

## **THE IMPACT OF CLASSROOM ASSIGNMENTS ON STUDENTS' PERFORMANCE IN JUNIOR SECONDARY SCHOOL MATHEMATICS IN AWGU EDUCATIONAL ZONE OF ENUGU STATE**

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### **ABSTRACT**

This research work took a close look at the influence of class room assignment on studies' performance in junior secondary school mathematics in Awgu Local Government Area of Enugu State. To achieve this purpose, three research questions were formulated. The sampling technique adopted by the researcher was simple random sampling and the sample for the study was 120 respondents. The instrument used for data collection was a structured questionnaire and were analyzed and interpreted using arithmetic mean and standard deviation. The result of this study revealed that take home test, exercised and project influence students 'performance in mathematics. Based on the findings, its recommendation and implication for the study were discussed in the same context.

### **INTRODUCTION**

Mathematics as a science subject helps us in the development of any country. It helps us to calculate, measure object, deals with money and even keeps account of our daily, transaction. Mathematics is so important that various government and educationalist have worked to produce sound programmes for the study of mathematics at all levels of our education system. Mathematics is a very important subject in our institution of learning. It is a very important in our pre-primary, primary and secondary schools. It is so important that it is taught in all private and government owned institution of learning. The important of mathematics is limitless to the extent that it is a law that before one could get admission into any higher institution of learning the person is required to possess the minimum of five (5) credits in the subject areas which must include mathematics. The role of mathematics toward the mental development of both children and adult cannot be over emphasized. That is why any body who cannot count correctly is regarded as • not being normal at all. The level of the development of any nation has it base on the technological base, which is a product of mathematics: In science, mathematics is the driving force; virtually every field of science involves mathematics. For example in the secondary school, science subject such as chemistry physics, geography etc as well as advanced level courses such as biology, anthropology, archaeology, medicine and physical and natural science all have their bases

in mathematics. Even in arts and management has continues to play key role that cannot be over looked.

Mathematics as a discipline has been defined .by so many experts in diverse ways. According to Okereke (2005), mathematics is described as the language of science. According to Odili, G.A. (2006:3), mathematics is the science of quantity and space. He goes further to describe it thus “it is a systematicized, organized and exact branch of science.

On the area of take home assignment, concept of take home assignment serves various educational needs. It serves as an intellectual discipline, establishes study habits, ease time constraints on the amount of curricular materials that can be covered in class and supplements and reinforces work down done in school.

In addition, it fosters student initiative, independence and responsibility and brings home and school closer together.

Assignment is defined as tasks assigned to students by their teacher to be completed mostly outside of class, and derived its name from the fact that most students do the majority at home (Robinson, 2003:45). Assignment may be a task given to students by their teacher to be completed out of the class time. The basic objectives of assigning assignment to students are the same as schooling in general. It is less clear whether assignment can facilitate parent’s involvement in children’s school work. However, some researchers have found that assignment has a positive effect on parents and families by allowing them to show an interest in their children’s academic progress. Assignment appears to provide more academic benefits to older students than to younger students for whom the benefit seem to lie in non-academic realms, such as improving study skills and learning structure and responsibility.

Research in the last decades has begun to focus on the relationship between assignment and student achievement and has greatly strengthened the case of assignment. Although, there are mixed findings about whether assignment. Many teachers and parents agree that assignment develops students’ initiate and responsibility and fulfills the expectation of students, parents and the public. Studies generally have found assignments to be mostly helpful if they are carefully planned by teachers and have direct meaning to the students. It is very important to investigate the influence of take home assignment on students’ performance in junior secondary school mathematics.

## **2.0 CONCEPT OF MATHEMATICS**

According to Odili (2006:3), mathematics is the science of numbers and space. “It is a systematize, organize and exact branch of science”. It is a creation of the human mind concerned primarily with ideas, processes and reasoning. Therefore, mathematics deals with the study of quantity, structure, space, change and related topics of pattern and form. Mathematics can be variously as a body of knowledge, a collection of techniques and methods, and the product of human activity and even as the activity itself, namely the problem solving. Hirst and Peters (2001), regard mathematics as one of the seven forms of knowledge. Mathematics is characterized by its disintective concept, preposition and method of verifying its preposition, namely logical proof Though the use of abstraction and logical reasoning, mathematics evolved from counting, calculation, measurement and systematic study of the shapes and motions of physical objectives. Knowledge and use of basic mathematics have always been an inherent and integral part of an individual and group life.

According to Ernest (2003), it is a body of infallible and the objectives truth, far remove from the affairs and values of humanity. Ezeilo (2002), noted that they can be real no development in mathematics technological with a corresponding development in mathematics, both are conceived and practice. Therefore, it is not surprise to discover that most effective and unparallized accomplishment of human being is found in his effort to utilize its mathematical reasoning (Kline, 2004 Waismann, 2005). In this regard, mathematics has been described as the queen and as well as the hand maid, the master and servant of science and the leadership and service rule of play. Aminu (2008), further posits that mathematics is not only the language of science but it is the essential nutrient for thought, logical reasoning and therefore progresses. Mathematics is important, that is why no person can be admitted into higher institution without a credit pass in mathematics. And from the society perspective mathematics completely is essential for the preparation of an informed citizenry and for continuously production of highly skilled, personnel required by industry, technology and science. The progress of any nation depends upon her scientific and technological advancement which can only be built on sound mathematics education capable of making the citizen effectively functional in the natural and applied science. The study of mathematics therefore will go along way to equip students to live effectively in modern age of science and technology, NPE (2004). The study of this subject will form in the students the habits clarity, accuracy, precision and certainty in expression and these will go along way in given us much need in this country. In homes, offices, market places and play ground will get involved in one argument or the other. The success in any argument depends on the persuading and thee is nothing more persuasive than a logical argument. So, the idea of logic where the validity and consistency of the absorption and the definition upon which the conclusion are based will help to eliminate conflict in our society. Mathematics also helps men to shaping his understanding and definition of religious concept. Such concept as internity, heaven, spirit, life, power, truth, grace, neighbour, son and death can each be defined with mathematics rigor precession. At a time when even a common man is being increasingly dependent upon the application of science and technology in the day-to-day activities of life. The role of mathematics has undoubtedly been redefined. Right from getting up in early hours of the day to the ringing of an alarm to waits for the counts of whistles of the cooker, to exchange currency at a ticked outlet which availing a public conveyance, almost every next moment mathematics comes to play a role.

### CONCEPT OF TAKE HOME ASSIGNMENT

Take home assignment is defined as task assigned to students by their teachers to be completed mostly outside of class, and derived its name from the facts that most students do the majority at home (Cooper H. 2008:3). Many students find take home assignment to be annoying. While many schools and teachers generally insist that it is necessary to practice new skills and to be better learn material. Take home assignment is time spent outside classroom, a activity practice to reinforce, to focus on the relationship between take home assignment and student achievement and has greatly strengthened the case for take home assignment. Although; are mixed findings about whether take home assignment actual increases students' academic performance. Many teachers and parents agree that take home assignment develops student's initiative and responsibility, and fulfills the expectations of students, parents and the general public. Studies general found take home assignment to be most helpful if they are carefully planned by teachers and have direct meaning to the students.

Does take home assignment help or hinder students learning and which students, under what conditions, does it help or hinder? "School board members have long struggled with this question as they strive to implement policies that will support student learning. Parents worry that their children have too little take home assignment or too much and teachers get criticized for both. In the recent years, the issue has received increased attention in the popular press and has become a topic of controversy. Unfortunately, research and commentary offers conflicting

conclusion on take home assignment. During the past decades, according to Gill and Schlossman (2004), leading educational spokes person have celebrated take home assignment as essential to raise educational standards, foster high academic performance, upgrade the quality of the labour force, and link family and school in common teaching mission, however, according to the school library journal (2005) students are receiving higher grades with less outside preparation, while the Washington post (2006) reports that the increase in the amount of student take home assignment has increased argument against it. Alfie Kohn, a critic of take home assignment, recently wrote". There was no consistent linear or curvilinear between the amount of time spent on takes home assignment and the child's level of academic performance (2006:15)

Other researcher's claims that take home assignment help students develop responsibility and life skills and the ability to manage tasks and that it provides experimental learning, increased motivation, and opportunities to learn to cope with difficulties and distractions and academic benefit (Como and XU 2004, Coutts 2004, XU and Corno 2003). While many researchers take either positive or negative stance on take home assignment, Cooper (2001) takes a more balanced approach, stating, research on the impacts of take home assignment suggest that it beneficial as long as teachers use their knowledge of developmental levels to guide policies and expectations. Cooper goes on to explain that take home assignment has both positive and negative impacts on various aspect of students lives. As this review will show, the research suggests that take home assignment may benefit some students under certain condition. Older students appear to benefit more than younger students, for example. Although, the link between parent involvement in take home assignment and student learning is far from clear, students from lower income households may not have as much support at home as those from more affluent families, as a result, take home assignment may not be a valuable learning experience for them. Today, however, there is disagreement not only about the value of take home assignment but also about whether students are assigned too much of it or too little. Some researchers report despite that media reports of a public revolt against take home assignment, the majority of parents, educators and policy maker's support take home assignment performance. Cooper (2008:3) argues that review of the link between take home assignment and performance often directly contradict one another and so different in design that the findings of one study cannot be evaluating fairly against the findings of others.

The link between take home assignment and students' performance is far from clear, as noted by Cooper and other researchers (Trautwein and Koller 2003). Much research has been conducted to try understanding the ways in which various types of take home assignment and various situations influence different groups of students. This research indicates that a variety of factors influence take home assignment impacts on students, including the subject matter, the amount of take home assignments classroom factor such as provision of material and following decision in class, and home or community factors such as parent involvement (Cooper 2008). Most studies that measure the impact take home assignment on students' performance focus on take home assignment Completed without help from others.

### **IMPACTS OF TAKE HOME TEST ON STUDENT'S PERFORMANCE IN MATHEMATICS**

Take home tests are powerful educational tools that helps to evaluate students and assess whether they are learning what you are expecting them to learn (Crooks 2006). Well designed takes home tests serve to motivate and help students structure their academic efforts. Crooks (2006), Mceachie (2008) reported that students study in ways that reflect how they think they will be tested. When students involve themselves in take home tests, it helps them to study in details to get the total concept of the subject matter. Take home tests enable the students to expect a test that will require problem solving. Take home test increases the students' performance through integrating the knowledge towards understanding and applying information. Take home

tests makes the students to understand how successfully their presenting their material. Take home test can reinforce learning by providing students with indicators of what topics or skills they have not yet mastered and should concentrate on.

### **POSITIVE AND NEGATIVE IMPACTS OF TAKE HOME ASSIGNMENT ON STUDENT'S PERFORMANCE IN MATHEMATICS**

The most direct positive impacts of take home assignment is that it can improve retention and understanding. More directly, take home assignment can improve students study skills and efforts towards school and teach students that learning can take place anywhere, not just in school buildings. The non-academic benefit of take home assignment includes fostering independence and responsibility. Take home assignment helps to prepare the student for the upcoming (or complex or difficult lessons, extend what they know by having them applying it to new situation or to integrate their abilities by applying many skills to a single task.

Finally, take home assignment can involve parents in the school process, enhancing their appreciation of education and allowing them to express positive effect towards the value of school success. Take home assignment can be used to inform parents about what is going on in school. Conversely, educators and parents worry that students will grow bored if they are required to spend too much time on academic material. Take home assignment can deny access to leisure time and community activities that also teach important life skills. Parents involvement in take home assignment can actually lead to the acquisition of the undesirable character trait if promote cheating, either through the copying of take home assignment or helps with take home assignment that goes beyond tutoring. Finally opponents of take home assignment cite take home assignment as a rote or grind work designed to up children's without offering tangible benefit. Take home assignment could accentuate existing social inequalities. Children from disadvantaged home may have more difficulty completing take home assignment than middle class counterparts. Take home assignment create room for the students to be punished which deprive them from participating fully in the academic performance in school. It can also lead to children's frustration, and exhaustion, lack of time for other activities and possible loss of interest in learning.

### **EMPIRICAL STUDIES**

There are research works that are related with the present study. Eze (2004) carried out a research on the topic "impacts of homework on teacher's productivity in senior secondary school in Umuahia North Local Government Area of Abia State". The problem of the study was to determine the influence of assignment on teacher's productivity. It could be improved in order to provide more relevant, instruction. The population of the study was 750 teachers. The sample was 250 teachers and the sampling. The research design was descriptive survey research design. The findings show that teachers' productivity is greatly enhanced by home works.

### **RESEARCH DESIGN**

The research design used for the study is descriptive survey research. This is to enable the researchers investigate the influence of take home assignment on students' performance in junior secondary school mathematics.

### **AREA OF THE STUDY**

The area of the study was Awgu Local Government Area of Enugu State. This is a result of poor performance of our junior secondary school students in mathematics which was attributed to lack

of regular take home assignment on student's mathematics after teaching by their teacher for continuous study at home.

### **POPULATION OF THE STUDY**

The record population for 20 10/2011 academic sessions for junior secondary school in Awgu L.G.A of Enugu State was 582.

### **SAMPLE AND SAMPLING TECHNIQUES**

A sample of 120 junior secondary school students was the respondent in the study. There were six selected public junior secondary school in Awgu Local Government Area of Enugu State. The junior secondary school students were stratified into stream-classes 1,2 and 3. The selected junior secondary school student's class for the sample was JSS II students from each six selected secondary school. A sample random sampling was then employed for each class in each school selected. Twenty (20) students were sampled from each school making a fatal of 120 as sample.

### **INSTRUMENT FOR DATA COLLECTION**

The instrument used for Data collection was a questionnaire titled "the influence of take home assignment on students' performance in junior secondary school mathematics". The questionnaire was structured and divided into two sections. "A" and section "B". Section "A" was used to collect information on personal data of the respondents while section "B" dealt with the main research questions for the study. Section "B" further comprises ten (10) questions. Each subsection consisted of three (3) item questions. The respondents were expected to respond thus to research question 1, II and III.

SA	Strongly Agree	4 Points
A	Agreed	3 Points
D	Disagreed	2 Points
SD	Strongly disagreed	1 Point

### **VALIDATION OF THE INSTRUMENT**

To ascertain the face validity of the instrument, the questionnaire was submitted to the supervisor and two other experts in the English department of faculty, of education in Ebonyi State University Abakaliki. Their corrections, suggestions and modification were taken into consideration while preparing the final draft of the questionnaire.

### **RELIABILITY OF THE INSTRUMENT**

The reliability approach used for the study was trial testing. Twenty (20) copies of the questionnaire were administered to twenty (20) respondents, from each selected public secondary school that was not-involved in the main study. After which, Cronbach ALPA testing was adopted for computation of the reliability, which give a reliability coefficient of 0.65 that adjusted highly consistent.

### **METHOD OF DATA COLLECTION**

The questionnaire was administered personally by the researcher with the help of research assistant to the 120 respondents and collected at the spot. A day usually set aside to visit as many school as possible to administer instrument. The researcher usually stays back to collect the



completed questionnaire. This made it possible for the student to collect back all 120 questionnaires filled.

### METHOD OF DATA ANALYSIS

The researcher used arithmetic mean and standard deviation in the analysis and interpretation of data. The interpretations were based on the following rating scales.

Strongly Agree	4 Points
Agreed	3 Points
Disagreed	2 Points
Strongly disagreed	1 Point

### DATA PRESENTATION AND ANALYSIS

The data collected were presented and analyzed in this chapter using mean and standard deviation in accordance with the research question. Hence, the researchers were mainly concerned with the analysis of the research data gathered through the administration of 120 structured questionnaires to the respondents.

### RESEARCH QUESTION

Influence of take home test on secondary school students in mathematics.

**Table 1:** Mean (X) responses of respondents on the influence of take home test on secondary school students in mathematics.

S/N	ITEMS	SA	A	D	SD	X	S.D	IN
1	Take home test helps to improve the students' performance in mathematics.	28	39	25	28	2.56	1.09	A
2	Take home test enhances students problem solving skills in mathematics.	35	42	25	18	2.78	1.03	A
3	Take home test encourages high-level performance in mathematics.	42	34	18	26	2.76	1.15	A
4	Take home test lesson teacher's work load leading to effective teaching in mathematics.							A
5	Take home test does not have any impacts on teaching and learning processes in mathematics.	29	17	41	33	2.35	1.13	NA
6	Take home test helps students use their previous knowledge in mathematics.	42	38	25	15	2.89	1.05	NA
7	Take home test helps students use their previous knowledge in mathematics.	42	38	25	15	2.89	1.05	A
8	Too much take home test reduces students' performance in mathematics.	35	50	28	7	2.94	0.87	A
9	Take home test encourages students to copy from others hindering proper performance in mathematics.	19	38	48	15	2.51	1.09	A
10	Some teachers use take home test as a cover for teaching some topics thereby hindering students' performance.	50	30	35	5	3.07	0.94	A
<b>Grand Mean (X)</b>							<b>2.76</b>	<b>A</b>

**Source:** Researchers Field Work, 2017.

From the table one (1) above, it can be observed that items 5 and 6 were not agreed by the respondents as the influence of take home test on secondary school students in mathematics because the mean response on each item is below the cut off point 2.5. The mean response on item 5 is 2.35 and item 6 is 2.28 less than 2.5 cut off point. Items 1,2,3,4,7,8,9 and 10 were agreed by the respondents because mean responses are 2.56, 2.78, 2.76, 3.04, 2.89, 2.94, 2.51, and 3.04 respectively are above the cut off point 2.5. But the grand mean ( $\bar{x}$ ) is 2.76 which is above the cut off point 2.5 which means that the respondents agreed that take home test influences secondary school students in mathematics.

## CONCLUSION

In the view of the findings done so far, the researcher briefly and concisely concluded that take home assignment influences students' performance in Junior secondary school mathematics in Awgu Local Government Area of Enugu State.

Based on the findings, it was discovered that take home test, exercises and project influences students' performance in mathematics.

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