

## STUDENTS' VIEWS ON MATHEMATICS LEARNING: A CROSS-SECTIONAL SURVEY OF SENIOR SECONDARY SCHOOLS STUDENTS IN KATSINA STATE OF NIGERIA

**Fahad Suleiman**

**Abstract:** *The aim of this paper is to study students' view on mathematics learning in Katsina State Senior Secondary Schools of Nigeria, such as their conceptions of mathematics, attitudes toward mathematics learning, etc. A questionnaire was administered to a random sample of 1,225 senior secondary two (SS II) students of Katsina State in Nigeria. The data collected showed a clear picture of the hurdles that affect the teaching and learning of mathematics in our schools. Problems such as logistics and operational which include shortage of mathematics teachers, non-availability of a mathematics laboratory, etc. were identified. It also depicted the substantial trends of changing views and attitudes toward mathematics across secondary schools. Students' responses to the conception of mathematics were consistent and they demonstrated some specific characteristics of their views in learning mathematics. This survey has provided useful information regarding students' needs and aspirations in mathematics learning for curriculum planners and frontline teachers for future curriculum reform and implementation.*

**Keywords :** *Attitude, education, mathematics, students*

Mathematics education is the pivot of all sciences. Achievement of Nigeria's vision 20:2020 therefore is based principally on the successful attainment of the objectives of mathematics education at all levels. The removal of all impediments or problem areas in the achievement of the goals of mathematics education has become imperative at all levels of education so as to maintain the enviable position of mathematics in nation building. [1]. Traditionally, the major emphasis of elementary mathematics has been to teach children arithmetic – addition, subtraction, multiplication and division of whole numbers, fractions, decimals and percentages. But mathematics involves more than computation. It is the study of patterns and relationships; a science and a way of thinking; an art which is characterized order and internal consistency [2]. Mathematics requires a good foundation, understanding of basic principles of number, logic, clear thinking and the ability to apply what you know to new and unfamiliar situations. The close relationship between students' view on mathematics and their learning of mathematics has been widely recognized. On the other hand, students' experiences in learning mathematics influence the formation of their views [3]. On the other hand,

their views or belief affect how they behave in learning Fahad Suleiman is with the Department of Mathematics & Statistics, Federal Polytechnic Kaura Namoda, Zamfara State, Nigeria (phone: +2348027669429; e-mail: fssalai@gmail.com).situations, which in turn affect the way they learn mathematics[3].

### REFERENCE:

*1. sees mathematical beliefs as a regulating system which has a prognostic character. In their words, mathematical beliefs form a frame for an individual's knowledge structure which broadly influences the mathematics performance of the individual. For example, when a student sees mathematics merely as calculations, this understanding of the student is often as a result of teacher – dominated learning situation with special emphasis on calculations. In that case, tasks that require a deep level of thinking might be difficult and even impossible for the student. In the present article, we study students' views on mathematics and mathematic learning, including their conception of mathematics, their attitude toward mathematics and their perceived views of the importance of mathematics laboratory in learning mathematics. The findings, we believe, will present an important reflection for the realistic learningsituation of the mathematics classroom in Katsina State from the learners' perspective. To elaborate, we aim at investigating the following in our study: 1.Students' conception on mathematics. 2.Students' attitude toward mathematics learning such as interest, confidence, etc. 3.Students' preference of understanding with regard to the use of mathematics laboratory.*

*II.METHODOLOGYA.Sample and Administration The study was carried out in June 2015. The sample for this study was drawn from 14 randomly selected senior secondary schools in Katsina State. The cluster sampling technique based on the seven education zones in the state was used to select two schools from each education zone to participate in this study.*

*[4] opined that if the total area of interest happens to be a big one, a convenient way in which a sample can be taken is to divide the area into a number of smaller non-overlapping areas and then to randomly select a number of these smaller areas with the ultimate sample consisting of all units in these small areas or cluster. Based on the above experts' decision, the researcher decided to select the following schools: i.Government College (Pilot) Funtua Students' Views on Mathematics Learning: A Cross-Sectional Survey of Senior Secondary Schools Students in Katsina State of Nigeria Fahad Suleiman*

ii. Government Pilot Day Secondary School Bakori iii. Government Day Secondary School Danrimi iv. Government Pilot Day Secondary School Dayi v. Government Girls Arabic Secondary School Dutsinma vi. Government Pilot Secondary School Safana vii. Government College (Senior) Katsina viii. Government Day Secondary School Jibia ix. Government Day Secondary School Muduru x. Government Pilot Day Secondary School Mashi xi. Government Day Secondary School Kankia xii. Government Senior Secondary School Ingawa xiii. Government Senior Secondary School Daura xiv. Government Day Secondary School Kalgo – Gari A total of 1,225 students involved in this research were randomly selected from these schools.

*e findings of the study reveal a clear picture on how students perceived the concept of mathematics learning, in which most of the students disagreed with item one, i.e. Mathematics is primarily an abstract subject. Another facet of the students' conception of mathematics was that of item two and three, i.e. Mathematics is primarily a formal way of representing the real world and Mathematics is primarily a practical and structured guide for addressing real situations, which were 52% and 72%, respectively, agreed with the strong opinion that mathematics is primarily both a formal way of representing the real world and a practical, structured guide for addressing real situations. That is to say mathematics learning is essential in solving socio-economic problems. Moreover, research findings in the hypothesis one indicates that mathematics laboratories in our schools are of great importance and that government should endeavor to build mathematics laboratories in our secondary schools, since it is a contributing factor for improved performance of the students, especially in learning mathematics. According to the research results, a lack of such laboratories in a school can easily affect the students' performance in mathematics, and therefore, can also have an affect other related science and social science subjects that require mathematical applications. Hypothesis II shows that students were interested in mathematics lessons which contribute to their positive attitudes toward learning the subject. Among all the students, interest in attending mathematics lessons was not as high as the interest in mathematics itself. They also possessed a very positive attitude not only to their competence, but also to themismatch of the curriculum in a broader sense. Curriculum developers and teachers should reflect upon whether our intended curriculum (curriculum documents, text books) and our implemented curriculum (including classroom teaching and teaching style) suits the needs of our students and also helps maintain their interest in the subject throughout their schooling. Nevertheless, a lack of qualified mathematics teachers has affected the quality of education in Katsina State. It is a problem that has resulted in the production of students with a poor academic background. According to [5],*

*“The Governor of Katsina State of Nigeria, Aminu Masari, on 1st July, 2015 said his state lacks qualified teachers in two key*