergraduate college students which of them 60 from arts stream (30 male 30 female) and 60 from commerce stream (30 male 30 female) selected through stratified random sampling technique.

#### **(iv) Statistical Technique**

In order to achieve the objective of this study, different statistical techniques such as mean, standard deviation and t- test was used.

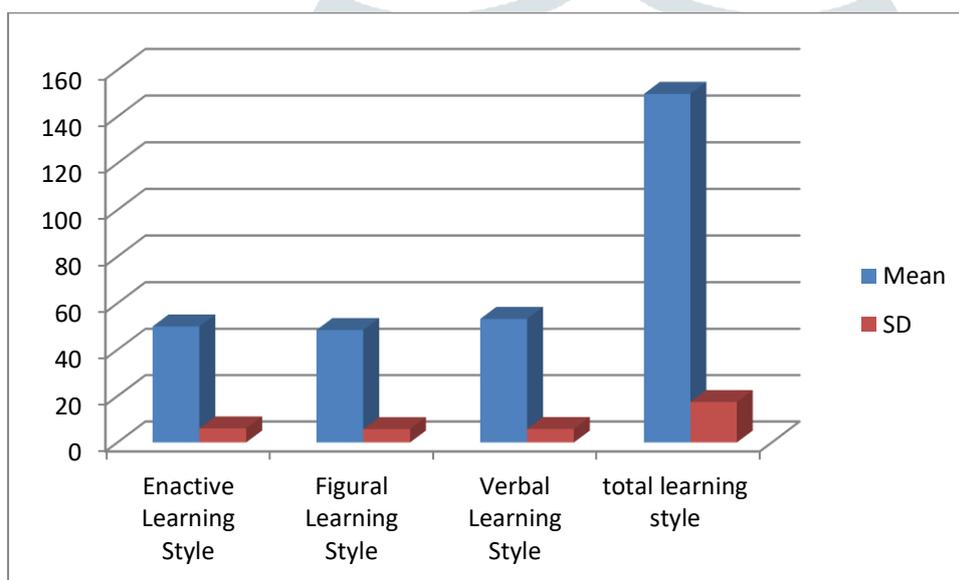
#### **1. Learning style of undergraduate students**

To study preferred learning style of undergraduate students. Mean, SD has been calculated are given here under (N-120)

**Table-1**  
**Learning style of undergraduate students**

Style of learning	Minimum	Maximum	Mean	SD
Enactive Learning Style	33	67	50.04	6.07
Figural Learning Style	30	64	48.48	5.75
Verbal Learning Style	38	65	53.29	5.79
total learning style	101	190	149.75	17.45

Table1 indicates that the mean score of total learning style of undergraduate students find out to be 149.75 along with standard deviation of 17.45. While mean score of Enactive learning style is 50.04 along with 6.07 standard deviation, whereas mean score of Figural learning style 48.48 along with standard deviation 5.75 and Verbal learning style found mean score 53.29 with the value of 5.79 standard deviation. This shows that verbal learning style is mostly preferred by undergraduate students followed by to enactive and figural Learning style.



**Figure-1**

Figure 1 depicts mean difference between Enactive, figural, verbal and total learning styles of undergraduate students.

## 2. Learning style of undergraduate students in relation to stream of study.

The table 2 reveals that the learning style of arts and commerce undergraduate students

**Table-2**  
**Learning style in relation to stream of study**

Style of learning	Stream (N-30)	Minimum	Maximum	Mean	SD	t-test
Enactive Learning Style	Arts	33	66	48.75	6.11	2.18*
	Commerce	37	67	51.25	6.04	
Figural Learning Style	Arts	33	66	47.80	5.15	1.85 <sup>NS</sup>
	Commerce	30	65	50.00	6.32	

+Verbal Learning Style	Arts	38	65	51.83	5.94	0.062 <sup>NS</sup>
	Commerce	38	64	51.58	5.63	
total learning style	Arts	101	185	148.00	17.33	1.34 <sup>NS</sup>
	Commerce	103	190	152.67	18.25	

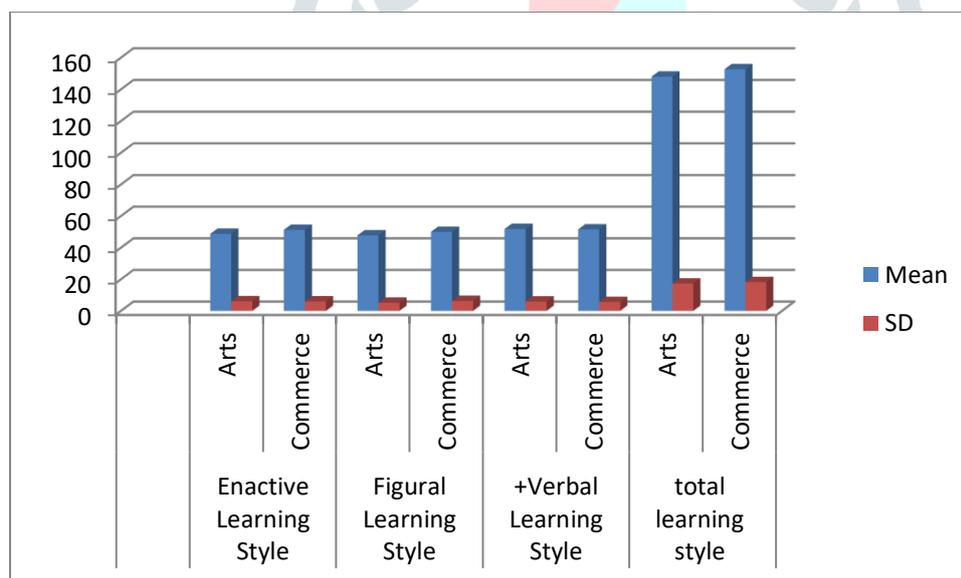
\* Significant at 0.05 level.

NS= Not significant

The mean score of total learning style of arts undergraduate students came out to be 148.00 along with standard deviation 17.28 and mean score of total learning style of commerce students' drop out 152.67 with the value of 18.25 standard deviation.

While mean and standard deviation values in enactive learning style of arts students 48.45 and 6.11 whereas there values in commerce students are 51.25 and 6.04 respectively. While the mean score of figural learning style of arts and commerce students is 47.80 and 50.00 along with 5.15 and 6.32 vale of SD.

Further the mean and SD value of verbal learning style of arts and commerce students came to be (51.83, 5.63) and (51.58, 5.63) respectively. The t-value of enactive learning style of arts and commerce students comes out to be 2.18\* which is significant at 0.05 level of significance where's insignificant difference at 0.05 level was observed on total learning style, figural learning style and verbal learning style of undergraduate students.



**Figure-2**

Geographical figure 2 presents mean difference of enactive, figural, verbal and total learning styles of arts and commerce students.

### 3. Learning style in relation to gender

Learning style of arts and commerce undergraduate students with respect to their gender.

Table-3

Learning style of Arts and Commerce undergraduate students with respect to their gender

Style of learning	gender	Mean	SD	t-value
Enactive Learning Style	Male	49.91	6.80	0.11 <sup>NS</sup>
	Female	50.03	5.45	
Figural Learning Style	Male	48.33	6.45	7.44*
	Female	49.00	5.83	
Verbal Learning Style	Male	50.92	6.28	1.16 <sup>NS</sup>
	Female	52.13	5.03	
Total learning style	Male	149.07	19.61	0.41 <sup>NS</sup>
	Female	151.00	16.25	

\* Significant at 0.01 level.

NS= Not significant

The table 3 examined the learning style of male and female undergraduate students. It was found that female students possess highest mean score and standard deviation (151.00, 16.25) in total learning style, verbal learning style (52.13, 5.03) and similarly male students also preferred to learn by verbal learning style (50.92). The t-value of total learning style, enactive learning style and verbal learning style comes out to be 0.41, 0.11 and 1.16 respectively, which is not significant at 0.05 level of significance. This shows that there was no significance difference between the mean achievement score of total learning style, enactive learning style and verbal learning style of male and female students. But, t-value of figural learning style of male and female students comes out to be 7.44\* which is significant at 0.01 level of significance. It shows that there was a significant difference between mean achievement score of figural learning style of male and female students.

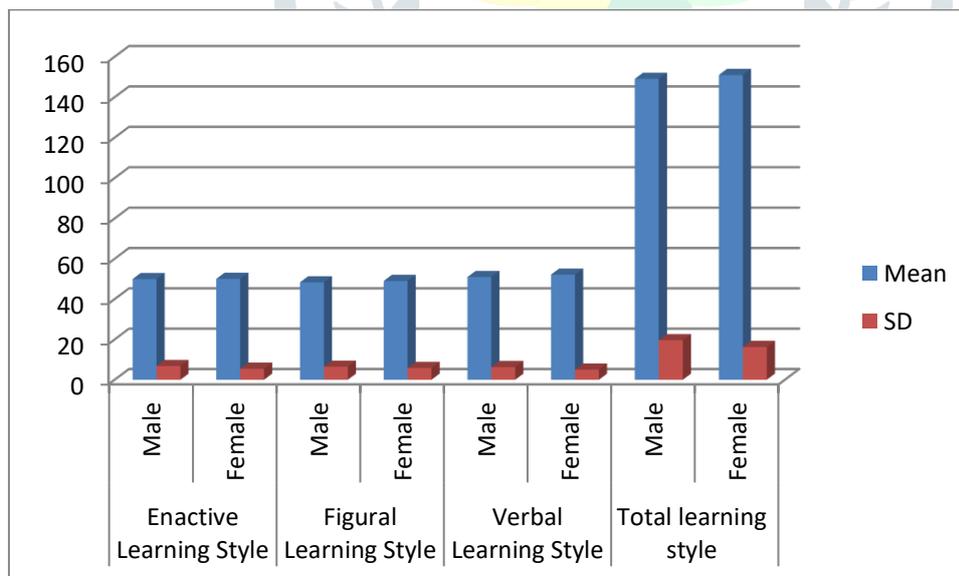


Figure-3

Figure 3 is illustrating the difference between enactive learning style, figural learning style, verbal learning style and total learning styles of arts and commerce male and female undergraduate students.

## Results and Conclusion

The study was conducted on learning style preference among undergraduate students. This study point out that verbal learning style mostly preferred, followed by to enactive and figural Learning style of undergraduate students.

The study showed insignificant difference found at 0.05 level was observed on total learning style, figural learning style and verbal learning style of arts and commerce undergraduate students. While significant difference observed in arts and commerce undergraduate students in enactive learning style at 0.05 level.

Where's Further no significance difference observed in total learning style, enactive learning style and verbal learning style of arts and commerce undergraduate students on the basis of gender. While t-value of figural learning style of male and female students comes out to be 7.44 which is significant at 0.01 level. So, there was a significant difference came out to be figural learning style of male and female undergraduate students.

## Education Implication

Education must recognize three broad learning styles in students; enactive, figural and verbal. Each style refers to a preferred way of receiving and processing information in order to learn. When you help your students to learn, you probably favor teaching methods that suit your own learning style. So, the study can be helpful to teachers to formulate appropriate teaching strategies and develop curriculum content by understanding students' preferred learning style. But, during this research study, it has been found that verbal learning style mostly preferred by undergraduate all students. Educator must recognize this three learning style to help the students to learn because these approach work for them to be the most effective.

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