STUDY HABITS OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR ACADEMIC ACHIEVEMENT IN SCIENCE

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Abstract

The present study was conducted to examine the study habits of senior secondary school students in relation to their academic achievement in science. The sample comprised of 80 students studying in private senior secondary schools of Chandigarh. The data was collected by using Study Habits Inventory (SHI) by Mukhopadhyay and Sansanwal (2005) and marks in science obtained in the previous class were taken as academic achievement scores. The findings revealed that significant difference was found in study habits of senior secondary girl and boy students whereas no difference was found in the academic achievement in science in relation to gender. Significant correlation between academic achievement in science and study habits was found.

Keywords : *Study habits, Academic Achievement, Science*

Introduction

Habits play a pre- dominant role in determining the quality of one's life. The habits of the individuals shape their personality and character, which in turn shape their destiny. Inculcation of good habits have been emphasized by all cultures and societies of the world so that individuals lead a happy and successful life. Habits are surely crucial factors in paving path in one's life. Every human being aspires to be successful. Out of many factors contributing for a successful life, academic achievement is considered to be a pivotal one. In today's highly competitive world, excelling in academic achievement has become a major drive among students to ensure their successful professional future. Study habits seem to play an important role in achieving desired level of academic performance.

In simple terms, a study habit is, buying out a dedicated scheduled and uninterrupted time to apply one's self for the task of learning. These learning tendencies enable students to work privately. So, it is a well-planned and deliberate pattern of study which has attained a form of consistency on the part of the students towards understanding academic subjects and passing at examination (Chowdhury and Ghose, 2014).Study habits are mainly external factors that facilitate the study process such as sound study routines that include how often a student engage in studying sessions, review the material, self-evaluate, rehears explaining the material, and studying in a conducive environment.Study habits refer to the tendency of

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a student to use his/her uninterrupted attention to acquire knowledge via systematic routines (Credé and Kuncel, 2008 and Khurshid, Tanveer, and Qasmi, 2012).Several studies have reported a significant difference between the study habits of girls and boys wherein study habits of girls have been found better than boys (Kumari and Cahmudeshwari, 2015 and Singh, 2011), on the other hand, study habits of boys have been found better than girls (Gudaganavar and Halayannavar, 2014 and Khurana, 2014).Contrary to this, some studies revealed no significant difference in study habit of girls and boys (Hassan and Apparao, 2102; Barwal, 2013 and Nuthana and Yenagi, 2009).

Academic achievement refers to what a student has to achieve in different subjects of studies during the course of academic years. It encompasses many aspects of student's accomplishments in school including progress in core academic subjects-maths, science, language, arts and social studies as well as in subjects that are emphasized less frequently in the contemporary curriculum such as athletics, music, arts and commerce (Kaur and Sharma, 2016). Academic achievement is a multidimensional and multifaceted phenomenon. There are innumerable factors which affect academic achievement viz. intelligence, personality, motivation, school environment, heredity, home environment, learning, experience of school, interests, aptitudes, family background, socio-economic status of the parents, and many more. Significant differences in achievement of boys and girls have been reported in several studies wherein boys have been found to outscore girls (Garikai and Bonga, 2010 and Umunadi, 2009) and girls out performing boys (Asthana, 2012; Kumari and Chamudeshwari, 2015 and Singh, 2011). Some studies revealed that boys and girls did not differ significantly in academic achievement (Nuthana, 2007; Singh and Parveen, 2010).

A number of research findings concluded that study habits and academic achievement are significantly co-related (Ergene, 2011; Mashyekhi et. al, 2014; Sutherman and Vasanthi, 2011 and Vanita, 2011). Sutherman and Vasanthi (2011) also found that girls are better in study habits and academic achievement than boys. On the other hand, there are studies which reveal that study habits of pupils do not have any significant influence on their academic achievement (Lawrence, 2014).

Academic achievement of students in science at senior secondary level is of great importance as it is one of the deciding factors for their admission in various courses in higher education. Along with other factors such as interest, intelligence quotient, aptitude, home and school environment etc., study habits that encompass comprehension, focused attention and following schedules are considered to be crucial for students to achieve high academic scores. Researches carried out in this area do not arrive to conclusive results as the findings of several studies are contradictory. Significant relationship between study habits and academic achievement has been reported by some studies whereas others point towards no significant relationship. These contrary reports aroused investigator's interest and led her to further investigate the relationship between

study habits and academic achievement.

Objectives

- To study the differences in the study habits of senior secondary girl and boy students.
- To study the differences in the academic achievement in science of senior secondary girl and boy students.
- To study the correlation in the study habits and academic achievement in science of senior secondary girl and boy students.

Hypotheses

- There exist no significant differences in the study habits of senior secondarygirl and boy students.
- There exist no significant differences in the academic achievement in science of senior secondary girl and boy students.
- There exists no significant correlation in the study habits and academic achievement in science of senior secondarygirl and boy students.

Delimitation of the Study

The study was delimited to class XI science students studying in three private schools of the Union Territory of Chandigarh only.

Methodology

Research Method

Descriptive survey method was used in the present study.

Tools Used

In the present study, following tools were used:

[1] Study Habits Inventory (SHI) by Mukhopadhyay and Sansanwal (2005).

[2] For academic achievement in science, marks scored in previous years were taken from the school records.

Sample

The study was conducted over a sample of 80 science students (40 boys and 40 girls) senior secondary school students studying in three private schools of Chandigarh. Schools were taken randomly through lottery method and students of science sections

were taken in clusters.

Statistical Techniques Used

Data was analysed by employing descriptive statistics such as Mean, Median and Standard Deviation, Skewness, Kurtosis. t-test was applied to determine the significance of the differences between the means of study habits and academic achievement of girl and boy students studying in the schools of Chandigarh. Pearson's Product Moment Correlation was computed to determine the relationship between the study habits and academic achievement in science of girl and boy students studying in the schools of Chandigarh.

Results & Discussion

Table 1: Difference in the study habits of senior secondary girl and boy students

Variable	Students	N	Mean	SD	t-Ratio	Level of Significance
Study	Boys	40	81.25	27.95	2.40764	05
Habits	Girls	40	77.7	46.79		

Table 1 shows the calculated t-value between the mean scores of study habits of the senior secondary boy and girl students is 2.40764 which is significant at 0.05 level only. Thus, the hypothesis that there exist no significant differences in the study habits of senior secondarygirl and boy students is not retained and alternate hypothesis is accepted. Some studies have reported a significant difference between the study habits of girls and boys wherein study habits of boys have been found better than girls (Gudaganavar and Halayannavar, 2014 and Khurana, 2014). On the other hand study habits of girls have been found better than boys (Kumari and Cahmudeshwari, 2015 and Singh, 2011).Contrary to this, some studies revealed no significant difference in study habit of girls and boys (Hassan and Apparao, 2102; Barwal, 2013 and Nuthana and Yenagi, 2009).

Table 2:Difference in the academic achievement of senior secondary girl and boy students

Variable	Students	N	Mean	SD	t-Ratio	Level of Significance
Academic	Boys	40	172.3	11.56		

Achievement	Girls	40	151.55	17.37	1.07571	NS

Table 2 shows the calculated t-value between the mean scores of academic achievement of the senior secondary boy and girl students is 1.07571 which is not significant at both 0.05 and 0.01 levels. Thus, the hypothesis that there exists no significant difference in the study habits of senior secondarygirl and boy students is retained. These findings are suggestive of the narrowing gender gap as in cities like Chandigarh, both girls and boys irrespective of their gender compete equally in their academics. Supporting studies also report similar findings (Nuthana, 2007; Singh and Parveen, 2010). Significant differences in achievement of boys and girls have been reported in several studies. Boys have been found to outscore girls (Garikai, 2010 and Umunadi, 2009) and girls out performing boys (Asthana, 2012; Kumari and Chamudeshwari, 2015 and Singh, 2011).

Table 3: Coefficient of correlation between study habits and academic achievement total students

Variables	Study Habits	Academic Achievement	Level of Significance
Study Habits	1	0.8476	0.01
Academic Achievement in science	0.8476	1	

Table 3 shows the value of coefficient of correlation between the study habits and academic achievement score in science is 0.8476 (df=78, N=80), indicating that there is a significant relationship between the variables at both 0.05 and 0.01 levels. Thus, the hypothesis that there exists no significant difference in the study habits of senior secondarygirl and boy students is not retained and alternate hypothesis is accepted. This finding is in consonance with the inferences drawn by some earlier research studies (Ergene, 2011; Mashyekhi et. al, 2014; Sutherman and Vasanthi, 2011 and Vanita, 2011). Sutherman and Vasanthi (2011) also found that girls are better in study habits as well as academic achievement than boys. Contrary finding by Lawrence (2014) indicated no significant correlation between study habits of pupils and their academic achievement .

Conclusions

On the basis of the findings, we may conclude that:

- There exist significant differences in the study habits of senior secondarygirl and boy students. Boys have been found to have better study habits than girls.
- There exist no significant differences in the academic achievement in science of senior secondary girl and boy students.
- There exists significant correlation in the study habits and academic achievement in science of senior secondarygirl and boy students which infers that better the study

habits, higher in the academic achievement in science.

Educational Implications

Findings of the study reveal that there is significant positive relationship between the study habits and academic achievement in science. It implies that study habits are important factors in significantly influencing academic achievement of science students at senior secondary level. Good study habits should be emphasized from the formative years of school education. These habits should be inculcated among the students to learn and understand complex concepts and phenomena of science effectively that will in turn enhance their academic performance. It is, therefore, recommended that teachers, parents, school counsellors and administrators should join hands in providing such environment to students that is stimulating for improving their study habits.

References

Asthana, M. (2012).Self-Concept, Mental Ability and Scholastic Achievement of Secondary School Students of Varanasi. Journal of Community Guidance and Research., 28: 1: 82-88 Ret rieved From: htt p:// shod hgan ga.inf libnet .ac. in/b itst ream/106 03/4 498/ 11/ 11_references.pdf (01/12/2016).

Barwal, K.S. (2013). Study Habits of Rural And Urban Secondary School Students: A Comparative Study. The Light of Education, 2 (2.) 97-109 Retrieved From: http:// gangainstituteofeducation.com/june/2.pdf (11/10/2016).

Chowdhury, S. and Ghose, A. (2014).Effects of Patterns of Parenting on Study Habits of Adolescents. International Journal of Humanities and Social Science Invention, (ISSN 2319
- 7722(O) 2319 - 7714(P)) 15-19 Retrieved from: http://www.ijhssi.org/papers/v3(3)/Version- 2/B0332015019.pdf (09/08/2016).

Crede, M.andKuncel, N. (2008). Study Habits Meta-Analysis, Perspectives on Psychological Science In Press vol. 3 No. 6 p. 425- 453 Retrieved at www.psychologicalscience.org/ journals/pps/3_6_inpress/crede.pdf Retrieved on May 13, 2010 Retrieved From:http:// www.academypublication.com/issues/past/jltr/vol02/05/21.pdf (08/12/2016).

Ergene,T. (2011). The Relationship among Test Anxiety, Study Habits, Achievement Motivation and Academic Performance among Turkish High School Students. Education and Science, 36, (160) Retrieved From: http://oaji.net/articles/2016/1170-1453806341.pdf (09/10/2016).

Garikai and Bonga, W. (2010).Determinants of Poor Academic Performance.Retrieved from Internet on March13 Retrieved From:http://shodhganga.inflibnet.ac.in/bitstream/10603/4498/ 11/11_references.pdf (05/11/2016).

Gudaganavar, N.V. and Halayannavar, R.B. (2014).Influence of Study Habits on Acedemic Performance of Higher Primary School Students. Vol. 3 (ISSN 2319-7064) 277-280 Retrieved From:https://www.ijsr.net/archive/v3i2/MDIwMTM5Mzg%3D.pdf (15/10/2016).

Hassan, D. and AppaRao, A.V. (2012). Relationship between Study Habits Socioeconomic Status and Academic Achievement of Class X Students.Edutracks, 11 (12) 43-48 Retrieved From: http://gangainstituteofeducation.com/june/2.pdf (28/11/2106).

Kaur, B. and Sharma, M. (2016). Cognitive Style of Adolescents in relation to Academic Achievement in English Language. The Education Beacon, Vol. 5, (ISSN 2249-4154) 127- 133 (24/10/2016).

Khurana, V. (2014). Study Habits and Academic Achievement of Hostellers. Indian Journal of Psychometry and Edu cation, 45 (1) 101-105 Retrieve d From:h ttp: // gangainstituteofeducation.com/june/2.pdf (25/11/2016).

Khurshid,D.F., Tanveer. A. and Qasmi, F.N. Relationship between Study Habits and Academic Achievement among Hostel Livingand Day Scholars' University Students.British Journal of Humanities and Social Sciences. 2012; 3(2): 34-42. Available from: http://www.ajournal.co.uk/ HSpdfs/HSvolume3%282%29/HSVol,3%20%282%29%20Article%204.pdf Retrieved From: www.sciedupress.com/journal/index.php/cns/article/download/8887/5689 (08/12/2016).

Kumari, S.V.R. and Chamudeswari, S. (2015). Achievement Motivation, Study Habits and Academic Achievement of the Students at the Secondary Level. International Journal of Emerging Research in Management and Technology, Vol. 4 (ISSN 2278-9359) 7-13 Retrieved from: https://www.ermt.net/docs/papers/Volume_4/10_October2015/V4N10-122.pdf (04/ 11/2016).

Lawrence, A.S. (2014). Relationship between Study Habits and Academic Achievemnet of Higher Secondary Students. Indian Journal of Applied Research, Vol. 4 (ISSN 2249-555X) 143-145 RetreivedFrom :http://files.eric.ed.gov/fulltext/ED545803.pdf (08/12/2016).

Mashayekhi, F., Rafati, S., Mashayekhi, M., Rafati, F., Mohamadisardoo, M.R. and Yahaghi, E. (2014). The Relationship between the Study Habits and the Academic Achievement of Students in Islamic Azad University of Jiroft Branch. International Journal of Current Research and Academic Review, 2(6), pp. 182-187 Retrieved From:https://www.ermt.net/docs/papers/ Volume_4/10_October2015/V4N10-122.pdf (07/11/2016).

Mukhopadhyaya, M. and Sansanwal, D.N. (2005).Manual for Study Habit Inventory (SHI).Agra: National Psychological Corporation.

Nuthana, P. C. (2007). Gender Analysis of Academic Achievement among High School

Students. Thesis Submitted in University of Agricultural Science, Dharwad. Retrieved From:http://shodhganga.inflibnet.ac.in/bitstream/10603/4498/11/11_references.pdf (02/11/2016).

Nuthana,P.G. and Yenagi, G.V. (2009). Influence of Study Habits, Self Concept and Academic Achievement of Boys and Girls, Karnataka, J. AgricSci, 22(5), 1135-1138 Retrieved From: http://www.onlinejournal.in/IJIRV2I9/061.pdf (04/11/2016)

Singh, S. and Praveen, T. (2010).Social Maturity and Academic Achievement of High School Students. Canadian Journal on Scientific and Industrial Research 1, 1 Retrieved From: http://shodhganga.inflibnet.ac.in/bitstream/10603/4498/11/11_references.pdf (08/12/2016).

Singh, Y.G. (2011).Academic Achievement and Study Habits of Higher Secondary students. International Referred Research Journal, Vol. 3 (ISSN 0975-3486) 19-20 Retrieved from: https://rivfelsher.files.wordpress.com/2010/04/music-article-4-from-lucas1.pdf (06/12/2016).

Sutherman, S. and Vasanthi, A. (2011). Study Habits and Academic Achievement of XI Standard Students in Palani Educational District. Edutracks, 10(11), 39-42 Retrieved From:http://gangainstituteofeducation.com/june/2.pdf (02/12/2016).

Umunadi, E.K. (2007). Effect of Teacher-constructed Circuits on students' achievement in basic electricity in technical colleges in Nigeria. International Journal of Scientific Research in Education, (IJSRE) manuscript #:03-2009-06-RV Retrieved From: https://scholar.lib.vt.edu/ejournals/JITE/v46n3/pdf/umunadi.pdf (03/12/2016).

Vanita, N.K. (2011). Study Habits of the Secondary and Higher Secondary School Students. Edutracks, 10(10) Retrieved From: https://www.ermt.net/docs/papers/Volume_4/10_October2015/V4N10-122.pdf (05/12/2016).