ASSOCIATION BETWEEN LEVEL OF STUDY HABITS AND PROBLEM SOLVING ABILITY AMONG HIGH ACHIEVERS IN HIGHER SECONDARY SCHOOL STUDENTS

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ABSTRACT:
The purpose of the study was to examine the association between level of study habits and problem solving ability among high achievers in higher secondary school students. For this purpose 248 higher secondary school students in Kollam district were selected. Study habit inventory and problem solving ability test were used. The study revealed that most of High study habit groups have average level of Problem Solving ability (92%), 85.0% of students from average study habits group have average level of Problem Solving ability. So it is concluded that study habits among higher secondary school students associate the Problem solving ability at average level. There is significant dependency between the level of study habits and problem solving ability among high achievers.

KEYWORDS: high achievers, Problem solving ability, higher secondary school students.

INTRODUCTION
Study habit is one of the greatest students or learning factors that hugely influences students’ academic achievements. If undermined by students at all levels, teachers, administrators, parents and guardians, school counselors and the government, then, the trend and menace of students’ abysmal performance in both internal and external examinations would continue to studying involves highly active behavior over a period of time. In other words, to study effectively, one must read, draw, compare, memorize and test himself over time. The concept of study habit according to Husain (2000) is broad, as it combines nearly all other sub-concepts such as study attitude, study methods and study skills. Attitude is a mental and natural state of readiness, organized through experience, exerting a direct influence on the individual’s response to all objects and situations with which is related. Attitude towards study has great contribution on academic achievement, and good study pattern. Successful learners adopt positive attitude towards study, and do not waste time or energy over what they have to do. If the learning experience is pleasant, the learner’s attitude and motivation is usually positive, and if the learning experience is not pleasant he tends to avoid it. Negative attitude towards study sometimes finds expression in comment such as “I study but cannot remember what I study” or “the lessons are too long”. Attitude serves as index on how we think and feel about people, objects and issues in our environment. Study attitude,
according to Husain (2000), refers to the predispositions which students have developed towards private readings through a period of time. According to him, study attitude offers great possibilities for successful achievement in studies. Study method is the knowledge and application of effective study skills or techniques by students. Several study methods have been identified several effective study methods and skills that could be used by students based on the learning environment (Husain, 2000). Kelli (2009) posits that for students to succeed in their studies, they must be able to appropriately assimilate course content, digest it, reflect on it and be able to articulate the information in written and/or oral form. What is fundamental is the ability of a student to acquire effective study habits. Many students feel that the hours of study are the most important. However, students can study for hours on end and retain very little. The more appropriate question is how students should study more effectively. Developing good time management skills is very important. Students must realize that there is a time to be in class, a time for study, time for family, time to socialize and time to just be alone. The critical issue is recognition that there must be an appropriate balance. Students should also have vision. A clearly articulated picture of the future they intend to create for themselves is very important and contributes to students’ success in school. This will promote a passion for what they wish to do. Passion is critical and leads to an intense interest, dedication and commitment to achieving career goals and objectives. Marc (2011) explains that students with learning problems, however, may still have generally inefficient and ineffective study habits and skills. Becoming aware of your learning habits or styles will help students to problem solving ability. A problem is any unpleasant situation which prevents people from achieving what they want to achieve. Any activity to eliminate a problem is termed problem solving. Problem solving skills refers to our ability to solve problems in an effective and timely manner without any impediments. It involves being able to identify and define the problem, generating alternative solutions, evaluating and selecting the best alternative, and implementing the selected solution. Obtaining a feedback and responding to it appropriately is an essential aspect of problem solving skills too. We face problems every time. However, some problems are more complex than others. But whether you face big problems or small ones, this skill helps solve it effectively. In this context study habit is prime concern of problem solving ability.

NEED AND SIGNIFICANCE
Every student has problems in their academic performance and every individual has problems too. For this reason, the ability to solve problems is of great importance to individuals and organizations. So each and every student concentrated on their problem one of the best method for solving the problem is to develop and habits especially in their study. Knowledge alone is not the key to solving problems but rather, complimenting it with systematic problem solving approaches makes the difference. This helps individuals and organizations overcome perilous challenges. People are trained to do the usual. They have acquired skills and knowledge in what they do. However, people can hardly solve problems when they are unexpected or unprecedented ones. If you become a regular problem solver at your workplace, you are easily noticed, recognized, and appreciated.

OBJECTIVES
- To find out the level of study habit among high achievers in higher secondary school students.
- To find out the level of problem solving ability among high achievers in higher secondary school students.
- To find out the association between level of study habits and problem solving ability among high achievers in higher secondary school students.

HYPOTHESES
- The level of study habit among high achievers in higher secondary school students will be moderate.
• The level of problem solving ability among high achievers in higher secondary school students will be moderate.
• There exists no significant association between the level of study habits and problem solving ability among higher secondary school students.

METHODOLOGY
To realise the objective of the study, the investigator used normative survey method and collected data from 248 high achievers from higher secondary school students in Kollam district. Study habit inventory and problem solving ability test were the tools used for the study. The statistical techniques used for the study is percentage analysis and $X^2$ test.

ANALYSIS AND INTERPRETATION
For identifying the level of Problem Solving Ability, Higher Secondary school students were classified into the High, Average and Low groups based on their Problem Solving Ability scores in the test. Assuming a normal distribution of Problem Solving Ability scores, the conventional procedure of using sigma distances was used for classifying sample. Considering the baseline of the normal curve representing the distribution extending from $-3\sigma$ to $+3\sigma$, i.e. over a range of $6\sigma$; Higher Secondary school students whose Problem Solving Ability scores fall between $M+\sigma$ and $M-\sigma$ were classified as ‘Average- Problem Solving Ability Group’ Higher Secondary school students whose scores were below M-\sigma were classified as ‘Low- Problem Solving Ability Group’, and Higher Secondary school students whose scores were above M+\sigma were classified as ‘High- Problem Solving Ability Group’ For the distribution of Problem Solving Ability scores, Mean was 35.74 and Standard Deviation was 4.98. Therefore, Higher Secondary school students whose Problem Solving Ability scores were 40 or more (rounded value of M+\sigma) were considered to possess ‘High Problem Solving Ability’, whose scores were less than 30 (rounded value of M-\sigma) were considered to possess ‘Low Problem Solving Ability’, and the remaining who come in between these scores were classified as of ‘Average Problem Solving Ability’.

The data and results are shown in Table 1.

Table 1 Number and Percentages of level of Problem Solving Ability of high Achievers at higher secondary level

<table>
<thead>
<tr>
<th>Level of Problem Solving Ability</th>
<th>Scores</th>
<th>Count</th>
<th>Column N %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Problem Solving (M+SD)</td>
<td>Above 40</td>
<td>15</td>
<td>6.0%</td>
</tr>
<tr>
<td>Average Problem Solving (M+SD)</td>
<td>30 to 40</td>
<td>206</td>
<td>83.1%</td>
</tr>
<tr>
<td>Low Problem Solving (M-SD)</td>
<td>Below 30</td>
<td>27</td>
<td>10.9%</td>
</tr>
</tbody>
</table>

Above table shows that the percentages of average Problem Solving Ability of higher secondary school students is 83.1%, 10.9% have low Problem Solving Ability and 6.0% have high problem solving ability among the high Achievers. So it can be concluded that most of the students have average level of problem solving ability and 10.9% have low level of process skills and around 6% of high achievers have high process skills it can be shown figure 2.
Figure 1 Pie diagram showing the level of Problem solving ability of high achievers among higher secondary school students

To find out the level of study habits of high achievers in higher secondary school students

For identifying the level of Study habits, Higher Secondary school students were classified into the High, Average and Low groups based on their Study habits scores in the test. Assuming a normal distribution of Study habits scores, the conventional procedure of using sigma distances was used for classifying sample. Considering the baseline of the normal curve representing the distribution extending from $-3\sigma$ to $+3\sigma$, i.e. over a range of $6\sigma$; Higher Secondary school students whose Study habits scores fall between $M+\sigma$ and $M-\sigma$ were classified as ‘Average Study habits Group’; Higher Secondary school students whose scores were below $M-\sigma$ were classified as ‘Low Study habits Group’, and Higher Secondary school students whose scores were above $M+\sigma$ were classified as ‘High Study habits Group’. For the distribution of Study habits scores, Mean was 113.70 and Standard Deviation was 3.5. Therefore, Higher Secondary school students whose Study habits scores were 117 or more (rounded value of $M+\sigma$) were considered to possess ‘High Study habits’, whose scores were less than 110 (rounded value of $M-\sigma$) were considered to possess ‘Low Study habits’, and the remaining who come in between theses scores were classified as of ‘Average Study habits’. The data and results are shown in Table 2.

Table 2 Number and Percentages of level of Study Habits of high Achievers at higher secondary level

<table>
<thead>
<tr>
<th>Level of Study Habits</th>
<th>Scores</th>
<th>Count</th>
<th>N %</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Study Habit (M+SD)</td>
<td>117</td>
<td>50</td>
<td>20.2%</td>
</tr>
<tr>
<td>Average Study Habit (M+SD) to (M-SD)</td>
<td>110 to 117</td>
<td>160</td>
<td>64.5%</td>
</tr>
<tr>
<td>Low Study Habit (M+SD)</td>
<td>110</td>
<td>38</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

Above table shows that the percentages of average Study Habits of higher secondary school students is 64.5%, 15.3% have low Study Habits and 20.3 % have high Study Habits among the high Achievers.so it can be concluded that most of the students have average level of study habits and 15.3% have low level of Study Habits and around 20.2% of high achievers have high Study Habits it can be shown in figure 1.
Figure 1 Pie diagram showing the level of study habits among higher secondary school students

To find out the association between the level of study habits and level of Problem Solving ability of high achievers $X^2$ test was used. The details are given in Table 3.

### Table 3 Data and results of the level of Study Habits and Problem Solving Ability among high achievers in higher secondary school students

<table>
<thead>
<tr>
<th>Level of Study Habits</th>
<th>Level of Problem Solving Ability</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Problem Solving</td>
<td></td>
</tr>
<tr>
<td>High Study Habit</td>
<td>Count 3</td>
<td>50</td>
</tr>
<tr>
<td>% s</td>
<td>6.0%</td>
<td></td>
</tr>
<tr>
<td>Average Study Habit</td>
<td>Count 9</td>
<td>160</td>
</tr>
<tr>
<td>%</td>
<td>5.6%</td>
<td></td>
</tr>
<tr>
<td>Low Study Habit</td>
<td>Count 3</td>
<td>38</td>
</tr>
<tr>
<td>%</td>
<td>7.9%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count 15</td>
<td>248</td>
</tr>
<tr>
<td>%</td>
<td>6.0%</td>
<td></td>
</tr>
</tbody>
</table>

$X^2 = 17.97, df=2; p = .001 \ (p<0.05)$

From Table 3 it is clear that 6% high study group have high problem solving ability, 92% have average problem solving ability and 2% have low problem solving ability. 5.6% of the average study habit group have high problem solving ability, 85% average study habit group have average level problem solving ability and 9.4% average study group have low problem solving ability. 7.9% low study habit group have high problem solving ability, 63.2% have average problem solving ability and 28.95% have low problem solving ability.

The obtained value is 17.97 is significant at 0.05 level ($P \leq 0.05$) of significance. hence there exists a significant association between study habits and problem solving ability among higher secondary school students. So study habit is dependent factor of problem solving ability.
FINDINGS OF THE STUDY

- Most of the students have average level of problem solving ability and 10.9% have low level of problem solving skill and around 6% of high achievers have high problem solving ability.
- Most of the students have average level of study habit, 15.3% have low level of Study Habit and around 20.2% of high achievers have high Study Habits.
- 6% of high study group have high problem solving ability, 92% have average problem solving ability and 2% have low problem solving ability.
- 5.6% of the average study habit group have high problem solving ability, 85% average study habit group have average level problem solving ability and 9.4% average study group have low problem solving ability.
- 7.9% low study habit group have high problem solving ability, 63.2% have average problem solving ability and 28.95% have low problem solving ability.
- The obtained value is 17.97 is significant at 0.05 level (P ≤ 0.05) of significance. Hence there exists a significant association between study habits and problem solving ability among higher secondary school students. So study habit is a dependent factor of problem solving ability.

REFERENCES


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