

Biology Teachers' Status of Motivation in Secondary
Schools in Bosso Local Government Area of Niger State,
Nigeria

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Abstract

The Significance of motivation to productivity among workers in institutions of learning can never be over emphasized. In response to the outcry of poor performance of students in final examinations over the years, researchers have been working rigorously to arrest the epidemic. The aim of this study was to investigate the status of motivation of science teachers particularly Biology teachers in secondary schools in Bosso Local Government Area of Niger State. A descriptive survey design was used. A simple random sampling technique was used to select 10 schools out of 24 schools. A total of 20 Biology teachers participated in the study. The instrument for data collection was Teachers Motivation Questionnaire (TMQ) developed by the researchers. Four research questions were formulated to guide the study. Data were analyzed by the use of frequency and percentage. Findings revealed that average of 71% of the teachers were not motivated with remuneration/benefits while 68% were not motivated with accommodation, 64% were not motivated with employer relationship and 90% were not motivated with teaching environment. Among others, it was recommended that remuneration/benefits should be improved and that teaching environment should be made more conducive for teachers to enhance effective teaching and learning activities.

increase girls participation in that area.

Conclusion

Motivation of students in learning is greatly influenced by teaching strategy used. The result of the study provides empirical evidence that the use of textbook illustration with feedback improves students' motivation scores. The study also revealed that there is no significant difference in the motivation of male and female students in the use of textbook illustration with feedback. Both male and female students performed well when taught appropriately.

Recommendations

Based on the findings of the study, the following recommendations are made

1. Biology teachers should be encouraged to use textbook illustrations with feedback in the delivery of their lessons.
2. Government should assist in the provision of adequate and appropriate textbooks.

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of the day. Both showed a similar connection between what we do and why we do it (Lahey, 2003).

Motivation can be divided into two different forms known as intrinsic (internal) and extrinsic (external) motivation. Intrinsic motivation has been studied since the early 1970s. It is the self-desire to seek out new things and new challenges to analyze one's capacity to observe and gain knowledge. It is driven by an interest or enjoyment in the task itself, and exists within the individual rather than relying on external pressures or desire for reward. Teachers who are intrinsically motivated are more likely to engage in the task willingly as well as work to improve their skills which will increase their capabilities.

Extrinsic motivation refers to the performance of an activity in order to attain a desired outcome and it is the opposite of intrinsic motivation. Extrinsic motivation comes from influences outside the individual, usually extrinsic motivation is used to attain outcomes that a person wouldn't get from intrinsic motivation. Common extrinsic motivation are rewards (for example money or grade).

Teachers are expected to render a very high job performance. The Ministry of Education is always curious regarding the job performance of its teachers. Also, the Ministry of Education demands a very high measure of loyalty, patriotism, dedication, hard work and commitment from its teachers (Ubom & Joshua, 2004). Similarly, the roles and contexts of education's motivational methods and tools cannot be underemphasized because high motivation enhances productivity which is naturally in the interests of all educational systems (Ololube, 2004, 2005).

Statement of the Problem

Over the years, students' performance in WASSCE and NECO SSCE have been unsatisfactory (Chief Examiners' report, 2009-

2012). All hands of researchers are on deck in uprooting the causes, among which were attributed to poor teaching (Kareem, 2003). It is evident that achieving quality science and technology education depends largely on the effectiveness and efficiency of the science teacher in the secondary school. The poor performance in Biology examination remains constant over the years. Most of the studies have revealed several factors responsible for that including teachers' in-efficiency. To avert that, concentration is given to methods of teaching, instructional materials as to profound solution to the epidemic, but less attention was accorded to teachers' motivation which is vital for ensuring quality teaching. It is therefore, the intent of this study to investigate biology teachers' status of motivation in teaching secondary schools in Bosso local Government Area, Niger State. This is to have true picture of their working condition in their respective schools.

Aim and Objectives of the Study

The aim of the study was to investigate the status of Biology teachers' motivation in secondary schools in Bosso Local Government Area. Specifically, the following objectives were set to be achieved:

1. Biology teachers' status of motivation in terms of remuneration or benefits in their schools.
2. Biology teachers status of motivation in respect of their accommodation.
3. Biology teachers level of motivation on employer relationship/welfare.
4. Biology teachers' status of motivation on teaching environment/class.

Research Questions

This study sought answers to the following research questions:

1. What is the status of Biology teachers' motivation with regards to remuneration / benefits received in Bosso local government secondary schools?
2. What is the status of motivation of

Key words: Motivation, Biology, teaching and learning, performance

Introduction

Biology is a natural science that deals with the living world: how the world is structured, how it functions and what these functions are, how it develops, how living things came into existence, and how they interact with one another and with their environment (Umar, 2011). It is a prerequisite subject for many fields of learning that contributes immensely to the technological growth of the nation (Ahmed, 2008). This includes medicines, pharmacy, nursing, agriculture, forestry, biotechnology, and many other areas (Ahmed & Abimbola, 2011).

Biology is seen as one of the core subjects in Nigerian secondary school curriculum. Because of its importance, more students enrolled for Biology in the Senior School Certificate Examination (SSCE) than Physics and Chemistry (West African Examinations Council, 2011). Biology is introduced to students at senior secondary school level as a preparatory ground for human development,

where career abilities are groomed, and potentials and talents discovered and energized (Federal Republic of Nigeria, 2009). The quality and quantity of science education received by secondary school students are geared toward developing future scientists, technologists, engineers, and related professionals (Kareem, 2003).

Biological knowledge has played a very important role in the society. It has been used to solve problems of diseases and poor yields in agriculture by production of disease resistant and high yielding plants and animals; overpopulation through the development of hormone based contraceptives; protection and management of the environment (Maundu, Sambili & Muthwii, 2005; Campbell & Reece, 2002).

There are always poor performances among Biology students enrolling for SSCE exams every year for example performance in NECO examinations from 2009-2012 in Biology will be shown in the table below:

Table 1.1: Analysis of Students' Performance in NECO Examination from 2006-2012 in Biology.

Year	No. Enrolled	A-C6	D7-E8	F9
2009	890,866	212,190	178,303	440,245
2010	980,337	303,388	339,909	295,189
2011	1,082,262	515,331	114,489	394,518
2012	1,157,883	301,968	267,119	325,758

Source: Zonal Inspectorate of Education (ZIE) Minna, 2013

From the above table, the total number of students that had pass to fail grades (D7-F9) have been consistently greater than those with excellent to credit grades (A-C6) across the years.

Motivation is a common word used to translate satisfaction among individuals. Fuhrmann (2006) provides an additional component in his

definition, the arousal, direction, and persistence of behaviour. Motivation is a theoretical construct used to explain behavior, represent the reasons for a people's action, desires, and needs. A motive is what prompts the person to act in a certain way or at least develop an inclination for specific behavior. For example, teachers do their work in school perfectly because they want a reward at the end

Table 2: Analysis of Teachers Motivation with Accommodation

S/N	ITEMS	A	D	Remark
6	Teachers are staying in school quarters free without any payment	1(5%)	19(95%)	<i>Motivated</i>
7	Teachers are comfortable living in the school quarters as it so conducive	2(10%)	18(90%)	<i>Not motivated</i>
8	Teachers are fully secured in his/her residence	9(45%)	11(55)	<i>Not motivated</i>
9	Teachers' accommodation is not far from the school	10(50%)	10(50%)	<i>Neutral</i>
10	Teachers spend less in transporting to school	10(50)	10(50%)	<i>Neutral</i>
	<i>Average Percentage</i>	32%	68%	<i>Not motivated</i>

Table 2 reveals that only average of 32% showed satisfaction with their accommodation, but about average of 68% of teachers were not motivated by the status of their accommodation in schools.

Research Question Three: What is the status of Biology teachers' motivation with regards to the employer relationship?

Table 3: Analysis of teachers' motivation with employer relationship

S/N	ITEMS	A	D	Remark
11	Teachers have good rapport with school principal	11(55%)	9(45%)	<i>Motivated</i>
12	Teachers have good relationship with colleagues at school	13(65%)	7(35%)	<i>Motivated</i>
13	Teachers are always rewarded on excellent performance by their school authorities	3(15%)	17(85)	<i>Not motivated</i>
14	Teachers are always helped by employers in cases of urgent needs	2(10%)	18(90%)	<i>Not motivated</i>
	<i>Average Percentage</i>	36%	64%	<i>Not motivated</i>

Table 3 shows that only average of 36% of teachers showed contentment with the employer-employee relationship in the schools, leaving an average of 64% of their colleagues in dissatisfaction with the relationship. This indicates that Biology teachers are not

motivated with their employer relationship.

Research Question Four: What is the status of Biology teachers' motivation with regards to the teaching environment provided in Bosso local government secondary schools?

- 2 Biology teachers with regards to their accommodation?
3. What is the status of Biology teachers' motivation with regards to the employer relationship/welfare received?
 4. What is the status of Biology teachers' motivation with regards to the teaching environment provided?

Research Methodology

The research design was descriptive survey design. This type of design enables studying a large population within few period of time using questionnaires and interviews (Gay, Mills & Airasian, 2009). The population of the study covered all Biology teachers from the 24 public Senior Secondary Schools in Bosso Local Government Area of Niger State. 10 schools were randomly selected for the study. The samples comprised of all teachers in the ten selected schools who were 20 in numbers. This is because in a situation where the population is limited or are few, it is advisable to use the whole population (Gay, Mills & Airasian, 2009). Teachers Motivation Questionnaire (TMQ) developed by the researchers was used to assess

Biology teachers' motivation in teaching. TMQ has 22 items with four scales which are motivation on remuneration/benefits, accommodation, employer relationship/welfare and motivation on teaching environment. It has five rating scales usually Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree. The instrument was validated by three experts from Science Education Department, Federal University of Technology, Minna. The reliability of the instrument was established using internal consistency method, Cronbach alpha was used and eventually, 0.78 coefficient was obtained. The researchers personally administered the research instrument to the respondents in their various schools within two weeks. The data were analyzed using Frequency and Percentage using Statistical Package for Social Science (SPSS) version 20.

Results

Research Question One: 1. What is the status of Biology teachers' motivation with regards to remuneration/benefits received?

Table 1: Analysis of teachers' motivation with remuneration/benefits

S/N	ITEMS	A	D	Remark
1	Teachers are given teaching allowances for teaching in addition to salary	1(5%)	19(95%)	<i>Not motivat</i>
2	Scholarship is given to teachers for further studies in m school	3(15%)	17(85%)	<i>Not motivat</i>
3	Teachers receive enough salary as expected of a civil servants	5(25%)	15(75%)	<i>Not motivat</i>
4	Teachers receive monthly salary regularly without delay	4(20%)	16(80%)	<i>Not motivat</i>
5	Teachers receive financial assistance from the school when ever needs arise	1(5%)	19(95%)	<i>Not motivat</i>
	<i>Average Percentage</i>	<i>29%</i>	<i>71%</i>	<i>Not motivat</i>

From table 1, it appears only 29% of the teacher were contented with remuneration in schools, leaving average of 71% not motivated, they were not satisfied with allowances, salaries, financial assistance scholarships given

in the schools.

Research Question Two: What is the status of motivation of Biology teachers with regards to their accommodation?

relationship is poor, there is every tendency of daily crises in schools, which consequently distorts effective teaching and learning activities in schools. Unfortunately, too high proportion of school managers (principals and head teachers) are reported to be highhanded and autocratic in their dealings with teachers particularly in Nigeria (Ayeni, 2005).

Moreover the results showed that 10% of teachers manifested satisfaction with their teaching environments. Whereas average of 90% of Biology teachers were not satisfied with the nature of the teaching environment in the schools. This included classroom population, facilities, instructional materials, periods of lessons and students behaviours. Dinah (2013) concluded that, availability of text books, laboratory apparatus and other learning resources contribute significantly to the performance of students in Biology examination. Albert, Osman and Yungungu (2014) attached the problem with inadequate supply of teaching and learning resources such as chemicals, charts, apparatus, models, local specimens, laboratories, textbooks, and libraries led to poor performance in Biology. As crucial as teaching facilities are to effective teaching and learning, it appears that most of the teachers bitterly responded on their satisfaction in that regard. Almost 90% of them showed no motivation in terms of these facilities. Teaching and learning activities can never be effective in the absence or inadequacy of such facilities in schools.

Conclusion

Teachers have the biggest role to play as far as curriculum implementation is concerned. This study is an indication that majority of teachers are not extrinsically motivated in schools which consequently influences their productivity, thereby affecting students' performance. If teachers are not well taken care of in schools, their productivity can never be satisfactory. This in turn could hinder students' performance in

secondary schools, especially at their final examinations.

Recommendations

From the findings of this study, the following recommendations were given:

1. Biology teachers' salaries and other financial benefits should be improved upon so as to enhance their standard of living.
2. Government should provide enough, affordable and conducive accommodation for teachers which will go along way to make them concentrate in their responsibilities
3. School administrators such as directors and principals should ensure cordial and positive relationship with teachers which will enhance working atmosphere for the two parties
4. Classrooms, offices, laboratories, and libraries should be constructed or refurbished and fully maintained by the authorities in order to facilitate conducive teaching and learning atmosphere.

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Table 4.4: Analysis of Teachers' Motivation with Teaching Environment

S/N	ITEMS	A	D	Remark
15	Classes are not overcrowded by students	1(5%)	19(95%)	<i>Not motivated</i>
16	Teachers teach in normal class size in schools	2(10%)	18(90%)	<i>Not motivated</i>
17	Teachers are comfortable with the lessons and periods allocated for teaching	3(15%)	17(85%)	<i>Not motivated</i>
18	Teachers have updated and enough instructional materials for teaching biology	0(0%)	20(100%)	<i>Not motivated</i>
19	Students responses always motivating in the class	5(25%)	15(75%)	<i>Not motivated</i>
20	There is constant electric supply in classes	0(0%)	20(100)	<i>Not motivated</i>
21	Laboratories are well equipped and conducive for practicals in schools	2(10%)	18(90%),	<i>Not motivated</i>
22	There are Comfortable and adequate tables and chairs in classes	4(15%)	16(80%)	<i>Not motivated</i>
	Total Percentage Average	10%	90%	<i>Not motivated</i>

From Table 4, it can be seen that only average of 10% of teachers showed satisfaction with teaching environment in schools. Whereas, average of 90% of Biology teachers were not satisfied with the nature of the teaching environment in the schools. This included classroom population, facilities, instructional materials, periods of lessons and students behaviours.

Discussion of Results

The study investigates teachers' motivation in secondary schools in Bosso Local Government, Minna. From the results, table 1 answered the first research question which revealed that 29% of the teachers were contented with remuneration in schools, leaving average of 71% not motivated, they were not satisfied with allowances, salaries, financial assistance scholarships given in the schools. This goes contrary to Ayeni (2005) and Ubom (2002) who posit that in Nigeria, prompt payment of salaries induced greater commitment to teaching. It also corroborates the findings of Frederickson (2004) who re-emphasized the importance of motivating teachers on their jobs using a study conducted by the Voluntary Service Overseas (VSO) in 2002, whose research report findings pointed out that teachers' motivation was fragile and declining

mostly in the developing countries including Nigeria. This could have been one of the factors eroding the quality of teaching in our schools over the years, which as a result, hinders the students' performance in final examinations in secondary schools in Nigeria.

It was also revealed that only average of 32% showed satisfaction with their accommodation, but about average of 68% of teachers were not motivated by the status of their accommodation in schools. This also deviates from the opinion of Etuk (2002) who stated that teachers are expected to earn both intrinsic and extrinsic reward from work and if teachers' pay, working conditions and accommodation given to teachers are judged to be good by the teachers, they will put in more effort at work. This will automatically influence teaching in schools, hopefully, improving students' performance that has been declining for along time.

The findings further indicated that only average of 36% of teachers showed contentment with the employer-employee relationship in the schools, leaving an average of 64% of their colleagues in dissatisfaction with the relationship. This indicates that Biology teachers are not motivated with their employer relationship. This is alarming, because if employer-employee