

THE IMPACT OF ECONOMIC CRISIS ON BIOLOGY CURRICULUM DELIVERY IN DELTA STATE COLLEGE OF PHYSICAL EDUCATION, MOSOGAR, NIGERIA

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ABSTRACT

The study which adopted survey design examined the impact of economic crisis on biology curriculum delivery in Delta State College of Physical Education Mosogar. The population of the study which was stratified into three comprises bursary staff, biology department staff and the students in the biology department. Random sampling technique was used to select ten staff from the bursary and biology departments while fifty students were selected from the biology department. The instrument used for data collection was questionnaire which sought to find out if the current economic crisis has affected the rate of government allocation and the ways this has affected the biology curriculum delivery. A four point modified likert-type scale was used to score the items on the questionnaire. The data generated from the questionnaire were analysed using percentage. The findings revealed that the current economic crisis has led to a drop in government allocation to the college and this has negatively affected the biology curriculum delivery. It was concluded that government and biology teachers should diversify their revenue base and be prudent in spending their hard earned allocation and income. Consequently, it was recommended that rational attempt should be made by key players in the biology department of the college to maximize whatever is allocated to them by the government as well as embrace improvisation where and when necessary.

Keywords: *Economic crisis, Biology, curriculum, Physical Education, Mosogar*

INTRODUCTION

The economic crisis ravaging the global economy is naturally a serious challenge to educators and investors all over the world (Onafowokan, 2008). Adams (2008) says the world economy is facing the most severe financial crisis since the great depression of the last century. The global economic crisis started in the United States late 2008 and has since become a major concern for political leaders around the globe as its impact has gone beyond the borders of the United States. This is because world economies are interlinked through international financial institutions and transactions (Nwakonolor and Igboabuchi, 2010). The term economic crisis can be defined as a situation where there is a recession in nation's economic activities, a situation where the world's economy seems to be standing on its head (Kumuyi 2010). According to Eichengreen and Portes in Oyesola (2010) economic and financial crisis is defined as a sharp change in asset prices that leads to distress among financial

market participants. The educational system is almost completely dependent on government budgetary allocation and with the economic crisis; the sector will no doubt witness its fair share of budget cuts which will affect not only the biology curriculum but also its expansion.

Biology is one of the basic sciences whose teaching and learning are universally known to be efficient and successful if only they are undertaken simultaneously with the help of adequate instructional materials and facilities. Biology plays a vital role in the economic development of the nation. Nwakonobi (2008) says that recent advances recorded in the field of biochemistry, physiology, ecology, genetics and molecular biology have made the subject a central focus in most human activities including solutions to the problems of food scarcity, pollution, population explosion, radiation disease, health, hygiene, conservation of natural resources, family life, various social vices as well as biotechnology and ethics. Due to the immense benefits of the subject (biology), the federal government of Nigeria made biology a core science subject for the Senior Secondary Schools (SSS) (NPE, 2004). The cardinal objectives are to prepare students to acquire:

- (a) Adequate laboratory and field skills in biology
- (b) Meaningful and relevant knowledge in biology
- (c) Ability to apply scientific knowledge to every day life in matters of personal and community health and agriculture
- (d) Reasonable functional scientific attitudes

Since the teaching and learning of science especially biology curriculum delivery requires higher funding, the budget cuts brought about by the economic crisis will in turn affect biology curriculum delivery and the teaching of science generally. The aim of this study therefore is to determine the impact of the current economic crisis on biology curriculum delivery in Delta State College of Physical Education Mosogar. To direct the course of this study the following research question were formulated

- H₀1. Does the drop in government allocation (Subvention) due to the current economic crisis result in a drop in government allocation to Delta State College of Physical Education Mosogar thereby affecting effective biology curriculum delivery?

METHODOLOGY

The study adopted the survey design. The population of the study which was stratified into three consists of staff from bursary department, biology department and students in the biology department. In all, ten staff from the bursary and biology department and fifty students from the biology department of the college were randomly sampled. The research instrument used for the study was a questionnaire developed by the researcher and administered to the respondents to find out the impact of economic crisis on biology curriculum delivery. out of the fifty copies of questionnaire administered to students forty were completely filled and returned.

A modified four point Likert type scale was used to score the items of the questionnaire. The ratings of the responses were strongly agree = 4; agree = 3; disagree = 2; and strongly disagree = 1. Four experts from the school of sciences and biology department of the college validated the instrument. The experts after examining the instrument made some corrections in precision of items and ambiguity of statements. These corrections were effected in the final draft of the instrument. The data collected were analysed using frequency counts and simple percentage.

RESULTS AND DISCUSSION

The findings of the study as presented on table 1 indicates that the economic crisis has drastically affected the rate of government allocation to the college and the biology department. 80% of the bursary and biology department strongly agreed while 80% of the respondents from the student in the biology department also attested that allocation from the government has dropped and as a result, it has affected the purchase of materials, equipment and the employment of personnel needed for effective biology curriculum delivery. This is in agreement with Ochu (2010) who he stated that lack of funds stands out as the number one problem in the teaching and learning of core science subjects. Adikwu (2008) counsels that in view of the fact that the sources of revenue of most schools have drastically reduced in this economic crisis, an attempt should be made to maximize whatever has been given. In another view Opateye (2010) stresses that due to global economic crisis, the high prices of teaching equipment and materials make them out of reach to most schools in view of the high rate of foreign exchange brought about by unfavourable economic situations.

Many of the respondents from the bursary and biology departments agreed that there is a drop in government allocation which is due to economic crisis and it has affected the release of grant, payment of allowances to biology teachers, purchase of books, subscription for journals needed for effective curriculum delivery, staff training through workshops, conferences and seminar as well as the rate of renovation of dilapidated buildings. Leghara and Mbah (2010) lamented that this downturn in funding of schools and colleges has complicated matters. The rate of unemployment in Nigeria is embarrassing, the pace of scientific and technological development is slowed down, the improvement and solution on environmental problems for the use and convenience of man becomes elusive. All these points to the economic crisis in the nation which needs to be salvaged.

Another major finding of this study is that teachers are not motivated to be effective in their task of effective biology curriculum delivery. This finding is in agreement with Nzelum and Okafor (2010). They express that many teachers due to lack of motivation and prompt payment of salaries and other allowances cannot meet their daily needs due to high cost of living brought about by economic crisis. These conditions bring about divided attention and poor concentration on the teaching job thereby reducing their output. Some even become unnecessarily harsh to students

and would not take time to give proper explanation on any concept taught, as students loose interest in class activities thereby affecting the impartation of such knowledge. Adikwu (2008) maintains that if teachers are motivated enough, they will put in their best and find a way to obtain materials necessary to teach.

Also, the table showed clearly that all the respondents: bursary department, biology department and students of the biology department were of the consensus that all the existing mechanisms used for biology teaching was inadequate due to the financial crisis. This finding is in line with the view of Nwagbo (2008), who observes that the problem of effective biology teaching is due to lack of equipment and materials, large class size, use of inappropriate teaching methods and lack of students' interest.

Table 1: (Research Question 1) Does the drop in government allocation (Subvention) due to the current economic crisis result in a drop in government allocation to Delta State College of Physical Education Mosogar thereby affecting effective biology curriculum delivery?

Variables	SA	A	D	SD
Due to the economic crisis, the college thus experienced a drop in government allocation	40 80%	10 20%	- -	- -
The drop affects the purchase of material, and equipment for effective biology curriculum delivery	42 84%	6 12%	2 4%	- -
Payment of allowances to biology teachers has been affected due to the economic down turn	35 70%	5 10%	7 14%	3 6%
Purchase of books, subscription for journals needed for effective curriculum delivery has been affected with the drop in government allocation	40 80%	5 20%	5 20%	- -
The drop has affected the regular servicing and maintenance of biology equipment	30 60%	10 20%	5 10%	5 10%
The drop has affected staff training through workshops, conferences and seminars	32 64%	12 24%	4 8%	2 4%
Grant to schools and department has been affected	40 80%	10 20%	- -	- -
The drop has affected the employment of renovation of dilapidated buildings and the construction of new ones	30 60%	8 16%	8 16%	4 8%
The drop has affected the rate of employing innovative teaching methods known to be effective in biology curriculum due to cost intensiveness.	30 60%	8 16%	8 16%	4 8%
The drop has affected the supply of qualified biology teachers and other personnel needed for effective biology curriculum delivery	35 70%	5 10%	3 6%	7 14%
Lack of students interest due to poor teaching methods adopted by teachers for effective biology curriculum delivery	25 50%	15 30%	4 8%	6 12%
The drop has affected the provision of biology laboratory, equipment and engagement in practical	30 60%	10 20%	6 12%	4 8%
Lack of training and retraining of biology teachers due to drop of government allocation of funds	28 56%	12 24%	8 16%	2 4%
Teachers are not motivated to be effective in their task of effective biology curriculum delivery	30 60%	10 20%	5 10%	5 10%
Budgetary allocation to education is not encouraging hence biology curriculum delivery is stifled	35 70%	5 10%	3 6%	7 14%

The drop has affected the release of research grant to biology teachers to boost their research work	30 60%	10 20%	10 20%	- -
Inability of biology teachers to cope with class size since there are not enough manpower and classrooms	15 30%	20 40%	7 14%	8 16%
Funding of education by both the federal and state government is no longer adequate	30 60%	20 40%	- -	- -
The drop makes students engage in group work during practical due to insufficient materials	30 60%	10 20%	10 20%	- -
The drop has affected the supply of adequate biology teaching equipment to schools	25 50%	15 30%	5 10%	5 10%
The drop has affected salaries of biology teachers with adverse effect on biology curriculum delivery	20 40%	20 40%	5 10%	5 10%
Lack of interest by the government to promote biology education	15 30%	25 50%	8 16%	2 4%

CONCLUSION AND RECOMMENDATIONS

This work examines the impact of economic crisis on biology curriculum delivery. Economic crisis has affected all aspects of life including education. Education which is the bedrock of development ought not to be treated casually by its major stakeholders especially teachers who are the key implementors of educational policies.

From the findings, it is obvious to state that the current economic crisis has led to a drop in government allocation to the college and this has negatively affected the biology curriculum delivery. To overcome this financial embarrassment, government and biology teachers should diversify their revenue base and also be prudent in spending their hard earned allocation and income. Therefore while biology curriculum delivery should be made adequate through provision of basic operational tools and timely staff motivation, there has to be frugal use of available resources meant for the biology department of our schools in this era of economic instability. Based on the above, the following recommendations were made:

1. There is need for diversification of the revenue sources of Nigeria through improvement in agriculture, solid minerals and tourism sectors of the economy
2. Biology teachers should resort to improvisation of some biology teaching aid and equipment
3. Rational attempt should be made by key players in the biology department of the college to maximize whatever is allocated to them by the government as well as embrace improvisation where and when necessary.
4. Students should be engaged in various scientific activities including participation in improvisation of teaching aids
5. Government should provide the necessary funds to cushion the effects of the crisis
6. All stakeholders (public and private) should contribute their quota towards providing enabling environment for biology curriculum delivery.

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