# STUDY HABIT AND ACADEMIC PERFORMANCE OF INTEGRATED SCIENCE STUDENT

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## ABSTRACT

*This study was to assess the study habits and academic performance of integrated science students. The term "integrated science" is often used as a synonym for interdisciplinary and unified science, which may be applied generally to any curriculum effort in which two or more previously separated science subjects are combined. Study habits imply devoting a specific, scheduled, and uninterrupted period of time to the task of learning. However, integrated science treats scientific concepts in a manner free of the restrictions imposed by the arbitrary subject boundaries of the separate sciences. It has a dynamic process approach to the teaching and learning of science. Academic performance has been described as the scholastic standing of a student at a given moment. Therefore, study habits are said to be improving because of the advent and wide use of the Internet, hypertext, and multimedia resources, which greatly affect study habits. The study concluded that integrated science course may be characterised by a focus on processes of scientific inquiry or a wish to cater to the interests of pupils. This science course is an important aspect of the teaching and learning process for individual students in the school system. Students who lack effective and efficient means of studying integrated science would be building on a shaky foundation and consequently have a weak foundation. One of the recommendations made was that teachers should use appropriate teaching strategies to ensure effective teaching and learning of integrated science subjects for the promotion of good study skills in male and female students.*

**KEYWORDS: Study Habit, Academic Performance, Integrated Science and Students**

## Introduction

The quality of a nation depends upon the quality of its citizens. The quality of citizens depends on the quality of their education. The quality of education, besides other factors, depends upon the study habits and study attitude of the learners. Habits are acquired, not inborn (Jaskiran 2013).

The term "integrated science" is often used as a synonym for interdisciplinary and unified science, and may be applied generally to any curriculum effort in which two or more previously separated science subjects are combined. The effort may be characterised as a collaboration among, a blending with, or a fusion of a number of "subjects" traditionally taught separately (Wei 2009). Thus, the meaning of integration in various

types of integrated science is different. An integrated science course may be characterised by a focus on processes of scientific inquiry, or a wish to cater to the interests of pupils, or it may be a course structured around topics, themes, or problems that require a multidisciplinary approach. There are four groups of meanings of integration in science: (1) as the unity of all knowledge, (2) as the conceptual unity of the sciences, (3) as a unified process of scientific enquiry, and (4) as interdisciplinary (Wei 2009).

Science has been at the centre stage of every field of life, including education. It is important for national development and educational attainment. Science is an organised body of knowledge that involves concepts, laws, theories, and generalizations. Urevbu (2001) defines science as the study of nature and natural phenomena in order to discover their principles and laws. The academic achievement of an individual student in the school system is an important aspect of the teaching and learning process. Science started at the beginning of human life on earth, and its importance is unique. Science stimulates and excites students' curiosity about phenomena and events in the world around them. It also satisfies this curiosity with knowledge because science links direct practical experience with ideas and engages learners at many levels (Banks and McCormick, 2010). Science has also helped students engage in and deeply discuss it by examining its impact on everyday life.

Study habits imply devoting a specific, scheduled, and uninterrupted period of time to the task of learning. Without it, one does not grow and becomes self-limiting in life. Study habits tell a person how much he will learn, how far he wants to go, and how much he wants to earn. All of these things could be decided with the help of one's study habits throughout life. According to Palani (2012), reading habits are an essential and important aspect of creating an alliterate society in this world. It shapes the personalities of individuals and helps them develop proper thinking methods.

Many studies have been carried out by researchers like Adeyemo (2005) and Gbore (2006) on effective study habits. They argue that study habits have a strong relationship with the academic performance of students. A student who cultivates a certain study habit will perform differently from a student who has another set of study habits. Students who lack effective and efficient study methods are thought to be building on shaky ground and, as a result, have a weak foundation. There may be a number of reasons, like different levels of intelligence, a lack of good infrastructural facilities, a lack of good libraries, and so on. But one of the reasons is that students fail to make a good effort to learn what their teachers taught them in school and also do not study at home because they fail to recognise the importance of study habits to their academic achievement. Abid (2006) stated that the quality of a nation depends upon the quality of its citizens, while the quality of a citizen depends on the quality of its education, which in turn depends on the study habits of the students. The quality of education is reflected through academic achievements, which is a function of students' study habits.

It is sad to hear that many students are performing below expectations. Years after year, students are identified as having very poor academic performance in integrated science, and this has called for concern globally. It is quite obvious that the poor academic performance of the students would be averted if good study habits were practised by them. Many experts have attested to the realistic power of study habits, but many seem to not know the impact of such habits. This lack of knowledge of the realistic power of study habits has helped worsen the performance of students both in continuous assessments and examinations. Many people, even though they have adequate knowledge of the roles of study habits, have not come up with the extent to which studies have affected students' performance. Hence,

this study was conducted to assess the extent of study habit influence on students' performance in integrated science.

The study will be of immense benefit to the students as it will enlighten them to have a good study habit because it is believed that if students' study habits are improved and made consistent, academic performance will definitely improve. The study will also help the teachers and school counsellors select appropriate techniques for helping students during teaching and learning procedures.

**Cognitive Learning Theory by Jean Piaget (1977)**

This theory was propounded by Jean Piaget, a Swiss psychologist and genetic epistemologist, in 1977. In this theory of cognitive learning, Jean Piaget proposes that the basis of all learning is the child's own activity as the child interacts with the physical and social environment. To Piaget, knowledge does not and cannot have the same purpose as the representation of an independent reality but instead has an adaptive function. Piaget recognised that human beings are born as active, exploratory, information-processing organisms and actively construct their own ways of thinking about things based on their current level of maturation and actual experiences with objects, people, and ideas. Piaget believed that the child's mental activity is organised into a structure called a schema, or pattern of behavior, which develops as the child passes through stages of mental development, through the sensory motor, preoperational concrete, and formal operational stages (from infancy to maturation). Thus, as children grow and develop, they go through stages in which they accept ideas that they may later discard as wrong. Understanding is therefore built up step by step through active participation and involvement. Piaget used the terms "assimilation," "accommodation and "reorganization" to explain his views about the learning processes in children.

The child assimilates new objects by making accommodations that build new cognitive structures. To Piaget, true learning is not something handed down by the teacher, but something that comes from the child through the process of spontaneous invention and discovery.

Jean Piaget's theory is relevant to this study in that it supports the teaching and learning process where the students take part in active interaction with the physical and social environment, such as field trips. Field trips encourage students to become active constructors of their own knowledge and construct meaningful knowledge at their own pace through personal experience. This will in turn aid understanding and retention of information learnt, and will reflect positively on their academic achievements.

**Concept of Study Habits**

Study habits have been defined in the Dictionary of Education as the students' ways of studying; they can be effective or ineffective, etc. To elaborate Study habits are the methods of learning or acknowledgment used by a student. According to Ortinero (2000), the term "study habits" refers to the student's way of studying, whether systematic, efficient, inefficient, etc. Good study habits are perceived to be the determinants of academic performance. That is why efforts are made to develop and improve the study habits of students. For several reasons, university students have to face the emotional effects. They have poor study habits and show poor academic motivation. A great deal of evidence is present to show the positive correlation between study habits and academic achievement. And the main purpose of study guidance is to enable students to see a clear picture of the information regarding every aspect of their study system and study problems. Ansari (1980)

and Ghulam (2013) found that study habits and study behaviour are both significant variables which determine the academic performance of students.

Study habits are the connection between learning readiness and an activity in the form of a process. The majority of the time, it is for recognition based on a specific goal and mandatory exercises. According to Sylvan Learning (2019), study habits are the adopted way and manner in which a student plans his private readings after classroom learning so as to master the subject. On the other hand, Golatkar (2020) sees good study habits as a good asset to learners because they (habits) assist students to attain mastery in areas of specialisation and consequent excellent performance, while the opposite constitutes constraints to learning and performance and leads to failure. The main purpose of instruction is to enable students to learn, whereas the teacher‘s task is to facilitate the learning process and help students develop study habits and the right attitude towards learning. For study habits to be considered effective, the following fundamental components and more should be evidently present: drawing up and abiding by a daily study schedule, full involvement in teaching and learning processes, inculcating good reading habits, promptly doing and turning in class work and assignments, jotting down points while the teacher is teaching and during private studies. Good study habits are essential ingredients for excellent academic performance for every student.

**Classification of Study Habit**

There are several key study habits that are crucial to all students’ success. One such thing is studying in a good environment with a little bit of background music, such as classical with no lyrics, is fine and a good studying location. Whether studying in the rain or shine, day or night, what is most important is to be consistent and stay on schedule. Generally, study habits can be classified into two categories: good study habits and bad study habits.

Good study habits occur as a result of practise and knowing what methods are most effective for you as a student. When studying, stay away from distractions such as the computer. Instead of procrastinating, work on a long-term assignment daily. Instead of studying the night before, study a little each night. Review what you learned in class every day when you get home. Also, a good tip is to review what you did in class the previous day at the beginning of class when you have a few minutes before the teacher starts talking. By learning the ways that you learn best, you will be successful in your studies. Katelyn (2013), therefore, identifies fourteen positive or good study habits that students can employ in order to improve their academic performance. They are: attend all classes; review your notes daily; read material prior to it being covered in class; study daily; have at least one conference with the professor; develop and learn a word list for the course; read materials to improve your background in the course (other than text); attend help sessions; attend learning resource labs when available; develop a list of possible questions; ask questions in class; study an old exam (when available); avoid a last-minute cram session; and sleep at least 8 hours the night before exams commence.

In the same vein, Harper and Row (2009), highlight good study habits as thus:

1. Studying every day
2. Creating a quiet place at home or anywhere to study
3. Turning off the phone, TV and other devices that may disturb you when studying

4. Listening to soft music or white noise
5. Studying in a way that suits your learning style 6. Taking regular breaks
6. Studying early (do not wait for last minutes)
7. Studying the hardest things first, spending more time on topics you find difficult
8. Asking for help if one is struggling with his studies, taking notes as one studies as well as organizing notes in a notebook or folder.

On the other hand, bad study habits according to John (2010) are negative or non-productive study habits that are undesirable and counter-productive to students' academic performance. When developed and utilised by students at all levels, they tend to hamper the academic progress and performance of the users. Due to the peculiarity and uniqueness of each individual student, what may be considered bad study habits for student "A" may seem to be very productive and efficient for student "B." However, bad study habits generally range from procrastination, truancy, not taking note, selective reading, studying while watching television or what is generally regarded as distractive study etc. Nikki (2013) identifies bad reading habits to include studying with friends, listening to loud music, studying in uncomfortable conditions, cramming, etc.

**Factors that Affect Study Habit**

There are several factors that tend to affect students' study habits. Anything can affect students' study habits. Their ability to study and concentrate can be increased by finding a quiet place where they can concentrate. Distractions such as phones, chat rooms, TM and text messaging, TV, video games, music, and computers can all decrease students' ability to learn. Whatever is going on around and within a student's own mind is going to affect his study habits. According to SheeRa (2012), study habits can be affected by factors such as: age of a student; home environment; studying materials; television and computer games; social networking (Facebook); students' determination and aspiration; financial and economic status of parents; surroundings such as entertainment centres, games centers, etc.; the rules of the schools; the teaching style of teachers; the leisure of the students; some activities in schools; and the availability of a school library. Accordingly, SheeRa (2012) further noted several other factors as: nature of friends and peer group, assignments and homework restrictions, students' parents' educational background, parents not interested and supportive in helping their children study, household chores, family problems, procrastination and poor time management, students' comfort level, noise level, and lighting level, and the availability of items that might be necessary to study or to enhance concentration.

**Students' Performance in Integrated Science**

Integrated Science is therefore a core subject taught at the JSS level; the subject is believed to be essential in laying a solid foundation for the teaching of subjects like Economics, Geography, and History at the senior secondary school level and courses such as Anthropology, Philosophy, Political Science, Psychology, and Sociology at higher institutions, while the latter provides foundations for the teaching of Biology, Chemistry, and physics, which are basic science subjects taught at the secondary school level in an integrated form. Integrated Science treats scientific concepts in a manner free of the restrictions imposed by the arbitrary subject boundaries of the separate sciences. It has a dynamic process approach to the teaching and learning of science. The term "academic performance" has been

described as the scholastic standing of a student at a given moment. It refers to how an individual is able to demonstrate his or her intellectual abilities. A study conducted by Edokpayi and Suleiman (2011) revealed that the academic achievement of students in integrated science in the Junior Secondary School Certificate (JSC) examinations among the selected secondary schools in Zaria metropolis was a poor predictor of later achievement in chemistry in the Senior Secondary School Certificate (SCE) examination. That is, science teachers faced some difficulties in dealing with the content of the Integrated Science Syllabus due to a lack of teaching resources, low teacher competency, and a lack of teaching experience.

**Study Habit and Academic Performance**

According to Pascual (2001), study skills/habits or study strategies are approaches applied to learning. They are generally critical to success in school, are considered essential for acquiring good grades, and are useful for learning throughout one's life. There are an array of study skills, which may be used to tackle the process of organising and taking in new information, retaining information, or dealing with assessments. They include mnemonics, which aid the retention of lists of information, effective reading and concentration techniques, as well as efficient note-taking. Effective study habits are often up to the students and their support, but there is evidence that they are increasingly taught at secondary schools and university levels. Researchers believe that the development of study habits helps a person become successful and productive.

Study habits are said to be improving because of the advent and wide use of the Internet, hypertext, and multimedia resources, which greatly affect study habits (Liu, 2005). Karin and Hassan (2006) also noted the exponential growth of digital information, which changes the way students perceive studying and the printed materials that are to be used in facilitating study. Liu (2005) and Ramirez (2003) report that students print material from the Internet in order to study and read later on. Igun (2005) also found that Nigerian students study from materials downloaded from the Internet. Reading is an attempt to absorb the thoughts of the author and know what the author is conveying (Leedy, 1956). Studying is the interpretation of reading materials. Study habits and skills are especially important for college students, who require time management, note-taking, internet skills, distraction elimination, and a high level of study priority. Fielden (2004) states that good habits help students with critical reflection in skills outcomes such as selecting, analyzing, criticizing, and synthesizing. Nneji (2002) states that study habits are learning tendencies that enable students to work.

**Conclusion**

An integrated science course may be characterised by a focus on processes of scientific inquiry or a wish to cater to the interests of pupils. This science course is an important aspect of the teaching and learning process for individual students in the school system. Students who lack effective and efficient means of studying integrated science would be building on a shaky foundation and consequently have a weak foundation. And a student who cultivates a certain study habit will perform differently from a student who has another set of study habits as well. Many students fail, not because they lack ability, but because they do not have adequate study skills. The findings of this study have shown that the students' study habits in the sampled schools were generally good. The result implies that there is a significant influence of students' study habits on their performance in integrated science. Integrated Science is therefore a core subject taught at the JSS level; the subject is believed to be essential in laying a solid foundation for the teaching of subjects like

Economics, Geography, and History at the senior secondary school level and courses such as Anthropology, Philosophy, Political Science, Psychology, and Sociology at higher institutions, while the latter provides foundations for the teaching of Biology, Chemistry, and physics, which are basic science subjects taught at the secondary school level in an integrated form. With respect to gender performance in integrated science, the findings of the study show that in most parts of the country, male students tend to perform better compared to female students even in related science courses such as in mathematically related or technology-based subjects.

**Recommendations**

Based on the findings and conclusion of the study, the following recommendations were made:

1. For national development and educational attainment, it is important to provide good and well-equipped laboratories to secondary schools for science courses in order to acquire good study habits and improve students' performance in integrated science.

2. Teachers should use appropriate teaching strategies to ensure effective teaching and learning of integrated science subjects for the promotion of good study skills in male and female students.

3. Parents should encourage their children to study at home, as well as provide basic instructional materials, such as textbooks, and some simple basic science apparatus in order to cultivate science knowledge in them.

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