



## **LEARNING STYLES OF HIGHER SECONDARY STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT**

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### **Abstract**

Every individual has its own natural or habitual pattern of acquiring and processing information in learning situations. The common ways or patterns by which people learn are known as their learning styles. Learning styles are essential elements for students' as learning styles have its strong influence on the achievement of a subject. The objective of the study is to investigate the relationship between learning styles and student's achievement. Suitability of students learning styles in the mathematics subjects will be more effective and provide a positive impact on students' academic if the teaching process and learning tailored to students' learning styles. The study included the categorical variables gender and medium of instruction. 187 students from various Government, Government Aided and Private schools in and around Salem district was involved. Normative survey method was adopted and stratified sampling technique was employed for the study. Learning styles scale standardized by Peter Honey and Alan Mumford (2006) was used. It consisted of 80 items. The data collected were subjected to the statistical technique like Percentage analysis, *t* – test and correlation. The *t* -test showed no difference between learning styles based on gender. Pearson correlation analysis showed significant relationship between learning styles and academic achievement of student.

**Keywords:** Learning styles, Academic achievement, Higher secondary school students



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## **INTRODUCTION**

Learning styles are simply different approaches or ways of learning. Learning style refers to students' preferences for some kinds of learning Activities over others. Characteristic approaches to learning and studying. Students who understand their own style are likely to be better learners, achieve higher grades, have more positive attitudes about their studies, feel greater self-confidence and exhibit more skill in applying their knowledge in courses.

A learning style is very important for every student as it has a strong influence in contradiction of achievement. A learning style is a method in which individuals absorb and retain new information or skills, regardless of how it is described, but the process is different for each individual. A learning style is a balanced measurement of a person resulting a person to react to the environment, how to interact and viewing something in the learning process.

## **REVIEW OF LITERATURE**

**Jayalakshmi., (2016)** studied attitude towards learning styles and academic achievement among high school students. The findings of the study revealed that there was no significant difference in learning styles among high school students in terms of gender.

**Norasyikin Omar et .al.,(2015)** investigated the dimensions of learning styles and students' academic achievement. The result showed that there was no significant relationship between the dimensions (active-reflective, visual-verbal, and sequential-global) of learning styles and academic achievement for Electrical Technology subject and only the second dimension (sensing-intuitive) there is a significant relationship with academic achievement of the Polibridged subject.

**Anuar Sopian, Salmah Ahmad, Kaseh Abu Bakar, Ezad Azraai, Jamsari and Hashim Mat Zin (2013)** took a study on learning styles among Arabic Language Students at University Teknologi Mara, Malacca Campus. Results showed that there was no significant difference in the learning styles between genders.

## **NEED AND SIGNIFICANCE OF THE STUDY**

Learning style refers to the ability of learners to perceive and process information in learning situations. Effective instruction reaches out to all students, not just those with one particular learning style. Now emerging needs of learning styles that influences students how to learn and facilitate learning for an individual in a given situation and makes clear, that a preferred way of learning and understanding subjects can also be distinguished in the way of proceeding. This means a task can be solved in a dissecting or in a scholastic way in combination to several modes of representation for example analytically or visually. Based on these points an attempt has been made by the investigator to develop learning styles and use them as support system to demonstrate the subject concepts and to study their effectiveness and achievements.

## **TITLE OF THE PROBLEM**

The statement of the problem as stated as “ **LEARNING STYLES OF HIGHER SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT**”.

## **OPERATIONAL DEFINITIONS OF THE STUDY**

### **LEARNING STYLES**

Learning styles are various approaches or ways of learning. It involves individual methods for processing information in learning new concepts. In this context learning styles include the four styles Activist, Reflector, Theorist, and Pragmatist.

### **ACADEMIC ACHIEVEMENT**

For academic achievement, Marks obtained in half- yearly examination (out of 1200 and converted in to 100) is considered.

### **HIGHER SECONDARY SCHOOL STUDENTS**

Higher secondary school students indicate the students those who are studying XI and XII Standard.

### **OBJECTIVES OF THE STUDY**

- ✚ To identify the level of learning styles by higher secondary school students
- ✚ To study the level of academic achievement of higher secondary school students
- ✚ To identify the significant difference in the learning styles of higher secondary school students based on the select sub samples
- ✚ To investigate the significant difference in the academic achievement of higher secondary school students based on the select sub samples
- ✚ To find the relationship between the learning styles and academic achievement of higher secondary school students based on the select sub samples

### **HYPOTHESES OF THE STUDY**

- ✚ The level of learning styles by higher secondary school students is moderate
- ✚ The level of academic achievement of higher secondary school students is moderate
- ✚ There is no significant difference in the learning styles of higher secondary school students based on the select sub samples
- ✚ There is no significant difference in the academic achievement of higher secondary school students based on the select sub samples
- ✚ There is no relationship between the learning styles and academic achievement of higher secondary school students based on the select sub samples

### **METHOD CHOSEN FOR THE STUDY**

Normative survey method was adopted for this present study.

### **POPULATION AND SAMPLE OF THE STUDY**

Population for the study is all the higher secondary students studying in government, aided, unaided schools in Salem district. The participants for this study considered XI and XII

students studying higher secondary schools in Salem district. The sample consists of 187 students.

### TOOLS USED IN THE STUDY

Learning styles scale standardized by Peter Honey and Alan Mumford (2006) was used. It consisted of 80 items on four styles viz. Activist, Reflector, Theorist, and Pragmatist.

### STATISTICAL TECHNIQUES USED IN THE STUDY

The collected data were analyzed by using statistical techniques like percentage analysis, t - test and correlation.

### DATA ANALYSIS OF THE STUDY

#### PERCENTAGE ANALYSIS

**TABLE – 1 NUMBER OF STUDENT FOLLOWING EACHING LEARNING STYLES**

LEARNING STYLES	NUMBER OF STUENTS	PERCENTAGE
ACTIVIST	33	17.65
REFLECTOR	47	25.13
THEORIST	44	23.53
PRAGMATIST	63	33.69
TOTAL	187	100.0

From the above table it is inferred that 33 students follow Activist style, 47 students adopt Reflector style, 44 students are of Theorist style while 63 students where it Pragmatist.

**TABLE – II FREQUENCY DISTRIBUTION REPRESENTING LEVEL OF ACADEMIC ACHIEVEMENT**

LEVEL	FREQUENCY	PERCENTAGE
LOW	39	20.86
AVERAGE	98	52.40
HIGH	50	26.74
TOTAL	187	100.0

From the above table it is inferred that 52.40 % of students had average level of academic achievement whereas the percentages of low and high achievers were found to be almost the same.

### DIFFERENTIAL ANALYSIS

#### A)LEARNING STYLES

##### HYPOTHESES - 1

There is no significant difference between the learning styles of higher secondary students based on the select sub samples gender and medium of instruction

**TABLE – III MEAN DIFFERENCES BETWEEN THE LEARNING STYLES OF HIGHER SECONDARY SCHOOL STUDENTS BASED ON GENDER AND MEDIUM OF INSTRUCTION**

<b>GENDER</b>						
<b>DIMENSIONS</b>	<b>BOYS (91)</b>		<b>GIRLS ( 96)</b>		<b>t VALUE</b>	<b>S/NS</b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>		
Activist	78.70	14.91	78.75	17.55	0.02	NS
Reflector	79.55	13.26	78.10	17.31	0.64	NS
Theorist	79.38	15.36	79.09	16.85	0.12	NS
Pragmatist	79.16	14.76	79.31	16.21	0.07	NS
Total	316.80	52.22	315.26	59.74	0.19	NS
<b>MEDIUM OF INSTRUCTION</b>						
<b>DIMENSIONS</b>	<b>TAMIL (50)</b>		<b>ENGLISH ( 137)</b>		<b>t VALUE</b>	<b>S/NS</b>
	<b>M</b>	<b>SD</b>	<b>M</b>	<b>SD</b>		
Activist	72.08	20.44	81.15	13.76	2.91	<b>S</b>
Reflector	74.22	16.47	80.48	14.77	2.36	<b>S</b>
Theorist	74.98	17.61	80.79	15.29	2.07	<b>S</b>
Pragmatist	75.76	17.08	80.51	14.71	2.17	<b>S</b>
Total	297.04	64.60	322.93	51.14	2.56	<b>S</b>

**NS – Not Significant S – Significant**

From the above table it is noticed that significant differences not noted in five cases. It is concluded that the hypothesis is accepted. As there is significant difference in remaining cases, it is concluded that the hypothesis is not accepted in these cases.

### **CONCLUSION**

- ✚ Boys and girls higher secondary school students do not differ in activist, reflector, theorist, pragmatist and in the total scores of learning styles.
- ✚ Tamil medium and English medium higher secondary school students differ activist, reflector, theorist, pragmatist and in the total scores of learning styles.

### **B) ACADEMIC ACHIEVEMENT**

#### **HYPOTHESES - 2**

There is no significant difference between the academic achievement of higher secondary students based on the select sub samples gender and medium of instruction

**TABLE – IV MEAN DIFFERENCES BETWEEN THE ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY SCHOOL STUDENTS BASED ON GENDER AND MEDIUM OF INSTRUCTION**

VARIABLES		M	SD	t	S / NS	
ACADEMIC ACHIEVEMENT	GENDER	BOYS	75.13	14.359	1.88	NS
		GIRLS	71.40	12.736		
	MEDIUM OF INSTRUCTION	TAMIL	72.28	12.339	0.60	NS
		ENGLISH	73.55	14.116		

**NS – Not Significant**

From the table it is understood that it is not noted that there are significant differences in all the cases. Hence the hypothesis is not accepted.

### CONCLUSION

- ✚ Boys and girls higher secondary school students do not differ in their academic achievement.
- ✚ Tamil medium and English medium higher secondary school students do not differ in their academic achievement.

### HYPOTHESES – 3

There is no relationship between the learning styles and academic achievement of higher secondary school students based on the select sub samples

**TABLE – V CORRELATION MATRIX FOR LEARNING STYLES AND ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY SCHOOL STUDENTS**

VARIABLES	'r' VALUE
LEARNING STYLES	0.22** (S)
ACADEMIC ACHIEVEMENT	

**S – Significant**\* \* Table value of r for df187 at 0.01 level is 0.058.

From the above table it is noticed that the variables learning styles and academic achievement exhibited a significant positive correlation of 0.22.

### CONCLUSION

- ✚ There is significant positive correlation between the learning styles and academic achievement of higher secondary school students.

### MAJOR FINDINGS OF THE STUDY

- ✚ 33 students follow Activist style, 47 students adopt Reflector style, 44 students are of Theorist style while 63 students where it Pragmatist.

- ✚ 52.40 % of students had average level of academic achievement whereas the percentages of low and high achievers were found to be almost the same.
- ✚ Boys and girls higher secondary school students do not differ in activist, reflector, theorist, pragmatist and in the total scores of learning styles and academic achievement.
- ✚ Tamil medium and English medium higher secondary school students differ activist, reflector, theorist, pragmatist and in the total scores of learning styles.
- ✚ Tamil medium and English medium higher secondary school students do not differ in their academic achievement.
- ✚ There is significant positive correlation between the learning styles and academic achievement of higher secondary school students.

### DISCUSSION ON THE FINDINGS

**AnuarSopian, Salmah Ahmad, Kaseh Abu Bakar, EzadAzraaiJamsari and Hashim Mat Zin,2013** showed that there was no significant differences in the learning styles between genders. This result is similar to the present study has found boys and girls higher secondary school students do not differ in activist, reflector, theorist, pragmatist and in the total scores of learning styles.

### CONCLUSION

The findings of the present study reveal that the most preferred learning style among higher secondary school students is pragmatic style of learning (33.69 %) followed by reflector (25.13 %), theorist (23.53 %) and activist (17.65 %) learning styles and students followed average level of achievement. It also revealed that the significant positive correlation between the learning styles and academic achievement of higher secondary school students.

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