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# **Influence of Teachers' Motivation on Students' Performance in Mathematics in Secondary Schools in Okpokwu, Benue State, Nigeria**

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## **Abstract**

This study adopts the descriptive survey research design to examine the influence of teachers' motivation on students' performance in mathematics in secondary schools in Okpokwu Local Government Area of Benue State, Nigeria. Three research questions were raised to guide the study. The sample comprises 192 Senior Secondary School II students

in Okpokwu Local Government Area of Benue State, Nigeria. The instrument used for data collection is a structured questionnaire designed by the researchers titled "Influence of Teachers' Motivation on Students' Performance Questionnaire (ITMSPQ)". Data collected were analyzed using mean and standard deviation. The findings revealed that teachers' condition of service has influence on the students' performance in mathematics in Okpokwu LGA, Benue State, Nigeria. Also the result showed that teachers' upward job mobility (promotion) has influence on students' performance in mathematics. Lastly it was revealed that payment of teachers' salaries regularly and on time influences students' performance in mathematics. These findings have shown that with teachers' motivation, the students' academic performance in mathematics can be enhanced in Okpokwu LGA, Benue State, Nigeria. The paper recommends that for proficient delivery of mathematics knowledge, secondary school proprietors, most especially those within the study area, should take the issue of teachers' motivation seriously by paying their salaries when due, providing the appropriate resources needed for delivery of mathematics knowledge and assign appropriate workload in order not to overload them. The Ministry of Education should regularly access teacher's file and grant promotion to teachers when due according to their qualification, dedication and workload. School authority should regularly create means for teachers' in-service training such as seminars and orientation section that will help the teachers get more acquainted with job description and resource.

**Keywords:** Motivation, Mathematics Education, Teachers' Salaries, Upward Job Mobility, Academic Performance, Okpokwu

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## Introduction

The concept of motivation is considered as a crucial factor that influences human behavior and performance. The term motivation is derived from the word "Motive" which in turn derived from Latin word "*emovere*" meaning "move" (Ibok, 2020). Motives are forces or drives that energize and direct us to act as we do. Motivation is a very important psychological concept which helps and individual to consistently strive to achieve an objective. Motivation is an inner drive in an individual to excel in whatever he or she is doing. According to Ibok (2020), motivation has a dual component of intrinsic and extrinsic values. Motivation is the positive change in mental and physical activities that are targeted toward achievement.

Shameena (2009) asserts that motivation could be defined as the actively heavy force within persons that push them to move forward and to perform, in respect to attain their projected wants and opportunity. In simple terms, it is number of causes that ultimately pull an individual to do a specific task and induce completion of their needs and expectations on the job. Motivation is simply doing the work with efficacy in support of organization. Motivation is of particular interest to educational psychologists because of the crucial role it plays in student learning. However, the specific kind of motivation that is studied in the specialized setting of education differs qualitatively from the more general forms of motivation studied by psychologists in other fields. Motivation in education can have several effects on how students learn and how they behave towards subject matter. It can direct behavior toward particular goals, lead to increased effort and energy, increase initiation of, and persistence in, activities, enhance cognitive processing, determine what consequences are reinforcing and lead to improved performance (Cerdan, 2017).

Egbe (2012) states that teacher motivation is what energizes teacher behaviour, or what directs or channel behaviour and how the behaviour is maintained and sustained. It is the additional incentive given to teachers or workers in order to induce them to work hard. Motivation is the driving force that causes flux from desire to will in life. It is the process that initiates, guides and maintains goal-oriented behaviours (Egbe, 2012). It is teacher intrinsic enthusiasm that drives to accomplish activities related to academic work. These teachers' motivational variables amongst others include; teachers' condition of service, upward job mobility (promotion) and regular payment of salaries (Egbe, 2012).

There is a continuous quest to improve the conditions of service in the teaching profession. This has brought into focus the need to look into some motivational variables that will combat or possibly eliminate teachers' attritional tendencies. Ibok (2020) opines that what makes a job satisfying or dissatisfying does not depend only on the nature of the job. It depends also on workers' motivation, which of course is the reason for picking that job. Mathematics teachers do not prefer other jobs to teaching because of the nature of the job, but because of the motivational strategies that are prevalent in them.

Regular promotion is another variable that talks about the movement of an employee from one rank to the other. It is a positive way employers can reward their employees. It is a variable that can motivate or de-motivate teachers' desire to stay or leave the job. Promotion comes with job advancement, Job advancement comes with higher wages and higher wages are associated with change in status and prestige (Ibok, 2020). Teachers will have a change in status and prestige if they are promoted and are allowed to enjoy reasonable benefits from this promotion.

Regular payment of teachers' salary as at when due can make teaching profession really attractive (Ubo, 2013). It can be the best way of stimulating both the interest of those in it and those who wish to take teaching as their profession (Egbe, 2014). Regular payment of teacher salary can be the only incentive that can enhance teachers' productivity. Regular payment of teacher salaries provides a spur or zeal in the teachers for better performance. According to Trase and Lanry (2012), money (salary or pay) has been recognized as chief source of satisfying the needs of workers, therefore money does not only satisfies psychological needs but also the security and socials needs.

In Nigeria, Mathematics is a compulsory subject up to Secondary School level. During the last couple of years, performance in Mathematics in National examinations has dropped significantly and this has been a major concern for the society. The West Africa Examination Council (WAEC) has continued to raise concerns over the poor performance in Senior Secondary Certificate Examination. The report from the WAEC Chief examiners indicate that the general performance of the candidates in mathematics for the 2018, 2019 and 2020 examinations did not differ significantly from those of the previous years (WAEC Chief examiners' report, 2020). However, the Chief Examiners also reported that candidates' performance in mathematics is declining and getting worse every year.

Many teachers have left teaching in public schools for greener pastures in better paying jobs as a result of lack of motivation and incentives needed. Although, it is believed that the reward for the teachers is in heaven, but there is no doubt about the fact that if

the limited or no motivation for the teachers in terms of incentives and innovation may drastically reduce their morale which may in turn have a negative impact on student performance in mathematics. The few teachers on the government payroll are poorly remunerated as a result most of them take up part time employment or private business enterprise in order to make ends means. This greatly reduces their commitment to the teaching of Mathematics (which demands for sacrifice). However, lack of motivations for the teachers may influence their dedication to teaching work (Ubo, 2013). It is not clear whether this poor performance is as a result of teachers' ineffectiveness which stems from low job motivation. It is against this backdrop that the present study seeks to find out the influence of teachers' motivation on students' performance in mathematics in Secondary Schools in Okpokwu Local Government Area of Benue State, Nigeria.

## **Statement of the Problem**

A good knowledge and application of principles of the National Policy of Education by the citizens of this country will be a great benefit to the nation as a whole. However, the few trained and qualified teachers hardly stay as classroom teachers as they find other forms of employment or are in higher institution of learning to better the poor pay. The school teachers play a vital role to manage the behavior of the students. In addition, the secondary level is an important stage of education and as such it is important to know the teachers' attitudes towards their jobs. Teachers are important because learning programs used in schools are run by them. The quality of education depends, among other things, upon the teachers' job satisfaction from motivation. For effective education, higher level of job commitment and job satisfaction are required. Teachers' job satisfaction depends on many motivational factors such as work environment, pay, promotional facilities, and relationship with coworkers, management as well as their position in the society.

Teachers are responsible for translating educational policy into action and principles based on practice during interaction with their students. The WAEC Chief examiners' reports of 2018 WASSCE mathematics indicate that students recorded only 50% pass as credit level in mathematics. It further declined to 49.2% in 2019 (WAEC Chief Examiners' reports, 2020). Could this be attributed to the fact that teachers are not properly motivated and they now have a nonchalant attitude towards their work, there inhibiting their effective job performance? Therefore, this study seeks to find out the influence of teachers' motivation on students' performance in mathematics in Secondary Schools in Okpokwu Local Government Area of Benue State, Nigeria.

## **Literature Review**

### **Theoretical Frame Work**

#### **Abraham Maslow's Hierarchy of Needs**

This theory was propounded by Abraham Maslow in United States of America in the year 1954. It states that lower level basic needs like air, food, shelter, drink, warmth, sleep, have to be satisfied first before progressing to meet high-level growth needs. These high level growth needs to include safety, belongingness and love, esteem and self-actualization, using a hierarchy of needs for its illustration. According to Maslow (1954), human beings

are organisms that are perpetually in need. These needs are arranged in a hierarchical order and they propel man to action. The satisfaction of one level of needs leads to the emergence of another. But when needs cannot be satisfied it means they will be dissatisfaction which could give way to tension.

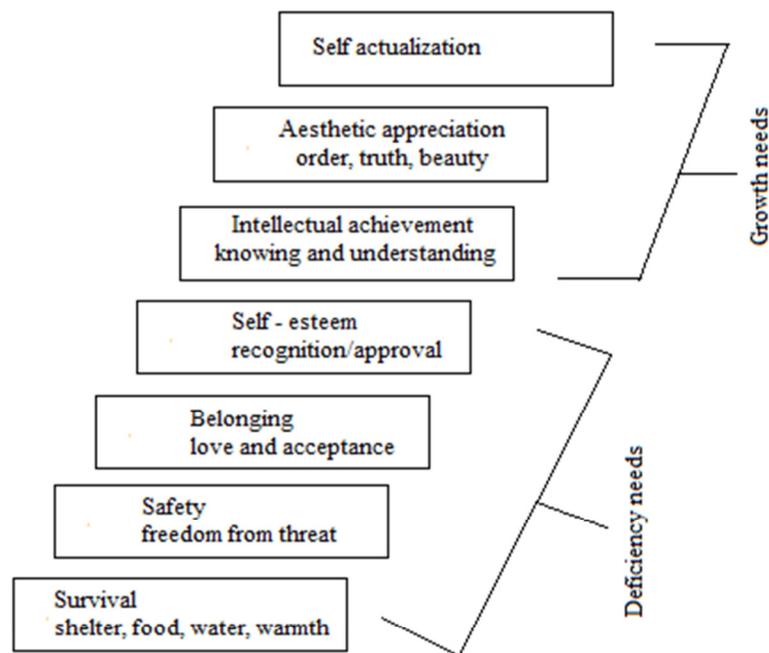
However, Maslow developed a model known as “hierarchy of needs” where physiological and safety needs must be met before proceeding to needs like esteem and self-actualization. In this model, when a particular need is met, it no longer motivates, rather it gives room for another need to take its place. This model has also classified human needs into five categories namely: Physiological needs, Safety and Security needs, Belongingness, Love and Social needs, Esteem needs and Self-actualization needs. The first category talks about Physiological needs that have to do with the physical requirements that contributes towards the sustenance of human lives. These needs are very important-they need to be satisfied first. With this level of needs, teachers should be provided with good income that can buy life’s essentials. Safety and security will come to play after physiological needs have been attended to. Safety and Security needs include, Personal Security (living in a safe place), financial security, health and well-being of employees (medical insurance). Safety and security needs implies that a save environment free from threats should be provided for teachers. The health of teachers should be paramount in the minds of their employers. Free medical attention should be given to them. The Financial security here implies that teachers’ emoluments and other fringe benefits should be given to them as at when due, because it is their right.

Love, social and belongingness needs are the third category of needs in Maslow’s model. This level of needs involves feelings of belongingness, acceptance of human beings in their different social groups, whether big or small. This implies that they should be a cordial relationship between superiors and subordinates in the system. By so doing, some of the teachers will have a feeling of acceptance. They need to love and be loved. The fourth category of needs is esteem needs. This level of needs is divided into two sub-categories of motivation, namely: internal and external motivation. Internal motivation includes self-respect, self-esteem and accomplishment, while external talks about needs like recognition and reputation, attention and social status. This implies that the effort of teachers should be recognized, respected and appreciated by way of motivating them. The last category of needs is the self-actualization needs which require the quest of getting to the top. It is for one to be fulfilled and acquire one’s potentials as a person. Unlike other level of needs, self-actualization needs are never fully satisfied. Teachers should be given the opportunity to get to their full career potentials.

Motivation comes to play as a result of unsatisfied needs. But everyone is not supposed to be motivated by the same needs. At different times in individual lives and careers, employees will have to be motivated with different kinds of needs. It is therefore necessary for management of different organizations to identify which needs are more important for their employees. For some teachers, their needs can be identified as follows: a positive working environment, incessant promotions followed with reasonable benefits, participation in decision making concerning the school, attractive income and self-enhancement.

Conclusively, this theory has a relationship with this research because it has revealed that individuals like some teachers have the desire to move up to the hierarchy in order to achieve self-actualization but the opportunity of doing that is not there in most cases. This is because some teachers have refused to derive the much needed satisfaction in the teaching job. Some, after their training, pick up the job and leave as soon as possible. Some do not even enter the classrooms at all. Some just accept the job so they can use it as a spring board for jumping into their vocations or other areas of their choice. So, teachers do not even have the opportunity to study on and on until they get to the top of self-actualization. Teachers should be given the opportunity of getting to their full career potentials. This will be done by giving them the opportunity to derive satisfaction that will make them stay on the job.

The theory is connected to this study because the theory's belief is that when human beings are hungry, all they need is food to quench this hunger. Teachers as human beings are hungry; they need food to quench their hunger. This food is the motivational strategies that are to be applied in order to make mathematics teachers happy, dedicated, committed and go an extra mile to perform their duties. This they will do by sticking around their job and not always having the intentions to pull out.



**FIGURE 1: Hierarchy of Needs**

## Conceptual Framework

### Mathematics

The word “Mathematics” has a Greek etymology meaning things that are learned. It is defined as an abstract science that deals with logical reasoning and quantitative calculations (Merriam Webster Dictionary, 2018). Fajemidagba, Salman and Ayinla in Egbe (2012) see mathematics as a tool for the advancement of any science-based discipline such as astronomy, graphics, technology, analytical reasoning and industry. From the above definitions, mathematics is the science of structure, order, and relation that has evolved from counting, measuring, and describing the shapes of objects. It deals with logical reasoning and quantitative calculation.

Since the 17<sup>th</sup> century, mathematics has been an indispensable attachment to the physical sciences, social and management sciences and technology, to the extent that it is considered the underlying language of science. It is for this reason that mathematics is universally called the Queen and Servant of the sciences so it must be taught well (Nekang, 2011). Odumosu, Oluwayemi and Olatunde (2012) observe that there is hardly any area of science that does not make use of mathematical concepts to explain its own concepts, theories or models. Iji, Abakpa and Age (2018) opine that mathematics is an indispensable tool which has its contributions virtually in all spheres of life and it is known to be an essential discipline recognized globally. Useni (2012) reveals that Mathematics has always been regarded as the language of science. Mathematics plays a key role in the development of any nation because of its merits in all facets of life.

Simeon and Francis (2012) opine that mathematics is the queen of science and technology and also a tool for scientific and technological development. Similarly, Okechukwu and Oyekunle (2018) acknowledge that without mathematics there is no science, without science there is no modern technology, and without modern technology, there is no society, thus, mathematics is an indispensable subject for scientific and technological advancement of any nation. Madu and Hogan-Bassey (2010) state that Mathematics is made up of a set of concepts, facts, principles, and operations that are fundamental to the existence of every individual. Olosunde and Olaleye (2010) say that is the fundamental science that is necessary for understanding of most fields. According to Ajayi, Lawani and Adeyanju (2011), Mathematics is the queen of all sciences and servant to all discipline. Mathematics, therefore has been found to be a fundamental field of study that deals with the teaching and learning of the methods in the science of size and numbers (Ejakpovi & Ukpebor as cited in David, 2018). Furthermore, Gambari, Falode and Adegbenro (2014) stated that the application of mathematics in other disciplines, mostly in the sciences is appreciative and without it, knowledge of sciences often remains superficial.

### Academic Performance

Academic performance has been seen differently by different authors. Ifeakor (2012) sees academic performance as a change in behaviour exhibited at the end of a given period of

time or within a given time range. Aronson (2010) defines academic performance as the degree of attainment by students in Schools, College and Universities or field work in which the student is sufficiently exposed to. Williams (2018) opines that when talking about academic performance, it is often associated with students' accomplishment of scientific achievements and skills, impressive test scores, extracurricular achievements, students' ability to lead if assigned to. Ballotpedia (2019) defines academic performance as a measure of achievement in which students succeed in obtaining results from various academic subjects. Academic performance enables us to obtain information on the extent to which a student has attained the criterion performance. It also enables us to determine the relative position or rank of individual student with respect to their performance (Etuk, Koko and Eno, 2017). Some of the purposes of academic performance are itemized by Ekhasemomhe (2020) as follows:

- i. To determine the relative effectiveness of the programme in terms of students' behavioural output.
- ii. To identify students' growth or lack of growth in acquiring desirable knowledge, skills, attitudes and societal values.
- iii. To help teachers determine the effectiveness of their teaching technique and learning materials.
- iv. To help motivate students to learn more as they discover their progress or lack of progress in a given task.
- v. To encourage students to develop sense of discipline and systematic study habits.
- vi. To acquaint parents or guardians with their children's performance.
- vii. To predict the general trend in the development of the teaching –learning process.
- viii. To make reliable decision about educational planning.
- ix. To provide educational administrators with adequate information about teachers' effectiveness and school needs.

In summary, academic performance measurement is used for instructional, administrative, guidance and counseling and research purposes.

Poor academic performance on the other hand, is a performance that does not meet standards. Poor academic performance is any performance that cannot meet targets, adequate standards, and expectations, or desires (David, 2018). Poor academic performance refers to the termination of effort caused by fear of doing something (Al-Zoubi & Younes, 2020). A student still strives to reach the goal but cannot succeed in achieving it. Similarly, according to Siqueira and GurGe-Giannetti (2017), poor academic performance can also be interpreted as a result of school achievement below expectations and a lack of cognitive skills.

The explanation above uncovers that academic performance refers to something measured and has results. In contrast, poor academic performance is the result of what is measured, but it does not meet the expectations or standards of achievement. In terms of causes, according to Ghanney and Aniagyei (2019), the contributing factors why students

have poor academic performance are the lack of school facilities, difficulty managing the students, parents' ignorance of their children's needs, and the teachers' limitations in teaching. Afriani (2020) also add that non-conducive teachers' working environment, inadequate supply of teaching materials and learning processes, lack of teachers' motivation, insufficient teacher training, inappropriate government policies, lack of learning methods, and lack of care from parents for their children are several factors causing students to have poor academic performance.

### **Conditions of Service and Students' Academic Performance**

Teachers all over Nigeria seems to be looked down upon because of poor work environment manifesting in poor conditions of service. The Nigerian Secondary School classrooms are poorly furnished; some do not even have chairs for pupils; there are no equipment or infrastructure adequate to promote effective teaching and learning. Several teachers have taught for several years without any form of retraining or professional development to update their skills and methods. It is a known fact that the quality of a teacher and his level of commitment affect the standard of his work (Ibok, 2020). The standard of his work determines the quality of the performance of the students that he teaches. If the good standard of education of children must be maintained, teachers' quality must be improved by improving not only his academic and professional competence but also his work environment. Motivation is a major factor for promoting productivity. Improving the work environment of Secondary School teachers will improve their productivity and educational quality (Ibok, 2020).

Nakpodia (2016) believes that job security of workers in terms of income and employment will enhance stability of personnel and a long term commitment. Many teachers now resort to or engaged in other businesses which take so much of their time and interest at such teaching becomes a secondary assignment. Human nature can be very simple and complex; therefore, a proper understanding and appreciation of this phenomenon remain a prerequisite for any educational institution to initiate an effective employee motivation in the workplace which may consequently culminate in effective and efficient job performance (productivity) among employee workforce. Aside the inherent benefit and moral value of treating colleagues as human beings and according due respect to human dignity in all its entirety, research and observations reveal that well motivated workers remain assets, productive, creative, and perform well to the ensuing organization (Accelteam, 2009).

Research has revealed that teachers' condition of service has a bearing on students' academic performance. For instance, research conducted by Ocho (2012) revealed good condition of service significantly influences students' academic performance. Similarly, Vincent (2010) found that there is a significant effect of condition of service on academic performance amongst Secondary School students. Eresimadu and Nduka (2007) opined that teachers should enjoy good income, just like their counterparts in other professions. This will result to greater stability of personnel and retention of teachers in the school system.

### **Regular Promotion and Students' Academic Performance**

Promotion of an employee involve movement of employee from one rank to the other, from a lower rank to an upper rank within the same field. What employers give to their employees as a reward for hard work and advancement in the job is promotion. Promotion can serve as a motivator or de-motivator for employees. It can also promote or hamper the desire of employee to be stable in the job or to leave the job for another one (Nwagwu, 2008). Ozidi (2008) sees promotion as a positive way employers can reward their employees for their efforts and services in the job. The author also observed promotion as a motivator that can boost the employees' morale and makes them work harder than before.

When employees' promotion takes place, they work efficiently and productivity will increase. If promotion does not take place after an employee has worked tirelessly, it dampens his/her spirit, lowers his/her morale and makes him/her feel frustrated (Ozidi, 2008). Most premature resignations in most organizations are caused by an employee being stagnated (no promotion – being on a particular rank for a very long time). Also in the school system promotion can hamper or promote some teachers desire to stay on the job or to leave. If they are not promoted, productivity will be low; they will feel so discouraged about the job. The urge to leave the job as soon as possible will emerge and this will encourage attrition. But when promotion takes place, teachers will work efficiently to attain the aim of picking up the job. They will work harder to increase productivity and the desire to pull out will not be there (Ani, 2010). Edem (2007) opined that if teachers should notice that their condition of service which includes promotion is not in any way comparable to that of their counterparts in other job areas, the result will be a drastic movement of teachers from the profession to other jobs they will consider more lucrative.

If teachers are promoted as at when due, they will advance in the job. Advancement in the job will come with higher wages. If teachers, wages are higher than there used to be, that will mean a change in status and prestige. They will be able to measure up with other people that matter in the society as their purchasing power will increase. They will be happy, committed and dedicated to the job that has heightened their morale. Hence, everything possible will be done by them to retain the job and of course attritional tendencies will be reduced. Corroborating this view, Pigors and Myers (2012) maintained that advancement on the job will result to an increased income and everything an increased income can buy. The authors also stated that an increase in income as a result of advancement in the job can enhance status and prestige both within the organization and in the society at large. In the work of (Nwagwu, 2008), the author maintained that the morale of teachers who are promoted is normally higher than that of those who are not promoted. The author added that those who receive promotion when they are not expecting it are normally more rewarded than those who expect it. On the other hand, if management fails to promote who desired and merited promotion, it will result to low level of job satisfaction and lack of retention on the job.

Promotion can be seen as an energetic motivator that can affect the teacher to stay or leave the job. A research conducted by Udo (2012) revealed that regular promotion significantly influences students' academic performance. Similarly, Jones (2016) found that

there is a significant relationship between teacher promotion and students' academic performance. Hodgetts and Attman (2015) maintained that employees who get their promotions on seniority bases are not adequately motivated because they are not getting the promotion based on hard work. There is actually no reward for extra effort. The authors also stated that in the public school system, when is it time to promote teachers, every other teacher is promoted regardless of whether you are hard working or not. The authors went further to observe that teachers who do the best work do not get the fastest promotion. Rather, the time the hard working ones get their promotion, the lazy ones also get theirs. This may make the teachers involved to be so disgruntled with the job and may want to pull out of the system, thereby causing attrition. But if promotion is based on hard work, teachers will work very hard to earn their promotions. Most of them will go an extra mile in order to impress their superiors so they can be promoted. When promotion eventually takes place, there will be satisfied with the job and will want to retain it (Altman, 2012).

### **Regular payment of Salary and Students' Academic Performance**

Regular payment of teachers' salary as at when due can make teaching profession really attractive. It can be the best way of stimulating both the interest of those in it and those who wish to take teaching as their profession (Egbe, 2014). Regular payment of teachers' salary can be the only incentive that can enhance teachers' productivity. In the country, it is the tool that can be used to improve teachers' performance. According to Omebe (2010), motivation consists of tangible things such as bonus payment and regular promotion which may of course mean a raise in salary, leading to attainment of personal intangible altitudes such as recognition, prestige, power, and so on. Regular payment of teacher salaries provides a spur or zeal in the teachers for better performance.

According to Trase and Lanry (2012), money (salary or pay) has been recognized as chief source of satisfying the needs of workers, therefore money does not only satisfy psychological needs but also the security and socials needs. Hence, in many factories and organizations, various wages plans and business schemes are introduced to motivate and stimulate the workers to work. According to Joshua (2008), regular payment of teachers' salaries motivates them to work harder, thereby increasing productivity and efficiency. Ubom (2013) found that there is a significant relationship between regular payment of teachers' salaries and students' academic performance. Similarly, Ekpenyong (2016) found that there is a significant influence of regular payment of teachers' salaries on students' performance.

Teachers need to be well paid, they need to be promoted as at when due, their welfare has to be taken care of. A teacher who is happy will definitely be ready to impart knowledge to the students while a teacher who is not happy will do otherwise. A motivated teacher strives to put effort together in the classroom so as to affect the students positively. Thus, teacher motivation is a push, a propellant or a force that activates a teacher to teach. This implies that when a teacher is highly motivated especially in monetary aspect, it affects the students positively.

### **Empirical Studies**

Ocho (2012) conducted a study on the influence of motivational variables on students' academic performance amongst Secondary School teachers in Uyo Local Government Area, Akwa Ibom State. In order to achieve this, three hypotheses were formulated and tested at 0.05 alpha level. The design adopted for the study was the survey study. The sample for the study consisted of all the biology teachers randomly selected from public Secondary Schools in Uyo Local Government Area of Akwa Ibom State. The sample was selected using stratified and simple random sampling techniques. The instrument used for this study was an adapted 15 items, 4-option rating scale questionnaire. The instrument was subjected to reliability measure using test- retest method which gave an index of 0.68 to 0.82. The data collected were subjected to statistical analysis using independent t-test. The results obtained amongst others, revealed that good condition of service significantly influence student academic performance among Secondary School teachers in public Secondary Schools. Like the work of Ocho (2012), the present study seeks to investigate the influence of teachers' motivation on students' academic performance in Secondary Schools. However, the present study is specifically focused on students' performance in Mathematics. Moreover, Ocho's study was conducted in Uyo LGA of Akwa Ibom State which is outside the geographical scope of the present study.

Vincent (2010) conducted a study to examine the effect of teachers' good condition of service on students' academic performance amongst Secondary School teachers' in Akpabuyo Local Government Area, Cross River State. In order to achieve this, two hypotheses were formulated and tested at 0.05 alpha level. The design adopted for the study was the ex-post facto. The sample for the study consisted of 120 teachers randomly selected in Akpabuyo Local Government Area, Cross River State. The sample was selected using stratified and simple random sampling techniques. The instrument used for this study was an adapted 20 items, 4- option rating scale questionnaire. The data collected were subjected to statistical analysis using Chi-square. The results obtained amongst others, revealed that there is a significant effect of condition of service on academic performance amongst Secondary School students' in Akpabuyo Local Government Area, Cross River State. Like the work of Vincent (2010), one of the specific objectives of the present study is to investigate teachers' condition of service on students' academic performance in Secondary Schools. However, Vincent's work was conducted in Akpabuyo LGA of Cross River State which is outside the geographical scope of the present study. Additionally, the present study is specifically focused on students' performance in Mathematics.

Udo (2012) conducted a study on influence of motivational variables on students' academic performance in Biology in Enugu State. In order to achieve this, three hypotheses were formulated and tested at 0.05 alpha level. The design adopted for the study was the survey study. The sample for the study consisted of all the Biology teachers randomly selected from public Secondary Schools in Enugu State. The sample was selected using stratified and simple random sampling techniques. The instrument used for this study was an adapted 15 items, 4-option rating scale questionnaire. The instrument was subjected to reliability measure using test- retest method which gave an index of 0.68 to 0.82. The data collected were subjected to statistical analysis using independent t-test.

The results obtained amongst others, revealed that regular promotion significantly influence students' academic performance in public secondary schools. Like the work of Udo (2012), the present study seeks to investigate the influence of teachers' motivation on students' academic performance in Secondary Schools. However, Udo (2012) focused only on students' performance in Biology. Moreover, Udo's study was carried out in Enugu State which is outside the geographical scope of the present study.

Ubo (2013) conducted a research on teacher motivation and students' academic performance in Secondary Schools in Okobo Local Government Area of Akwa Ibom State. The study adopted the survey research design. A sample of 100 teachers were randomly selected for study. The instrument for data collection was a structured questionnaire. The result of the analysis using Chi-square reveals that amongst other variable, there is a significant relationship between regular payment of teachers' salaries and students' academic performance in Okobo Local Government Area. These was recommended amongst others that Government and Private firms should pay teacher salaries, wages, all allowances and many other entitlements when dues. This will provide a spur or zeal in the teacher for better performance. Like the work of Ubom (2013), the present study seeks to investigate the influence of teachers' motivation on students' academic performance in Secondary Schools. However, Ubom's study was conducted in Akwa Ibom State which is outside the geographical Scope of the present study. Moreover, the present study is specifically focused on academic performance of Mathematics students.

From the reviews of empirical studies, it was realized that most of the literature did not capture the variables under study such as academic performance in mathematics. Also during the review there was dearth (lack) of literature on the core components of the topic under study in the environment where this study was conducted. It is therefore apt to say that literature were not available in the study area which justifies the need for the current study. It is therefore, the desire of this study to carry out this research in Okpokwu Local Government Area of Benue State, Nigeria, so as to bridge the gap in knowledge in that area.

### **Purpose of the Study**

The main purpose of this study is to assess the influence of teachers' motivation on students' performance in mathematics in Secondary Schools in Okpokwu LGA of Benue State, Nigeria. The specific purposes are to:

- i. find out the influence of teachers' condition of service on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria.
- ii. find out the influence of teachers' upward job mobility (promotion) on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria.
- iii. find out the influence of teachers' regular payment of salaries on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria.

## **Research Questions**

The following research questions were raised to guide the study:

- i. What is the influence of teachers' condition of service on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?
- ii. What is the influence of teachers' upward job mobility (promotion) on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?
- iii. What is the influence of teachers' regular payment of salaries on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?

## **Methodology**

### **Design of the Study**

The study adopts the descriptive survey research design. This is because the study uses questionnaire to elicit responses from the respondents for data collection purposes.

### **Area of the Study**

The area of the study is Okpokwu Local Government Area of Benue State. Okpokwu is a Local Government Area of Benue State, Nigeria. Okpokwu Local Government Area was created in 1976 and takes its name from the Okpokwu stream. The Local Government Area is made up of Okpoga, Edumoga and Ichama districts with Okpoga as the headquarters. The local government area shares boundary with Otukpo, Ohimini, Ogbadibo and Ado Local Government Areas of Benue State; Olamaboro Local Government Area of Kogi State and Isi-Uzo Local Government Area of Enugu State. It has a population of 176,647 at the 2006 census. The vegetation of the local government is that of a transition between the deciduous rain forest of Eastern Nigeria on the Southern part of the local government, and the grassland Savannah towards the North.

### **Population of the Study**

The population for this study consisted of 5,074 SSII students in Senior Secondary Schools in Okpokwu LGA of Benue State, Nigeria. The population was considered appropriate because at this stage, it is believed that students are matured enough to understand teacher factors influencing their academic performance.

### **Sample and Sampling Technique**

The sample comprises 192 SSII students. This sample size is in accordance with the Taro Yamane formulae. Ten (10) Senior Secondary Schools were randomly selected for the purpose of data collection in this study. Random sampling technique was used because it gives each member of the population an equal chance of being selected.

### **Instrument for Data Collection**

The instrument used for data collection is a structured questionnaire designed by the researcher titled "Influence of Teachers' Motivation on Students' Performance

Questionnaire (ITMSPQ)". The questionnaire consists of four sections (A, B, C and D) and each section contains the items aimed at providing data used in answering the research questions in the study. Section A was a four-point Likert scale with 5 items, section B was also a four-point Likert scale with 5 items and section C was also a four points Likert scale and it had 5 items. The questionnaire was rated as follows: Strongly Agree (SA) = 4; Agree (A) = 3; Disagree (D) = 2; and Strongly Disagree (SD) = 1.

### Validation of the Instrument

The developed instrument was validated by two Mathematics Education experts, two mathematics teachers and one Measurement and Evaluation expert. The validators examined the suitability of the content and also ascertained the face validity of the instrument. Repeated items were expunged by the validators, their corrections and recommendations led to the development of the final copy of the instrument.

### Method of Data Collection

Along with a research assistant, the researchers distributed copies of the questionnaire to the respondents. The questionnaires were administered to the respondents and collected back after responding for analysis.

### Method of Data Analysis

Data collected was analyzed using descriptive statistics of frequency and mean to answer the research questions. A mean of 2.50 would be used as a cut-off mark for decision making in the study. Hence, an overall mean of 2.50 and above was considered agreed, while below 2.50 was considered disagreed.

## Results

The data were collected from the collected from 192 SSII in Okpokwu Local Government Area of Benue State, Nigeria and presented according to the research question.

### Research Question One

What is the influence of teachers' condition of service on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?

**Table 1: Descriptive analysis of the influence of teachers' condition of service on students' performance in mathematics**

S/NO	Influence of Teachers' Condition of Service on Students' Performance	Mean	STD	Remark
1	Provision of instructional materials for teachers will enhance their teaching effectiveness thereby improving students' performance	2.72	0.85	AGREE
2	Adequate provision of furniture for students will create a conducive environment for teaching thereby improving students' academic performance	2.92	0.85	AGREE

3	Provision of infrastructural facilities in school will enable teachers to work towards better performance of students	2.99	0.73	AGREE
4	Allocation of proper workload to teachers enables adequate content coverage thus, improving students' performance	3.26	0.57	AGREE
5	In-service training for teachers will increase their effectiveness thereby, improving students' performance	3.26	0.69	AGREE
<b>Cluster Mean</b>		<b>3.03</b>		<b>AGREE</b>

Table 1 shows the analysis of the influence of teachers' condition of service on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria. As shown in the table, the cluster mean of 3.03, is greater than the benchmark mean of 2.50. This implies that the students in this study area have high agreement with the listed items that presented teachers' conditions of service. Teachers' condition of service has influence on the students' performance in mathematics.

#### **Research Question Two**

What is the influence of teachers' upward job mobility (promotion) on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?

**Table 2: Analysis of the influence of teachers' upward job mobility (promotion) on students' performance in mathematics**

<b>S/NO</b>	<b>Influence of Teachers' Upward Job Mobility (Promotion) on Students' Performance</b>	<b>Mean</b>	<b>STD</b>	<b>REMARK</b>
1	Regular promotion of teachers will encourage them to put in more efforts toward improving students' performance	3.09	0.85	AGREE
2	Regular promotion of teachers will motivate them to develop passion for the job thus, improving students' performance	3.08	0.68	AGREE
3	Teachers' upward job mobility increases their productivity hence, improving students' performance	2.96	0.93	AGREE
4	Regular promotion of teachers will make them happy, committed and dedicated to their job thereby improving students' performance	3.01	0.90	AGREE
5	Teachers' upward job mobility makes them stay longer in the teaching Job thereby improving students' performance	2.94	0.94	AGREE
<b>Cluster Mean</b>		<b>3.02</b>		<b>AGREE</b>

Table 2 shows the analysis of the influence of teachers' upward job mobility (promotion) on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria. The table showed the cluster mean of 3.02 indicating that the students in study highly agreed with listed items of influence of teachers' upward job mobility (promotion) on students' performance in mathematics. This implies that teachers' promotion encourage them to deliver well which will improve students' understanding of mathematics and boost their performance.

### Research Question Three

What is the influence of teachers' regular payment of salaries on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria?

**Table 3: Analysis of the influence of teachers' regular payment of salaries on students' performance in mathematics**

S/NO	Influence of Teachers' Regular Payment of Salaries on Students' Performance	Mean	STD	REMARK
1	Regular payment of teachers' salaries makes them focus on the teaching job and work towards students' success	3.02	0.73	AGREE
2	Regular payment of teacher salaries provides a spur or zeal in the teachers for better performance thereby improving students' performance	3.07	0.77	AGREE
3	Regular payment of teachers' salaries eliminates industrial actions like strike thereby improving students' performance	3.15	0.62	AGREE
4	Regular payment of teachers' salaries brings about happiness as well as readiness to impart knowledge to the students thus, improving their performance	3.04	0.74	AGREE
5	Prompt and regular payment of teachers' salaries will motivate the teachers to direct their efforts towards students' success in the classroom	2.98	0.67	AGREE
<b>Cluster Mean</b>		<b>3.05</b>		<b>AGREE</b>

From the result in Table 3, teachers' regular payment of salaries influences students' performance in mathematics as the students in the study area have high opinion of the listed items for influence of teachers' regular payment of salaries on students' performance in mathematics in Secondary Schools in Okpokwu LGA, Benue State, Nigeria (cluster mean = 3.05). This finding is based on the fact that the general opinion of the students agreed to the items as exhibited by the clusters mean of 3.05.

## **Discussion of Findings**

The analysis of research question one presented in table 1 reveals the high agreement of the students with the listed items that explore teachers' conditions of service. This makes the items appropriate usage in the quest to determine the influence of teachers' condition of service on students' performance in mathematics. The indication of this is that putting these items to check will positively influence the performance of the students in mathematics. This finding is in connection with study of Ocho (2012) who found out that good condition of service significantly influence student academic performance among Secondary School teachers in public Secondary Schools. And also the finding linked to the study of Vincent (2010) who conducted a study to examine the effect of teachers' good condition of service on students' academic performance amongst Secondary School teachers' in Akpabuyo Local Government Area, Cross River State which the result revealed that there is a significant effect of condition of service on academic performance among Secondary School students.

Research question two analysis reveals that students highly agreed with listed items of influence of teachers' upward job mobility (promotion) on students' performance in mathematics. This implies the level in which job mobility of the teachers influence the performance of the students in this study area as shown in the students mean respond in table 2. Putting this items into action will enhance the students' performance in mathematics which is the prayer point of many schools. To point out more of this fact is the study of Udo (2012) conducted on the influence of motivational variables on students' academic performance in Biology in Enugu State which the results obtained amongst others, revealed that regular promotion significantly influence students' academic performance in public secondary schools.

The result of table 3 (analysis of research question three) showed that the students in this study area have high opinion of the items for the influence of teachers' regular payment of salaries on students' performance in mathematics in Secondary Schools in Okpoku LGA, Benue State. Regular payment of teacher salaries create zeal, focus, motivation, readiness to impact in the teachers for better performance, thereby improve students' performance was the opinion of the students. This means that regular payment of teachers' salaries will make them proficiently render their services without fear of been enslave as a result of nonpayment of salaries and in return enhance the performance of the students. Ubo (2013) conducted a research on teacher motivation and students' academic performance in Secondary Schools in Okobo Local Government Area of Akwa Ibom State. It was recommended by Ubo amongst others that Government and Private firms should pay teacher salaries, wages, all allowances and many other entitlements when dues. Teachers' payment of salaries not only make them ready to impact, it also help them to extrinsically motivate the mathematics students by giving awards and material appreciation to students is doing well in mathematics.

## **Conclusion**

Based on the study, the conclusion is drawn that teachers' motivation which include teachers' condition of service, teachers' upward job mobility (promotion) and teachers'

regular payment of salaries influence students' performance in mathematics. Students will get the best from their mathematics teachers only if the teachers are motivated.

## Recommendations

Based on the findings, the following recommendations were made:

- i. For proficient delivery of mathematics knowledge, secondary school proprietors, most especially those within the study area should take the issue of teachers' motivation seriously by paying their salaries when due, providing the appropriate resources needed for delivery of mathematics knowledge and assign appropriate workload in order not to overload them.
- ii. The Ministry of Education should regularly assess teacher's file and grant promotion to teachers when due according to their qualification, dedication and workload.
- iii. School authority should regularly create means for teachers' In-service training such as seminars and orientation section that will help the teachers get more acquainted with job description and resource.

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