

Effectiveness of Learning style on Educational Achievement of the Students of Standard-XI in Context to Gender

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ABSTRACT

In the Era of Change, teacher should consider the individual differences while teaching in the classroom. In fact teacher must keep in mind the individual differences for teaching. Students have so many talent, we as a teacher must have that angel of view of identifying it. This individual difference can be divided in dimension of Learning Style, too. Researcher is giving service in High School as a teacher, he observe such a learning style in class room. Is there any relationship between Educational Achievement and Learning Style? To find the answer of this question, present study was conducted.

Keywords: *Learning Style, Standard-XI, Gender, Educational Achievement*

There is always an individual difference in classroom. This individual difference has different angles. All students have their own styles to learn. There are different models defining learning styles i.e. Kolb's Model, VARK Model, VAK Model, etc. In VAK Model there are three modality of learning which is known as three learning styles. According to VAK Model, three Learning Styles are as followed:

- 1) Auditorial Learning Style
- 2) Visual Learning Style
- 3) Kinesthetic Learning Style

Dangaval and Mitra (1998) find that both ages have negative correlation. Present study was conducted to study the Educational Achievement of students in context of their Learning Style. **Diyaz and Kartanal (1999)** find that online students were found more independent than offline students and online students were found more reflective than Offline students. **Kokare (2000)** find that there were significant difference between students having reflective observation and active experimentation.

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Statement of Problem

For present study, Researcher studied Educational Achievement of standard-IX's students in context to their learning style with references to Gender.

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Objectives

Any study can't be meaningful unless objectives are formed, thus objectives for present study were as followed:

- ✓ To Construct L.S.I. (Learning Style Inventory)
- ✓ To study Educational Achievement of Students in context to their Learning Style.
- ✓ To study Educational Achievement of Students having Visual Learning style in reference to Gender.
- ✓ To study Educational Achievement of Students having Auditorial Learning style in reference to Gender.
- ✓ To study Educational Achievement of Students having Kinesthetic Learning style in reference to Gender.

Hypothesis

According to Objectives hypothesis were formed as followed:

HO₁ :There will be no significant difference between educational achievement of students having Visual and Auditorial Learning Style.

HO₂ : There will be no significant difference between educational achievement of students having Visual and Kinaesthetic Learning Style.

HO₃ : There will be no significant difference between educational achievement of students having Auditorial and Kinaesthetic Learning Style.

HO₄ :There will be no significant difference between Educational Achievement of boys and girls having Visual Learning Style.

HO₅ :There will be no significant difference between Educational Achievement of boys and girls having Auditorial Learning Style.

HO₆ :There will be no significant difference between Educational Achievement of boys and girls having Kinesthetic Learning Style.

Variables

Independent Variable

Learning Style	Visual Learning Style
	Auditorial Learning Style
	Kinesthetic Learning Style

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Dependent Variable

Educational Achievement of students
(Percentage of Standard-X obtain by students)

Moderator Variable

Gender	Boys
	Girls

Control Variable

Standard-IX
Medium- Gujarati
Area – Gandhinagar District

Population

“Population is a group from which representative sample is selected and findings are generalized.” Researcher has tested educational achievement of students in context to their learning style. For Presents study, Students studying in Standard-IX of Gandhinagar District in Gujarati medium is population.

Sampling

Sampling frame of all Higher Secondary Schools (Commerce Stream) in Gandhinagar District is made. This list is stratified in Rural and Urban and then Sample was selected in proper portion. All selected school’s all Standard-IX’s class’s all students were selected by Cluster sampling Technique. By this method 700 students were selected, but 93 students who were having same score on L.S.I. (Learning Style Inventory) removed. Thus, School’s selection was by Stratified Sampling Technique and Students were selected by Cluster Sampling Technique. Hence at last there were 607 students were selected in sample.

Tool for Data Collection

Researcher has made self constructed L.S.I. (Learning Style Inventory). For that following steps were followed:

Step-1 in depth study of three types of learning style

For present study, researcher selected V.A.K. (Visual, Auditorial and Kinaesthetic) Model among different learning Style Models. In this V.A.K. Model, Visual, Auditorial and Kinaesthetic Modality of learning was used as a component. To construct tool, in depth study of these three learning modality (Learning Style) was used.

Step-2 Writing of Statements for L.S.I. (Learning Style Inventory)

After studying three learning style in depth, statements for these three learning styles were framed.

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Step-3 Primary form of L.S.I. (Learning Style Inventory)

After writing statements for three learning styles, three separate lists were prepared. First form of L.S.I. (Learning Style Inventory) was prepared.

Step-4 Expert review of primary form of L.S.I. (Learning Style Inventory)

First form of L.S.I. (Learning Style Inventory) along with letter showing Objectives of study and Primary Information was given to experts to review.

Step-5 Piloting

After getting review from expert, necessary changes were applied and L.S.I. (Learning Style Inventory) was prepared for piloting. Piloting was done on sample size of 100 by purposive sampling technique.

After piloting for three lists of three different learning styles were prepared and also scored. All three tools were arranged in descending order according to scores. 't'-value was found between Upper 27% (27) Students and Lower 27% (27) Students statement wise. Statements having most significant difference were selected in final form of L.S.I. (Learning Style Inventory). Detail of Item Analysis of L.S.I. (Learning Style Inventory) is shown in Table No. 1

Table No. 1, Details of Item Analysis to Select Statements

No.	Learning Style	Total Statements	Selected Statements
1	Visual Learning Style	28	26
2	Auditorial Learning Style	26	15
3	Kinaesthetic Learning Style	25	20

Here there were 15 statements of Auditorial Learning Style having significant difference selected in final form of L.S.I. (Learning Style Inventory). For equal probability of statements response, 15 Statements of each Visual Learning Style and Kinaesthetic Learning Style having most significant difference were selected in final form of L.S.I. (Learning Style Inventory).

Step-6 Final form of L.S.I. (Learning Style Inventory)

After Item Analysis with letter of Primary Information and variables, final form of L.S.I. (Learning Style Inventory) was prepared.

Data Collection

For collecting data, permission was asked to principal of selected schools. After getting permission, rapport was established with students and then data was collected.

Data Analysis

- Obtain score was entered in Excel Programme of M.S. Office.
- All data was classified variable wise with the help of filter.
- To test Null Hypothesis, 't'-test was applied.

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Table No. 2, Nature of Sample in references to learning styles

No.	Learning Style	No. Of Students	Percentage
1	Visual Learning Style	386	63.59 %
2	Auditorial Learning Style	138	22.73 %
3	Kinaesthetic Learning Style	83	13.67 %
	Total	607	100 %

Pictorial Presentation is as followed:

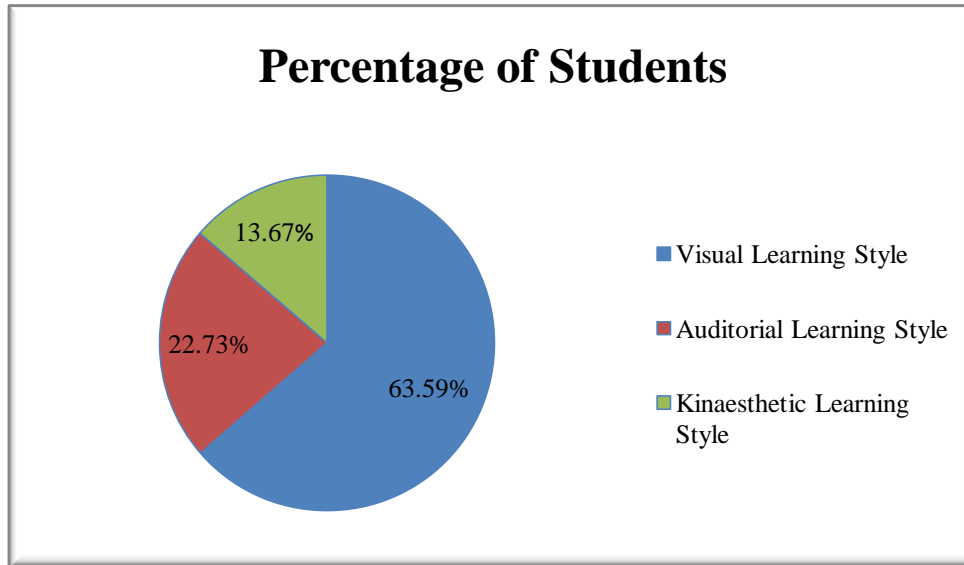


Figure showing nature of sample in references to learning styles

Table No. 3, Table showing standard-10's Percentage Mean, Standard Deviation, Standard Error of Deviation and t-value of students having Visual, Auditorial and Kinesthetic learning style

Group	N	M	SD	SED	t-value	Remarks
Visual Learning Style	386	64.30	12.34	1.09	1.42	NS
Auditorial Learning Style	138	62.76	10.44			
Visual Learning Style	386	64.30	12.34	1.25	1.87	NS
Kinaesthetic Learning Style	83	61.96	9.89			
Auditorial Learning Style	138	62.76	10.44	1.40	0.57	NS
Kinaesthetic Learning Style	83	61.96	9.89			

From Table No.3, we can say that Calculated Value of t is less than tabulated value of t at 0.05 level for all first three hypothesis. Hence H_{01} , H_{02} and H_{03} are accepted.

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Table No. 4, Table showing standard-10's Percentage Mean, Standard Deviation, Standard Error of Deviation and t-value of students having Visual, Auditorial and Kinesthetic learning style in context of Gender

Learning Style	Group	N	M	SD	SED	t-value	Remarks
Visual Learning Style	Boys	263	61.05	9.37	1.46	6.99	0.01
	Girls	123	71.25	14.85			
Auditorial Learning Style	Boys	109	63.83	10.37	2.08	2.46	0.05
	Girls	29	58.72	9.84			
Kinesthetic Learning Style	Boys	57	59.79	9.44	2.21	3.13	0.01
	Girls	26	66.72	9.31			

From Table No.4, we can say that Calculated Value of t is more than tabulated value of t at 0.01 level for Ho₄ and Ho₆ and Calculated Value of t is more than tabulated value of t at 0.05 level for Ho₅. Hence, Ho₄, Ho₅ and Ho₆ are rejected.

Findings

Findings for present study were as followed:

1. There was no significance different in educational achievement among students having Visual Learning Style, Auditorial Learning Style and Kinesthetic Learning Style.
2. In matter of educational achievement, Girls are superior to Boys among students having Visual Learning Style.
3. In matter of educational achievement, Boys are superior to Girls among students having Auditorial Learning Style.
4. In matter of educational achievement, Girls are superior to Boys among students having Kinesthetic Learning Style.

Conclusion

In present chapter researcher discussed Problem of study, Objectives, Importance of study, Limitation, etc. for knowing clear Pre-face for researcher. In next chapter researcher will discussed Importance of Review of related Literature and Review of previous research on the topic with the significance of the present study.

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Conflict of Interests

The author declared no conflict of interests.

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