



# A STUDY OF DIFFERENCES IN LEARNING STYLES OF SENIOR SECONDARY SCHOOL STUDENTS IN NIGERIA

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## ABSTRACT

*This is a descriptive research work aimed at identifying different learning styles of senior secondary school students. A total of 200 respondents were sampled for the study, out of which 100 were males and 100 were females randomly selected from five different schools. In each of the schools, total of 40 students were sampled comprising equal number of males and females respectively. The results of the study found that students are having different styles of learning*

**Key words:** *learning styles, secondary school students.*

## 1. INTRODUCTION

Education is the process of imparting knowledge, attitudes, skills, and judgment. Education has been defined in so many ways by different writers.

Education could be seen in other perspectives as a type of learning within which the information, skills, and habits of teaching thoughts, knowledge, and ideas of individuals is transferred from one generation to the other through technical means. Thus, education is the key in individual development and overall wellbeing. It paves the way to become useful citizen to the society who will be able to contribute in a meaningful way. The education facilitates the relationships of the individual in day to day life. The learning styles adopted by students in Nigeria institution has been playing a very significant response toward their academic motivation and development in all perspectives of their learning by having means to read, write and comprehend all their activities been carried out in their respective institution of learning, therefore, the adaptation of learning styles is very important.

Kolb<sup>[1]</sup> describes education as “the process whereby knowledge is created through the transformation of experience”.

Kolb further stated that knowledge is the means of knowledge and growth and it is constructed on these proposals:



i) Knowledge refers to repeated learning. Knowledge is best guided by some means which presents the learners' principles and thoughts about a subject for them to be put through by testing, and integrating them with better organized thoughts.

ii) Academic achievement appears from the individual performance between an individual and his surroundings. According to Piaget's, teaching takes place through matching of the interactive means of understanding new practices into new and present ideas by accepting the prevailing ideas to form new information. Knowledge is the procedure of generating information.

The term learning styles means variety of challenging and contesting concepts that is seen as being responsible for variations in person's knowledge. These concepts suggest that individuals can be categorized according to their 'style' of knowledge, although different theories may represent different opinions on how the styles should be distinct and categorized. A collective idea is that persons differ in how they taught<sup>[2],[3],[4]</sup>, explain learners study in different techniques e.g. sighting, listening, imitating performing, thinking rationally, remembering, picturing, sketching methods and structure of representations. Learning style is viewed by Kolb<sup>[1]</sup> as "the methods we prefer to take up and add in new information". Many persons have diverse methods of acquiring knowledge, though, those ways were neither worthy or debauched". Kolb has recommended four dissimilar learning styles: Accommodator, Divergers, Assimilator and Convergents.

1. Active learner refers to people that favor real experience and lively testing on different categories involved in the learning process (an individual that prefer to see material from emotion and practice it by performance). Proper learning conditions entail individual with the help of learning style wishing to collaborate with the rest to get tasks completed. Established objectives and practical assignment to check dissimilar methods in the implementation of plan according to Kolb<sup>[1]</sup>. They answer the "what if" of education.

2. Diverger means individual that favors real facing and thoughtful opinion about knowledge extent (person that favors to see evidence from emotion and study about the dispensation of knowledge by study). Official learning situations refers to persons with the Divergent style like better to function in individuals, listen with an unbiased mind and getting customized advice. They answer the "why" of education.

3. Converger defines an individual that favors theoretical formulations and Dynamic Research (individual that will like to understand information by rationality and responsibility). In prescribed learning situation, person with this method favor to test with new thoughts, simulation, workroom tasks, and realistic presentations. They answer the "how" of education.

4. Active learners denotes to an individual that favors theoretical formulations and deep thoughts of learning scope (individual that wishes to absorb through rational and seeing/hearing). In proper learning conditions, persons with this method desire understandings, talks, discovering logical models, and devoting time to reason things through. They answer the "what" of education. Studies have examined persons' learning styles. Loo<sup>[5]</sup>, precisely see as a pointer of learning style, students of different sexes are conscious of diverse learning styles. Learning Style Index tool (LSI), Version 3 of learning style index developed by Kolb is recognized as good instrument in determining an individual's comprehension of new ideas<sup>[1]</sup>.



Learning styles was explained as a regular means of operation which reveals the fundamental reasons of knowledge conduct<sup>[9]</sup>. These are *visual* learning styles, auditory learning styles and kinesthetic learning styles. Previous researches indicated that learners, knowledge presentation could be better when proper instructional method is considered in evolving instructional process<sup>[6]</sup>.

Consensus of opinion have indicated that the way in which people select to method a learning situation effect on success of instructional outcome. Where learning style has been emphasizing on a massive amount of study, by practiced based investigation in the region. There is a diversity of meanings, speculative suggestions, replicas, explanations and actions of the concept. This is regarded as natural result of wide experimental study and is likely to continue developing as idea which shows valuable in getting familiar with such vital and usual endeavor in passing instruction. Utilizing awareness in learning style in any learning environment encourages more operational knowledge and hence better academic attainment. We can never pretend any longer that if there are no satisfactory response to queries people might not be serious in creating conducive environment for learning.

The issue is how can the learner's progress be operated and succeed? There is a solid instinctive appeal with regard to concepts which teachers, program inventors and educational psychologists should commit more emphasis to the learning styles of students with the view to identify, motivate to reproduce by planning instructional and educational support upon them. By so doing, students will be encouraged to study and able to identify their challenges. Conversely, teachers can answer to individual's stronghold and difficulties, then, the degree of withholding and attainment in prescribed plans will and provide the required skill in learning.

Sternberg<sup>[7]</sup>, suggested that techniques are part of socialized aspects proposing that they can be to a greater extent. Hence, students' information about learning techniques favorite will assist maximally in improving their cognitive aptitudes and learning talents in deriving the highest benefits in giving instruction. In conclusion, Sternberg<sup>[7]</sup> held that better consciousness of learning favorites and techniques assist tutors to be more adaptive in their approach and make use of comprehensive variety of classroom approaches. Learning objective is not meant to compare instructional style to student likings, but rather to assist students enhance their abilities and aptitudes in acquiring good knowledge in both favored and less favored methods of getting education (meta-learning), therefore, evolving active and enduring style, students who can observe their learning approaches and appraise their results or success.

Learning is a necessary notion of learning style. Jonassen and Grabowski<sup>[8]</sup>, explain knowledge acquisition as a process of transformation from the previous practices. They further differentiated between learning as a creation which clarifies the final outcome of the previous practices. Learning is a procedure that stresses on the occurrences while performing an activity with the view to get a desired outcome. Learning also acts as a task which stresses certain grave features of knowledge, such as incentive, preservation, and transmission which makes social modifications in human learning conceivable. The assertion made above clearly indicates the characteristics of intellectual, social, learning technique termed as the features of mental, emotional, and psychosocial conducts which function as moderately steady pointers to how individuals relate, see, and react to educational surroundings<sup>[9]</sup>.



Hartley<sup>[10]</sup> opined that learning technique as a reliable means of reaction by learners in applying motivations in the framework of learning. A learning technique is the favored method, by which learners want to control and address difficulties, reasons or gain in instructional condition<sup>[10]</sup>.

Additionally, Idea of learning techniques applied in order to define individual variations in the manner persons acquires knowledge. Everyone has a distinctive method of engage and approaches practical application of activities and acquiring knowledge. Several studies in various fields adopted the application of learning style concept which has variety of methods to classify learning styles. No solely recognized technique presently exists, but instead numerous possible measures and groupings are in use. Most of these measures and groupings look alike and put emphasis on desires within their surroundings, practical processes, character and disposition, and/or intellectual techniques. Nonexistence of a theoretical background for learning techniques theory and assessment has become public and dominant disapproved features in the area.

It is most probable that intellectual technique at least could be viewed as an important element of learning technique. Hartley<sup>[10]</sup> offers these explanations: intellectual styles are the methods in which diverse entities naturally confront different intellectual assignments.

Learning style is also as a regular mode of performance that reveals the fundamental reasons of learning behavior Keefe<sup>[9]</sup>. There are often so many learning styles such visual learning styles, auditory learning styles and kinesthetic learning styles. Learning style is a feature that indicates how a learner learns gets knowledge and how he wants it. It is an instructional means which will inform the cognitive context and content of acquiring knowledge. Previous students' knowledge sighted that student learning performance could have been better if good learning style scope is keen on thought when rising any instructional procedure<sup>[6]</sup>.

Present is universal receipt so as to the way in which persons decide total ending with knowledge circumstances have a crash on presentation and attainment of knowledge outcome. Possibly knowledge method has been the center of such a huge figure of researches and practitioner-based study region, present lived diversity of definition, hypothetical proposition, model, interpretation and events of the build. To a number of certain levels, it can be careful a usual result of wide experiential studies and is to be predictable by means of continuity in rising concepts which prove helpful in ahead understanding of such an important and current effort in knowledge.

By means of conscious learning style within the educational background it promotes additional and effective learning and hence enhanced academic attainment. How we assume any longer that we are serious about creating a conducive learning environment, is that we have no satisfactory response to the questions, on what model of learning do we operate with and how do we get better practice and that of our students? present is a physically powerful in the thought that instructor, route designer and instructive psychologists be supposed to give regular notice to student's knowledge style- by assessing them, and hopeful students to

Reproduce on them and through giving them education and knowledge intervention approximately to them. At the time this activity is completed, learners resolve to become more aggravated to study by knowing meaningful their areas of strength and weakness. In turn, teachers can react to student's strengths and weaknesses, then



student's attainment rates in official programs will probably go up and knowledge to study skills will be given for lifelong knowledge.

Sternberg<sup>[7]</sup> future that styles of learning has some components which socialized, individual and can be changed. Learner's information of their learning styles can assist them build up their meta-cognition and learning skills and abilities to the maximum. Thus their learning. In précis, Sternberg<sup>[7]</sup> held better consciousness of learning styles aid students to be extra adjustable in their instructional technique and to use variety classroom teaching techniques. The motive is not compare teaching style to student preference, but to also to assist the students to put together their skills and capacities to study well in both preferred and less preferred styles of learning (meta-learning).

Thus, by increasing the effectiveness of life-long learners who can check their learning strategy and assess their outcomes or achievements of students, Jonassen and Grabowski<sup>[8]</sup> saw the alteration in behavior as a result of acquired knowledge. However, they went further to differentiate among knowledge as the means which explained conclusion and result of the knowledge practice; education as the procedure that emphasize what occurs all during study knowledge in obtaining knowledge creation or result; and knowledge as purpose that highlights key aspect of life, like incentive, preservation, and move that makes modification of conducting persons learning behavior, learning styles are described as the features of cognitive, effectual, and psychosocial domains that serve up as comparatively stable indicators of how individuals speak about, distinguish, interrelate by means of, and respond to the knowledge situations. Keef<sup>[9]</sup> and Hartley<sup>[10]</sup> defined knowledge style as it is a learner's reliable means of answering to by stimuli in the background of knowledge. A knowledge method is a special form, from side to side which an individual scholar likes to understand learning, resolved difficulties, by reasoning or simply spread in an educational state<sup>[11]</sup>.

Idea of education is applied to explain person difference in a technique which people learn. Every individual has a characteristic or ways to process knowledge and information.

Perplexing studies in several ways is a request of learning style hypothesis has begun the procedures used to classify the learning styles. There is no any present existing but however, several potential scales and classifications are subsequently being used. Majority of the tools are classified more alike and focus on ecological preference, by using sensory modalities, character, and reasoning styles and absence of a theoretical structure for learning style hypothesis and dimension is the most ordinary problem in this region.

Cognitive style-at its very least- can be considered as one of the important part of learning style. Hartley<sup>[10]</sup> stated that learning style is a cognitive method which provide ways in which different persons can respond in dissimilar cognitive on everyday jobs.

## 2. OBJECTIVE

To identify differences in learning Styles of Senior Secondary Students in Nigeria

## 3. HYPOTHESIS

There is significant difference in the learning style of senior secondary school students.

**4. METHODOLOGY**

The present study is descriptive in nature, which research aims to accurately and systematically describing a population, situation or phenomenon. Data for the study was collected from senior secondary school students by randomly selecting the sampled population.

**4. 1SAMPLE**

The present study used sample of two hundred (100 male and 100 female) students drawn from (5) senior secondary schools. Both male and female students are considered in this study. Simple random sampling technique was used to select twenty (20) male and (20) female students from each of the five schools under study making a total of two hundred (200) students. Care has been taken to pick 20 males and 20 females from each school.

**TOOL:** The Index of Learning Style (ILS) is developed by Richard M. Felder and Barbara A. Solomon (1994), was used in the present study

**STATISTICAL TECHNIQUES:** Frequency analysis was used to determine the response and percentage scores of each category of student’s response.

**5. RESULTS**

**Table 1:** The table below shows the classification of students on the basis of their categories of learning style.

Category	Activist-Reflector		Sensing-Intuitive		Visual-Verbal		Sequential-Global	
	Activist	Reflector	Sensing	Intuitive	Visual	Verbal	Sequential	Global
Frequency	177	23	102	98	56	144	191	9
Percent	88.5	11,5	51.0	49	28	72	95.5	4.5

Table above shows the frequency of the following categories of learning styles and their percentages. Activist-Reflector, Sensing-Intuitive, Visual-Verbal and Sequential-Global, 177-23, 102-98, 56-144, 191-9, and the following percentages 88.5-11.5, 51.0-49, 28-72 and 95.5-4.5. From the above distribution, it shows students interests in various learning styles; Activist, Sensing, verbal, and sequential substantially differ from each other.



**Table 2:** Categories of learning styles

	Activist-Reflector		Sensing-Intuitive		Visual-Verbal		Sequential-Global	
	Frequency	Percent	Frequency	percent	Frequency	Percent	frequency	percent
Mild	87	43	169	84.5	161	80.5	45	22.5
Moderate	80	40	31	15.5	37	18.5	134	67.0
Strong	33	16.5	-	-	2	1	21	10.5
Total	200	100	200	100	200	100	200	100

Table above shows the preferences of students in different categories of learning styles into mild, moderate and strong. Activist-Reflector, Sensing-Intuitive, Visual-Verbal and sequential-Global into frequencies and percentages of 87-43, 80-40, 33-16.5 for Activist-Reflector, 169-84.5, 31-15.5 for Sensing-Intuitive, 161-80.5, 37-18.5, 2-1 for visual-verbal and 45-22.5, 134-67.0 and 21-10.5 for sequential and global. From the above table students have high preferences on sensing-intuitive with 169-84.5, 31-15.5 and visual-verbal with 161-80.5, 37-18.5, 2-1 respectively. This further shows the differences in the learning styles of students.

### CONCLUSION

The study was carried out to identify the learning styles of senior secondary school students in Nigeria. The findings revealed that, students have high interest in learning styles in the category of Activist, Sensing, verbal, and sequential. Furthermore, the results also indicated that students have high preferences in sensing-intuitive and visual-verbal respectively, thereby meaning that there is significant difference between learning styles adopted by senior secondary school students in Nigeria.

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