Study Habits and Academic Achievement: A Case Study of Secondary School Science Students in the Jalingo Metropolis, Taraba State, Nigeria

Ajai John T.1,*, Shiaki Bulus O.1, Bulus Tangsom C.2

1Department of Science Education, Faculty of Education, Taraba State University, Jalingo, Nigeria
2Department of Pure & Applied Sciences, Federal University, Wukari, Nigeria
*Corresponding author: ajai.j@tsuniversity.edu.ng

Received April 10, 2020; Revised May 12, 2020; Accepted May 19, 2020

Abstract The pattern of behaviour adopted by a student in his/her study is his/her study habits, which reveals his/her personality. Study habits serve as the vehicle of learning and may be seen as both means and ends to learning. This study, thus, investigated the study habits of secondary school science students in the Jalingo metropolis, Taraba State, Nigeria. The study which was guided by three research questions, employed a descriptive correlational research design. The sample of the study is made up of 199 students selected from 5 secondary schools through simple random sampling. Data for the study were generated through a questionnaire, tagged “Science Students’ Study Habit Questionnaire”. Descriptive statistics of frequency counts, mean, and product-moment coefficient of correlation were used for data analysis. The study revealed that the secondary school science students in the Jalingo metropolis have poor study habits and weak academic performance. The study also found a strong positive, high and significant correlation between study habits and academic performance of secondary school science students. It is thus recommended that teachers, parents, guardians and the school management should collaboratively guide students on how to develop good study habits.

Keywords: study habits, science, academic performance


1. Introduction

Investment in education is enormous, especially these days when the cost of education is on the rise, and it is usually painful whenever students fail or drop out of school. The worth of the educational system is dependent on the learning outcomes of its learners, usually measured through the academic achievement of the learners. The differing academic achievement level of students has raised several questions among educational researchers. Some of these questions include why does one student perform better than another. [1] opined that studies in the field of cognitive psychology have shown that learning and study strategies affect academic performance.

The goals of education in Nigeria, as enshrined the National Policy on Education [2], stir the government of the Federation to commit substantial resources to the secondary school education of its citizenry. Despite this commitment, the academic achievement of students, as evidenced by their performances both in internal and public examinations, is seemingly getting poorer and poorer [3]. This state of affairs calls for immediate action(s) to remedy the situation so that the nations’ scarce human and material resources used on education can be justified and not wasted. Part of the remediation is an investigation into the salient reasons for poor performance and taking relevant actions to prevent further occurrence. One of these remedial investigations includes a survey on students’ study habits.

Study habit, according to [3], is broad as it combines nearly all other sub-topics under it, such as study attitude, study method, and study skill. Study attitude has to do with a mental and natural state of readiness, organized through experience which directs influence upon a learner’s response to situations of learning with which it is related. The study method refers to the process by which study tasks (assignment, homework, personally written notes, and texts) are completed. It has to do with either a student chooses to work alone or in the company of his classmates. Study skill deals with discernment in knowing when to study and when not to study, hours to put in for a useful study, and, consequently, an excellent academic performance.

Study habits are the behaviour of an individual related to studies [4]. Through the process of learning, the learner’s habitual ways of exercising and practicing his
abilities for learning are considered as his study habits. The pattern of behaviour adopted by students in their study, according to [4], is their study habits. Study habits reveal a student’s personality. The learner’s learning character is shown by his study habits. Study habits serve as the vehicle of learning and may be seen as both means and ends to learning. Study habits play a significant role in the life of students. The success or failure of each student depends upon his study habits. Of course, studying is an art, and as such, it requires practice. Some students study more, but they fail to achieve more. Others study less but achieve more. The success of each student depends upon ability. Citing Menzel, [5] states that many students fail not because they lack ability, but because they do not have adequate study skills. Study habit is the tendency of a student to learn in a systematic and efficient way when opportunity is given.

Success in any form of academic activity is a function of study, interpretation, and application, and that study should have a purpose. It, therefore, depends on the individual to decide why he or she wants to study, either to gain new ideas or to find out the relationship between two different things. What one learns as a result of the study depends on the degree to which one succeeds in achieving that aim or purpose [6].

The degree of learning depends on the amount of time the child is actively engaged in learning [5]. The time spent on studying helps students to retain the materials learned, which will eventually boost the students’ performance outcomes during tests or examinations. Studies in the field of cognitive psychology, as reported by [7] that have shown that learning and study strategies improve academic performance.

Studies abound on the causative and predictive nature of factors of study habits on students’ academic achievement. For example, [8] examined the relationship between the study habits and the academic performance of medical sciences students. The study found out that study habits score can predict 6.8% of the changes in academic performance ($R^2 = 0.068$). This result showed that the study habits of the students are at a relatively good or average level. Similarly, the study of [9] in Abuja, Nigeria revealed a significant relationship between study habits and students’ academic performance. The study of [10] also found a significant relationship between academic achievement in mathematics and study habits. In a related study [4] found a significant association between study habits and academic achievement of students. Similarly, [11] found a positive relationship between secondary school students’ study habits and academic achievement. A study by [12] also found a significant relationship between academic achievement and study habits. The study [7] also found that study habits have a significant effect on academic achievements.

It evident from various studies, as in the case of the few mentioned above that student who exhibits good study habits are likely to excel than those with poor study habits. It will not be out of place to say that study habits play a very significant and pivotal role in the life of students. It is because of this that [13] posit that in a classroom of the same situation (i.e., same teacher, same subject, same teaching system, same administration, same enrolment criteria, same class) students perform differently. While some perform well, others do not, which implies variation in learning strategies. Thus, study habit is one of the student-related variables that influence their academic performance.

The academic performance of science students in secondary schools is seemingly poor. Poor academic performance can be traced to several factors. Debates among educationists tend to blame students’ poor performance on the teachers’ teaching methodology, poor moral support, overcrowded classroom, lack of sense of duty and commitment on the part of the teachers and inadequate funding by the government at various level (to provide quality textbooks and other facilities). However, these might not be the only reasons why the students perform poorly during examinations since some of the students under this same condition are doing well academically in performance. It seems that students perform poorly in the secondary science subjects - biology, chemistry, mathematics, and physics. This is probably because of the notion they have that these subjects are just so difficult and should not be studied. So, they tend to laze around in studying the subjects, which may be the reason they end up cheating during examinations and come out with not poor grades.

A study habit is a vital factor in any learning task. However, it seems that the educational sector in Nigeria pays little attention to understanding this factor. It seems that the Nigerian society often reflects on teacher-centred factors that affect academic performance, thereby neglecting the student-centred factor - study habit. It is within the context of the above observations that this study examined the study habits and the academic performance of science students in secondary schools in Jalingo metropolis of Taraba State.

2. Research Question

The study is guided by the following research questions:

1. What is the study habit of secondary school science students in the Jalingo metropolis?
2. What is the academic performance of secondary school science students in the Jalingo metropolis?
3. What is the nature of the relationship between study habits and academic performance of secondary school science students in Jalingo metropolis?

3. Methodology

The study employed a descriptive correlational research design. The sample is made up of 199 secondary school science students selected from 5 schools in the Jalingo metropolis of Taraba State, Nigeria. The selection of research participants was through a random sampling technique. Data for the study were generated through Science Students Study Habit Questionnaire (SSSSHAQ). The SSSHAQ is made up of three sections (A, B, and C). Section A is for demographic data of the respondents. In contrast, Section B is a four-point rating scale that measured study habits in the dimensions of the study environment, time management skills, and habit of
concentration. Section C is for the academic performance of the students’ end of year examination results of 2016/2017 academic session in the science subjects (i.e., Physics, Mathematics, Chemistry, and Biology). Face, content, and construct validity of the SSSHAQ were done by three experts in the fields of mathematics education, science education, and educational measurement and evaluation. The validation was followed by item analysis, where a reliability index of 0.92 was obtained through the Cronbach alpha coefficient technique. Descriptive statistics of frequency counts, mean, and product-moment coefficient of correlation were used for data analysis.

4. Results and Discussion

4.1. Research Question One

What is the study habit of secondary school science students in the Jalingo metropolis?

Table 1. Study habit scores of secondary school science students in the Jalingo metropolis

<table>
<thead>
<tr>
<th>Class interval</th>
<th>Mid-point</th>
<th>No. of students</th>
<th>Percent</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 – 30</td>
<td>22.5</td>
<td>36</td>
<td>18.10%</td>
<td>Poor</td>
</tr>
<tr>
<td>31 – 40</td>
<td>35.50</td>
<td>80</td>
<td>40.20%</td>
<td>Fair</td>
</tr>
<tr>
<td>41 – 50</td>
<td>45.50</td>
<td>77</td>
<td>38.70%</td>
<td>Average</td>
</tr>
<tr>
<td>51 – 60</td>
<td>55.50</td>
<td>6</td>
<td>3.00%</td>
<td>Good</td>
</tr>
<tr>
<td>Mean = 45.60</td>
<td>Std. dev= 8.29</td>
<td>199</td>
<td>100%</td>
<td>Total</td>
</tr>
</tbody>
</table>

Table 1 shows that 36 students representing 18.10% have poor study habits, while 80 students representing 40.20% have fair study habits. 77 students which represents 38.70% are in the category of average study habits and 6 students, that is 3.00% have good study habits. In essence, majority of the secondary school science students (58.0%) have study habits below average level. Furthermore, the mean study habits score is 15.26, and this falls within the range of poor study habit. Thus, the study habits of science students in the Jalingo metropolis is poor.

4.2. Research Question Two

What is the academic performance of secondary school science students in the Jalingo metropolis?

Table 2. Academic performance of secondary school science students in the Jalingo metropolis

<table>
<thead>
<tr>
<th>Class interval</th>
<th>Mid-point</th>
<th>No. of students</th>
<th>Percent</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 25</td>
<td>12.50</td>
<td>32</td>
<td>16.10%</td>
<td>Poor</td>
</tr>
<tr>
<td>26 – 50</td>
<td>38.00</td>
<td>88</td>
<td>44.20%</td>
<td>Fair</td>
</tr>
<tr>
<td>51 – 75</td>
<td>63.00</td>
<td>69</td>
<td>34.70%</td>
<td>Average</td>
</tr>
<tr>
<td>76 – 100</td>
<td>88.00</td>
<td>10</td>
<td>5.00%</td>
<td>Good</td>
</tr>
<tr>
<td>Mean = 45.08</td>
<td>Std. dev= 17.55</td>
<td>199</td>
<td>100%</td>
<td>Total</td>
</tr>
</tbody>
</table>

Table 2 shows that 32 students representing 16.10% have poor academic performance, whereas 88 students, which is 44.20% have fair academic performance. 69 students (34.70%) have average academic performance and just 10 (5.00%) have good academic performance. From the table, 60.30% of the students performed below average. Furthermore, results Table 2 show that the average scores of the students on academic performance is 45.08 which falls within the range of fair academic performance which is below average score (50.00). Thus, secondary school science students in the Jalingo metropolis are just fairly average students in terms of academic performance.

4.3. Research Question Three

What is the nature of relationship between study habits and academic performance of secondary school science students in Jalingo metropolis?

Table 3. Relationship between study habits and academic performance of secondary school science students in Jalingo metropolis

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>mean</th>
<th>Std. dev</th>
<th>r</th>
<th>sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study habit</td>
<td>199</td>
<td>15.60</td>
<td>8.29</td>
<td>0.98</td>
<td>0.013</td>
</tr>
<tr>
<td>Academic performance</td>
<td>199</td>
<td>45.80</td>
<td>17.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that the coefficient of correlation between study habit and academic performance is 0.98. The correlation coefficient is positive and suggest a very high relationship between study habit and academic performance. Results from Table 3 further revealed that the relationship between study habit and academic performance of secondary school science students in Jalingo metropolis is statistically significant at .05 level of significance. This is shown by the calculated p-value of 0.013 which is less than significance level (.05).

4.4. Discussion of Findings

Study habit is one of the factors that influence academic achievement, and this is because students who have good study habits have more active learning and are more successful in school subjects. They also tend to have better memorizing and remembering abilities. The finding of this study indicates that the majority of the secondary school science students in the Jalingo metropolis have poor study habits. The mean of the study habits scores of the students was 15.60, and based on the results, the majority of the students (58.0%) fall below average study habits. According to the importance of study habits in the learning process, this situation is not ideal. The poor study habit is indicative that the students have not received the necessary instructions to improve their study habits. Higher study habit scores indicate more effective approaches to study habits, while lower scores indicate that students are performing poorly.

The study also reveals that most secondary school science students in the Jalingo metropolis have academic performance that is fair and below average, which means that the majority of the students just struggle to exceed the fail score but do not exceed the average score (50%) in their various science subjects and consequently, their overall term’s average. This is an indication that they are
just fairly average students in terms of academic performance. The weak academic performance is a confirmation of their poor study habit. The study habit of these students is not sufficient for academic excellence. This goes to agree with the opinion of Marc, as cited in [9], that good study habits will contribute to a successful academic future as well as lead to good grades. The concomitance of poor study habits and weak academic performance of the secondary school science students in the Jalingo metropolis seems to agree with [14], who found that most student underachieves because they pay less time for their educational task and that learners achieve more in terms of academic performance when they become more proficient in reading and reasoning (studying).

In the area of the relationship between study habits and academic performance, the study established a very high positive correlation. The correlation is further affirmed to be statistically significant. This finding in this direction is consistent with earlier studies, such as [9,10,11,12], and [4] that found a positive relationship between secondary school students’ study habits and academic achievement. This goes to show that many students fail not because they lack ability but because they do not have adequate study skills, and that students who encounter the difficulty of scientific contents do not have good study habits.

5. Conclusion

Secondary school science in the Jalingo metropolis have poor study habits, hence their weak academic performance. There are many external factors that may affect students’ academic performance but, study habit is an internal factor, within the student and significant related to academic performance. This study shows that academic performance is a function of study habits; thus, poor study habits invariably lead to poor performance among secondary school science students.

6. Recommendations

Based on the findings of this study, it is recommended that teachers, parents, guardians, and the school management should collaboratively guide students on how to develop good study habits, thereby enhancing their academic success.

References


