

Study of Academic Achievement of Secondary School Students in Relation to Their Study Habits and Learning Styles

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Abstract

The present study focuses on the Academic Achievement of Secondary School Students in relation to their Study Habits and Learning Styles. Sample of 200 students were used to investigate the problem. The data were collected with the help of standardized tools prepared by VAK Learning Styles Victoria Chislett and Alan Chapman (Learning Style Tool, 2005), Mukhopadhyay and Sansanwal (Study Habits Inventory, 2011) and Academic Scores of the previous class are used for Academic Achievement. The study revealed that there was no interaction effect of Learning Styles and Study Habits on Academic Achievement of secondary school students. So, we can say that no one learning style can influence the academic achievement and study habits of the students. But there is a significant relationship between Academic Achievement and Study Habits of Secondary School Students. Study Habits also influence the academic achievement of students in a positive way.

Keywords: Learning Styles, Study Habits and Academic Achievement.

Introduction

Education is a process of facilitating learning or the acquisition of knowledge, skills, values, beliefs and habits. Education cannot be better without effective teaching. The aim of Education serves as broad guidelines to align educational processes to chosen ideals and accepted principles. The aim of Education simultaneously reflects the current needs and aspirations of society as well as its lasting values, and the immediate concerns of a community as well as broad human ideals. (National Curriculum Framework, 2005). Education itself in such advanced cultures becomes a matter of study since efficient and integrated means of transmission of knowledge becomes more and more critical. In our Education, many factors influence the educational system like Academic Achievement, Study Habits, Learning styles and others. Mostly Study Habits influence the Academic Achievement. It is very important in student's life and plays a major role in their academic achievement, because no one can succeed without studies. As the students are different, their study habits and techniques of study are different.

Study Habits is one of the greatest learning factors that hugely influences students' academic achievement. It undetermined by students at all levels, teachers, administrations or parents than the trend and menace or students both eternal and external examinations would continue to boom and become more learning. It combines nearly all other subjects such as study attitude, study methods and study skills in an

efficient way. Study means the applications of the mind to a problem or a subject, a branch of learning, an inquiry into a particular subject. Study skills or study strategies are approaches applied to learning. (Nagaraju, 2004).

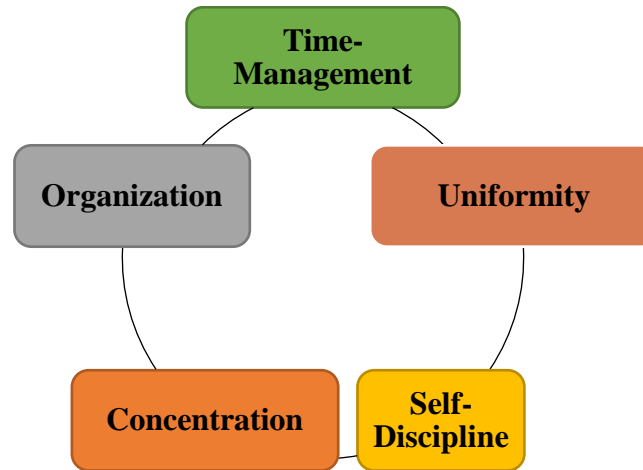


Image: 1 Characteristics of Study Habits

“The Study Habits is the tendency of the student to study when opportunities are offered, how the student should study whether it is systematic or not systematic, effective or ineffective. Study habits are the essence of a dynamic personality (Teuser, 2023). A proper study habits allows an individual to good crop in the future. Study habits is a process from which an individual an individual receives an appropriate contribution to feed his hunger and quench his thirst for knowledge. The study is the sum of all the habits, the determined objectives and the applied practices that the individual uses to learn. (Fisher, 2023).

Academic Achievement:

The word ‘achievement’ refers to the end gain or level of success attained by an individual or group after completion of a task whether it is academic, manual, personal or social. It is the realization, the substance and the tangibility of a dream fulfilled. It is multidimensional students’ ability and performance; and intricately related to human growth and cognitive, emotional, social and physical development. It reflects the whole child and is not related to a single instance. (Overy, 2021).

According to Good (1973), “Academic achievement is the knowledge, attitude or skill developed in the school subject usually designed by test scores or by marks assigned by teacher or by both. Academic achievement should be considered as a multifaceted construct that comprises different domains of learning as its field is very wide-ranging and covers a broad variety of educational outcomes.

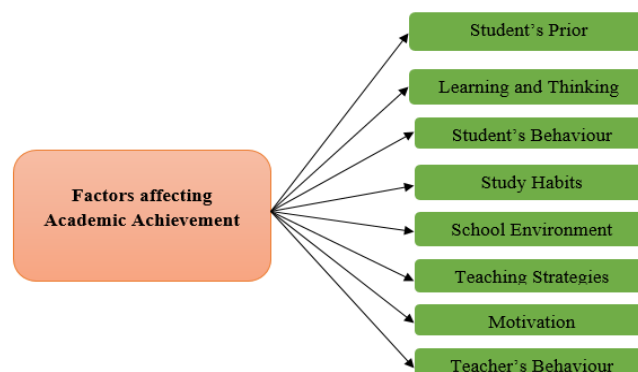


Image: 2 Factors affecting Academic Achievement

Learning style

Learning Style is that methodologies of learning through which a student learns. Each and every human being have his own and unusual way of learning. Some students learn by doing a work practically, some learn by hearing and some students learn by seeing a single or a number of concepts. This is due to individual differences among students. Every child is different from one another in terms of intelligence, motivation, problem solving ability etc. In other words, it denotes those techniques which are helpful in making a student to learn the concept. A good learning style is that one in which students learn best. Learning style is a technique which is used by individual to understand the subject matter properly. Learning style refers to the way one internally represents experiences and recalls or processes information. Learning style is regarded as the way of learning by different individuals. The concept of learning style is not only important among students but also among teachers, parents and general public. Learning styles indicate individual differences in learning. An individual's learning style in a technique of concentrating on processes, internalising and remembering new and important information or skills. Each and every individual's approach of learning is different from that of one another. (Verua, 2022).

Wordsworth (2007) "A good strategic student must understand the method of observing his learning goal, integrate the style of learning, use proper skills and be self-regulated to attain the best results from the learning style".

Statement of the Problem

Study of Academic Achievement of Secondary School Students in relation to their Study Habits and Learning Styles.

Delimitations of the Study

1. The study was delimited to Senior Secondary Students of 9th standard only.
2. The study was confined to Amritsar district schools only.
3. The sample was restricted to 200 students.

Objectives of the Study

1. To study Academic Achievement of Secondary School Students with respect to Gender.
2. To study Academic Achievement of Secondary School Students with respect to Locale.
3. To study the Study Habits of Secondary School Students with respect to Gender.
4. To study the Study Habits of Secondary School Students with respect to Locale.
5. To study the Learning Styles of Secondary School Students with respect to Gender.
6. To study the Learning Styles of Secondary School Students with respect to Locale.
7. To study the relationship between Academic Achievement and Study Habits of Secondary School Students.
8. To study the relationship between Academic Achievement and Learning Styles of Secondary School Students.
9. To study the interaction effect of Study Habits and Learning Styles in Academic Achievement of Secondary School Students.

Hypotheses of the Study

1. There is no significant difference in Academic Achievement of Secondary School Students with

respect to Gender.

2. There is no significant difference in Academic Achievement of Secondary School Students with respect to Locale.
3. There is no significant difference in Study Habits of Secondary School Students with respect to Gender.
4. There is no significant difference in Study Habits of Secondary School Students with respect to Locale.
5. There is no significant difference in Learning Styles of Secondary School Students with respect to Gender.
6. There is no significant difference in Learning Styles of Secondary School Students with respect to Locale.
7. There is no significant relationship between Academic Achievement and Study Habits of Secondary School Students.
8. There is no interaction effect in the Academic Achievement with respect to Learning Styles.
9. There is no significant interaction effect of Learning Styles and Study Habits on Academic Achievement of Secondary School Students.

Tools and Techniques

Three types of tools have been used in this research;

1. VAK Learning Styles Inventory by Victoria Chislett Msc and Alan Chapman (2005).
2. Study Habits Inventory by M.Mukhopadhyay and Sansanwal (2011).
3. Academic Scores of the previous class are used for Academic Achievement.

Study design

The study falls under Descriptive Research design.

Sample

For this Study, Random Sampling Technique was used by the investigator. In order to investigate the problem, sample of 200 students from urban (100) and rural (100) schools of Amritsar district were selected giving due weightage to Gender (Boys & Girls).

Statistical Analysis

The data was analysed by using appropriate statistical techniques like Mean, SD, Chi-Square, Pearson Correlation, One-Way ANOVA (Analysis of Variance).

Results and Conclusion

HYPOTHESIS-1

“There is no significant difference in Academic Achievement of Secondary School Students with respect to Gender”.

TABLE: 1.1 SHOWING MEAN SCORE, STANDARD DEVIATION AND P-VALUE OF ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO GENDER

Academic Achievement	Gender	N	Mean	SD	T-Test	P-Value
	Boys	100	526.130	129.49	.530	5.90

	Girls	100	535.830	129.36		
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** Not Significant at the 0.05 Level

The mean score of Academic Achievement of secondary school Boys was 526.130 and Girls was 535.830. Achievement of Girls was high as compared to Male as shown above in the table 1.1. So, there was significant difference between the academic achievement of secondary school students Boys and Girls while p-value was 5.90, which was greater than corresponding tabled value at 0.05 level. Therefore, our null hypothesis stating “*There is no significant difference in Academic Achievement of Secondary School Students with respect to Gender*” was accepted.

HYPOTHESIS-2

“*There is no significant difference in Academic Achievement of Secondary School Students with respect to Locale*”.

TABLE: 1.2

SHOWING MEAN SCORE, STANDARD DEVIATION AND P-VALUE OF ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO LOCALE

Academic Achievement	Type of Schools	N	Mean	SD	T-Test	P-Value
	Urban	100	526.210	132.28	.521	.603
	Rural	100	535.750	126.5257		

** Not Significant at the 0.05 Level

The mean score of urban schools was 526.210 and rural schools was 535.750. Achievement of rural schools was high as compared to urban schools as shown above in the table 1.2. So, there was significant difference between the academic achievement of secondary schools of rural and urban schools while p-value was .603, which was greater than corresponding tabled value at 0.05 level. Therefore, our null hypothesis stating “*There is no significant difference in Academic Achievement of Secondary School Students with respect to Locale*” was accepted.

HYPOTHESIS-3

“*There is no significant difference in Study Habits of Secondary School Students with respect to Gender*”.

TABLE: 1.3

SHOWING MEAN SCORE, STANDARD DEVIATION AND P-VALUE OF STUDY HABITS OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO GENDER

Study Habits	Gender	N	Mean	SD	T-Test	P-Value
	Boys	100	213	31.52	1.876	0.62
	Girls	100	204	34.96		

** Not Significant at the 0.05 Level

The mean score of Study Habits of secondary school Boys was 213 and Girls was 204. Study Habits of Boys was more than as compared to Girls as shown above in the table 1.3. So, there was significant difference between the Study Habits of secondary school Boys and Girls while p-value was 0.62, which was greater than corresponding tabled value at 0.05 level. Therefore, our null hypothesis stating was “*There is no significant difference in Study Habits of Secondary School Students with respect to Gender*” was accepted.

HYPOTHESIS-4

“There is no significant difference in Study Habits of Secondary School Students with respect to Locale”.

TABLE: 1.4

SHOWING MEAN SCORE, STANDARD DEVIATION AND P-VALUE OF STUDY HABITS OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO LOCALE

Study Habits	Type of Schools	N	Mean	SD	T-Test	P-Value
	Urban	100	206.300	30.05	1.105	0.271
	Rural	100	211.530	36.58		

** Not Significant at the 0.05 Level

The mean score of urban schools was 206.300 and rural schools was 211.530. Study Habits of rural schools was high as compared to urban schools as shown above in the table 1.4. So, there was significant difference between the Study Habits of secondary schools of rural and urban schools while p-value was 0.271, which was greater than corresponding tabled value at 0.05 level. Therefore, our null hypothesis stating *“There is no significant difference in Study Habits of Secondary School Students with respect to Locale”* was accepted.

HYPOTHESIS-5

“There is no significant difference in Learning Styles of Secondary School Students with respect to Gender”.

TABLE: 1.5

SHOWING CHI-SQUARE VALUE OF LEARNING STYLES OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO GENDER

Variables	Gender	N	df	Chi-Square Value	Asymp.sig. (2 Sided)
Learning Styles	Boys	100	2	38.104	0.000
	Girls	100			

** Significant at the 0.05 Level

The chi-square value of Learning Style was 38.104. The table 1.5 reveals the calculated p-value was found to be 0.000 which was less than the table value at the 0.05 level. Therefore, our null hypothesis stating *“There is no significant difference in Learning Styles of Secondary School Students with respect to Gender”* was rejected. So, different learning styles was also affect the achievement of Boys and Girls.

HYPOTHESIS-6

“There is no significant difference in Learning Styles of Secondary School Students with respect to Locale”.

TABLE: 1.6

SHOWING CHI-SQUARE VALUE OF LEARNING STYLES OF SECONDARY SCHOOL STUDENTS WITH RESPECT TO LOCALE

Variables	Type of Schools	N	df	Chi-Square Value	Asymp.sig. (2 Sided)
Learning Styles	Urban	100	198	1.625	.444
	Rural	100			

** Not Significant at the 0.05 Level

The chi-square value of Learning Style was 1.625. The table 1.6 reveals the calculated p-value was found to be .444 which was more than the table value at the 0.05 level. Therefore, our null hypothesis stating “*There is no significant difference in Learning Styles of Secondary School Students with respect to Locale*” was accepted. So, different learning styles was not effect the achievement of urban and rural schools.

HYPOTHESIS-7

“*There is no significant relationship between Academic Achievement and Study Habits of Secondary School Students*”.

TABLE: 1.7

SHOWING CO-RELATION (R) BETWEEN ACADEMIC ACHIEVEMENT AND STUDY HABITS OF SECONDARY SCHOOL STUDENTS

Variables	N	df	R	Remarks
Academic Achievement	200	198	0.35	Significant
Study Habits	200			

**Significant at the 0.05 Level

The table 4.7 reveals that Academic Achievement and Study Habits was significantly correlated with R=0.35. (Significant at 0.05 level) so it indicates that there was significant relationship between Study Habits and Academic Achievement of Secondary School Students. So, our null hypothesis stating “*There is no significant relationship between Academic Achievement and Study Habits of Secondary School Students*” was rejected.

HYPOTHESIS-8

“*There is no interaction effect in the Academic Achievement with respect to Learning Styles*”.

TABLE: 1.8

SUMMARY OF (ONE-WAY ANOVA) ANALYSIS OF VARIANCE

Source	SS	Mean	df	SD	MS	Total	F-Value
Between Treatments	71106.96	505.8846	2	131.5057	35553.48	528.98	2.01308
Within Treatments	3479271.99	547.662	197	132.0322	17661.27	133.57	
Total	3550378.95	537.7292	199	136.4506			

**Not Significant at the 0.05 Level

The table 4.8 reveals that the F-Value was 2.01308 (Not Significant at 0.05 Level), so it indicates that there was no interaction effect of Learning Styles and Study Habits on Academic Achievement of secondary school students. Therefore, our null hypothesis stating “*There is no interaction effect in the Academic Achievement with respect to Learning Styles*” was accepted.

HYPOTHESIS-9

“*There is no significant interaction effect of Learning Styles and Study Habits on Academic Achievement of Secondary School Students*”.

TABLE: 1.9
SHOWING INTERACTION EFFECT (ANALYSIS OF VARIANCE) OF LEARNING STYLES AND STUDY HABITS ON ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS

Learning Styles	Study Habits						Total	
	Above Average		Moderate		Below Average		Mean	SD
	Mean	SD	Mean	SD	Mean	SD		
Visual	505.12	119.91	508.31	110.28	536.63	158.82	511.00	120.61
Auditory	567.20	139.80	543.05	150.60	504.20	113.02	547.66	132.03
Kinesthetic	517.51	123.60	587.17	144.36	493.00	138.06	537.72	136.45
Total	530.18	129.59	538.02	127.59	512.76	135.21	530.98	129.19

TABLE: 1.9

SUMMARY OF ANALYSIS OF VARIANCE (TWO-WAY ANNOVA)

Dependent Variable	Independent Variable					
	Source	Sum of Squares	df	Mean Square	F-Value	Significant
Academic Achievement	Learning Styles	14517.713	2	7258.857	.439	.646
	Study Habits	28625.348	2	14312.674	.865	.423
	AXB	92552.713	4	23138.178	1.398	.236
	Error	3160580.476	191	16547.548		
	Total	59709718.000	200			

Leaning Style (A)

From the table 1.9 it can be seen that F-Value for Learning Style (A) was .439, which was not significant at 0.05 level it indicates that there was no interaction effect of Learning Style on Academic Achievement. Therefore, our Null Hypothesis stating “*There is no significant interaction effect of Learning Styles and Study Habits on Academic Achievement of Secondary School Students*” was accepted.

Study Habits (B)

From the table 1.9 it can be seen that F- Value for Study Habits (B) was .865, which was not significant at 0.05 level it indicates that there was no interaction effect of Study Habits on Academic Achievement. Therefore, our Null Hypothesis stating that “*There is no significant interaction effect of Learning Styles and Study Habits on Academic Achievement of Secondary School Students*” was accepted.

Learning Style and Study Habits (A X B)

From the table 1.9 it can be seen that F-Value for the interaction of Learning Style and Study Habits on Academic Achievement came out be 1.398, which was not significant at the 0.05 level. The insignificant interaction effect of Learning Styles and Study Habits was independent on Academic achievement of Secondary School Students. Therefore, our Null Hypothesis stating that “*There is no significant*”

interaction effect of Learning Styles and Study Habits on Academic Achievement of Secondary School Students” was accepted.

From the table 1.9, it can be seen that no one learning style can influence the academic achievement and study habits of the students.

Conclusion

At the end, we can say that, there was no interaction effect of Learning Styles and Study Habits on Academic Achievement of secondary school students. So, we can say that no one learning style can influence the academic achievement and study habits of the students. But there is a significant relationship between Academic Achievement and Study Habits of Secondary School Students. Study Habits also influence the academic achievement of students. So, Parents and Teachers should develop the qualities like efficient of time, power of cooperation, working with concentration, mixing with social activities for the enhancement of study habits among students.

Educational Implications:

When the individual knows his/her Learning Style, he/she will integrate it in the process of Learning so he/ she will learn more easily and fast and will be successful. The identifications of the own Learning style and Study Habits by the students is that it will help the student to become an effective problem solve. The more successful the individual is that at solving the problem he/she faces, the more control he/she will take over his/her own life. So, students must be administered for their Learning Style and Study Habits. Teachers are like the pillars of Educational System upon which the roof of Education is supported. The teachers must know about the various styles of learning prevalent in students in order to improve their learning and academic achievement. Teacher influences the student’s behaviour which in turn influence the learning of students. So, it is the responsibility of the teacher to adopt such teaching skills and techniques and study habits which serves all types of learners in the classroom and result in better academic achievement. So, it inculcates better learning and enhance academic achievement of secondary school students, visual learner may draw a map of events in history or draw scientific process, watch videos, use highlights, circle words, underline, take notes make list. Auditory learners may use words association, record lectures, listen videos, group discussions, taping notes etc. Kinaesthetic learners may study in short blocks, attend lab classes, take field trips, visit museums etc. study habits on the basis of different aspects writing habits, reading habits like Newspaper, Supplementary reading course, journals, magazines, novels, short stories. Students may improve their academic achievements and strengthen the weaken areas of studies teachers may find out own preferred learning styles and study habits which often becomes predominates learning style and study habits teachers may find out students learning style for better learning (Buray, 2020). Parents should be made aware about different kind of approaches help their child learns best. The present study helps in understanding the influence of good study habits and parents and teachers need to develop good study habits among students. Teachers should develop the qualities like efficient of time, power of cooperation, working with concentration, mixing with social activities for the enhancement of study habits among students.

Suggestions for Further Study:

1. The present study was conducted on a sample of secondary school students i.e., class 9th, only similar study may also be conducted at other levels.

2. The present study was conducted on variables Study Habits, Learning Style and Academic Achievement. Studies may also be conducted on other cognitive and non-cognitive variables.
3. This present study was restricted to the secondary school students of Amritsar district. Similar studies may also be conducted on other Districts and other States.
4. This study may be conducted on large sample to get reliable results.
5. The study can be conducted on Primary and Secondary School Students to check their learning styles and Study Habits.
6. Learning styles other than VAK can be studied using various Learning Style models.
7. The study can be conducted on Degree students and Professionals to identify their Learning Style.

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