

INFLUENCE OF STUDY HABITS ON THE ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY BIOLOGY SCHOOL STUDENTS

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ABSTRACT

Higher secondary is a stage of transition in a student's life, both academically and psychologically. Biology forms an important part of the syllabus of life science. It is the compulsory subject for the higher secondary school examination. A biology student is engaged in a human activity that is directed towards seeking new knowledge about living things. A student tries to acquire new concepts of biology through practicing science or passing through the process of biology. India shall need specialists in the fields of medicine, health, agriculture, animal husbandry, etc. The talent in these fields shall come from biology. Hence the investigation is mainly focused on "influence of study habit on academic achievement of higher secondary biology students". For the present study the investigator randomly selected a sample of 925 higher secondary biology students (438 males and 487 females). After framing necessary objectives and hypotheses appropriate analysis was carried out for the collected data. From the analysis it was found there is significant relationship between study habit and academic achievement with reference to background variables.

INTRODUCTION

Education today has become a powerful tool for the development of the society. Education is considered as an instrument for social changes resulting in industrialization, urbanization and social enlistment. Many people believe that education solves many of the individual and social problems, resulting in individual and social disorganization and disintegration. The main question is whether education can solve the social problems generating from social process. The educators believe that education should also take this added function within its purview.

The development of good study habits is the highway to the goals of an individual, whatever they are. A simple, small change in study habits makes a big difference in goal setting and organization of one's life. The success of an individual depends upon his study habits. Education is the manifestation of perfection already existing in man. The tool enabling his manifestation is study habits. According to Patel (1997), "general ability is mostly concerned with an innate ability while habits are generally formulated, acquired, cultivated and fixed by repeated effort. There may be a sizable number of pupils below the line

of average general ability. However, they might get good scores in their school achievement because of their good study habits.

NEED AND IMPORTANCE OF THE STUDY

Higher secondary school students belong to the adolescent stage of development. Adolescence is a period of concomitant growth. It is the formal operational stage of development (Piaget, 1952). They think in abstract terms, follow the logical propositions and form hypothesis. They can isolate the elements of a problem and systematically explore all possible solutions to problems. It is essentially a period of rapid development and transition and is full of complexities. Academic failure may lead to frustration and poor adjustment. They are emotionally disturbed and develop an unhealthy attitude towards life. The sense of failure complex which in turn may lead to a retreat into non communicative fantasy or overt misbehavior. Maximizing achievement scores is one of the goals of education.

Even a good student, who has the potentiality to achieve better, may not be able to achieve as per expectations if he/she fails to do proper management of time, allocation of

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weightage to various subject preparing notes and individual modes adopted for preparation of different subjects .In other words, habits and practices are relevant factors in determining the achievement of an individual. In order hence the problem is selected as “Influence of Study Habits on Academic Achievement of Higher Secondary Biology Students”

STATEMENT OF THE PROBLEM

The present study started as “INFLUENCE OF STUDY HABITS ON THE ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY BIOLOGY STUDENTS”.

OPERATIONAL DEFINITIONS

(i) Study habits: The term study habits means the skills, strategies and rules, method applied to the process of learning. Study habits can be studied in terms of home environment, reading and note taking, planning of the subjects, habits of concentration, habits and attitudes and school environment.

(ii) Achievement: Academic achievement is a measure of knowledge gained in formal education usually indicated by test scores, grade, point, average and degrees. For achievement, the investigator took the half yearly marks in respective school obtained by the higher secondary biology students in XIth and XIIth standard.

(iii) Higher Secondary Students: By higher secondary students the Investigator means the students doing standards XI and XII in higher secondary schools under Tamil Nadu state Board syllabus.

OBJECTIVES

1. To find out the significant difference ,if any, on study habits of biology students with reference to background variables such as gender, nativity of the student.
2. To find out the significant difference, if any, academic achievement of higher secondary biology students with reference to background variables such as gender, nativity of the student.

3. To find out the significant relationship, if any, between study habits and Academic achievement of biology students at higher secondary level with reference to background variable such as gender, nativity of the student

HYPOTHESES

1. There is no significant difference in study habits and its dimensions of higher secondary biology students with reference to gender.
2. There is no significant difference in study habits and its dimensions of higher secondary biology students with reference to nativity of the student.
3. There is no significant difference in academic achievement of higher secondary students in biology with reference to 1.Sex 2.Nativity of the student.
4. There is no significant relationship between study habits and academic achievement with reference to background variables.

METHODS USED FOR THE PRESENT STUDY

After reviewing the characteristics of the different methods of educational research, the investigator decided to use survey method for the present study.

POPULATION

The population of this study is the higher secondary school students studying in Kanyakumari, Tirunelveli and Thoothukudi districts in Tamilnadu.

SAMPLE

The investigator has used stratified random sampling technique to select a sample of 925 students (438 males and 487 females).

RESEARCH TOOL

Study Habits Inventory (SHI) scale was prepared and validated by D.Sivakumar and A.Amalraj.

STATISTICAL TECHNIQUES USED

For the present study, the investigator has used the following statistical techniques. Percentage analysis, mean and standard deviation, "t" Test to find out the significant difference, Pearson product moment correlation.

HYPOTHESES TESTING

Hypothesis.1: There is no significant difference in study habits and its dimensions of higher secondary biology students with reference to sex.

Table - 1
Difference in study habits and its dimensions of higher secondary biology students with reference to sex

Dimensions	Boys (N =438)		Girls (N =487)		Calculated 't' value	Remarks at 5% level
	Mean	SD	Mean	SD		
Studies at home	41.74	4.43	42.24	4.35	1.70	NS
Reading and note taking	43.37	4.71	42.91	5.78	1.31	NS
Planning of the subject	37.89	4.23	37.77	4.05	0.44	NS
Habit of concentration	36.73	4.50	37.44	4.78	2.31	S
Preparation for examination	57.55	6.07	58.07	7.53	1.13	NS
General habits and attitudes	37.86	4.27	36.95	5.09	2.94	S
Studies at school	39.31	4.35	39.36	5.09	0.17	NS
Total study habits	294.41	22.80	294.61	24.85	0.12	NS

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between boys and girls students in their studies at home, reading and note taking, planning of the subject, preparation for examination, studies at school and total study habits. But there is significant difference between boys and girls students in their habit of concentration and general habits and attitudes.

Hypothesis.2: There is no significant difference in study habits and its dimensions of higher secondary biology students with reference to nativity of the student.

Table- 2
Difference in study habits and its dimensions of higher secondary biology students with reference to nativity of the student

Dimensions	Rural Student (N = 405)		Urban Student (N = 520)		Calculated 't' value	Remarks at 5% level
	Mean	SD	Mean	SD		
Studies at home	41.79	4.87	42.16	3.98	1.27	NS
Reading and note taking	43.46	5.50	42.87	5.13	1.68	NS
Planning of the subject	37.69	4.45	37.94	3.88	0.90	NS
Habit of concentration	37.14	5.17	37.08	4.23	0.18	NS
Preparation for examination	57.27	7.53	58.26	6.30	2.17	S
General habits and attitudes	36.95	4.92	37.71	4.57	2.41	S
Studies at school	39.08	5.10	39.54	4.46	1.45	NS
Total study habits	293.30	25.33	295.46	22.68	1.36	NS

(At 5% level of significance, the table value of 't' is 1.96)

It is inferred from the above table that there is no significant difference between rural students and urban students in their studies at home, reading and note taking, planning of the subject, habit of concentration, studies at school and total study habits. But there is significant difference between rural student and urban student in their preparation for examination and general habits and attitudes.

Hypothesis.3: There is no significant difference in academic achievement of higher secondary students in biology with reference to 1.Sex 2.Nativity of the student 3.Status of the family

Table 3
Difference between academic achievements of higher secondary students in biology with reference to background variables

Influence of study habits on the academic achievement of higher secondary biology school students

Background Variables	Mean	SD	Count N	Calculated value 't'	Remarks
Boys	126.18	27.05	438	3.30	S
Girls	132.05	26.82	487		
Rural	126.86	26.32	405	2.39	S
Urban	131.15	27.53	520		
Nuclear	132.37	27.57	549	4.24	S
Joint	124.74	25.71	376		

(At 5% level of significance, the table value of 't' is 1.96)

Since the calculated value of 't' is greater than the table value for 923 degrees of freedom of 5% level, the hypothesis is rejected. Therefore there is significant difference in academic achievement of higher secondary students in biology with reference to background variables.

Hypothesis.4: There is no significant relationship between study habits and academic achievement with reference to background variables.

Table -4. Relationship between study habits and academic achievement with reference to background variables

S.No	Variable	Categories	"r" value	Table	Result
1.	Sex	Male	0.290	0.088	S
		Female	0.245	0.088	S
2.	Nativity of the learner	Rural	0.237	0.088	S
		Urban	0.284	0.088	S
3.	Family status	Nuclear	0.162	0.088	S
		joint	0.140	0.088	S

Since the calculated value of 'r' is greater than the table value at 5 % level of significance, the hypothesis is rejected. Therefore there is significant relationship between study habits and academic achievement with reference to background variables.

DISCUSSION

There is a significant difference between boys and girls students in their habit of concentration, general habit and attitude. In habit of concentration, girls are better than boys. This may be due to the fact that girls are naturally studious and they have less deviation in the society. In general habit and attitude boys are

better than girls. This may be due to the fact that self interest, motivation and interact freely with the society. There is a significant difference between rural students and urban student in their preparation for examination, general habit and attitudes. This may be due to the fact that awareness of study habit and studying competition school. There is significant relationship between study habits and academic achievement with reference to background variables. It shows that these variables do have impact over the establishment of relationship between those traits.

RECOMMENDATIONS AND EDUCATIONAL IMPLICATIONS OF THE STUDY

1. The government should provide fund for schools in an adequate manner to buy the aids. And the regular staff should be appointed for teaching biology in all schools.
2. Teacher's behaviour must be conducive and clear cut friendly manner for the students.
3. Guidance and counseling may be given to the students about various good study habits and their importance in their academic career in the higher secondary level.
4. The students may be made available with various literatures on study habits.
5. The mode of examinations to test the aural, oral and communicative skills of students, just being introduced by the directorate of government examinations with due credit at the final and concluding examination at the higher secondary stage thereby enabling them to develop good study habits.
6. A "How to study" summer course of 30-45 days may be imparted to the interested students and those who have undergone this course may be given due preference in joining the desired group at the high secondary stage itself.
7. Group discussions may be arranged by the teachers then and thee to enable them active high.
8. The low achievers may be induced to participate in co-curricular activities of their interest in the view of helping them develop good study habits.

9. The various elements which are acting as hurdles or barriers in developing good study habits may be identified and not be allowed to exert their impact in this regard.
 10. The students themselves may be made to realize the importance of good study habits in their academic career.
 11. The students should plan a proper time schedule. The time schedule may be followed strictly which in due course, becomes routine in the minds of the students. While preparing a time schedule by the students, priority may be given according to the need of the programme.
 12. Spaced studying can be encouraged instead of un-spaced studying. This may improve one's memory-power and help in avoiding studying. This may improve one's memory-power and help in avoiding day dreaming due to continuous studying.
6. A comparative study on the academic achievement of professional and other college students may be done.

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SUGGESTIONS FOR FURTHER RESEARCH

1. This study covers only Kanayakumari, Thoothukudi and Tirunelveli district in Tamil Nadu state. A similar study may also be conducted in other districts of Tamil Nadu.
2. A comparative study on the academic achievement of school and college students could be undertaken.
3. Academic achievement in relation to psychological aspect of the subjects could be studied.
4. Similar study may be undertaken in other subjects such as Mathematics, Physics, Chemistry, Social science and languages.
5. A study of academic achievement in relation to intelligence and other social variables may be taken up.