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EDITORIAL

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The present edition presents articles related to the theory and practice of History Education, Language Education, Mathematics Education, Science Education, and Educational Technology.

The Journal continues to welcome articles from contributors with a Promise that our high standard will not only be sustained, but also always improved upon.

Professor AGAS Oladosu
Editor-in-Chief

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**PHYSICS ENROLMENT PATTERN IN
NIGERIAN COLLEGES OF EDUCATION:
A CASE STUDY OF THE KWARA STATE COLLEGE OF EDUCATION, ILORIN**

BY

AKANBI, Abdul-Rasaq Oladimeji

Abstract

This paper focuses on the students' low enrolment in science subjects (Physics, Chemistry and Biology). All NCE students that graduated between 1994-2004 were used as the sample for the study. A researcher-designed proforma was used to collect relevant data on students' enrolment in the three science subjects for the years 1994-2004. frequency counts and percentages were used to analyze the data collected. Chi-square statistic was used to test the hypothesis formulated. It was revealed that there was significant, difference in the enrolment of students in physics, chemistry and biology in Kwara State College of Education, Ilorin between 1994 and 2004. Physics has minimum enrolment compared with chemistry and biology. It is recommended that the college authority should assist in the counseling of students on academic programmes, careers, and prospects for prospective physics students.

Introduction

The importance of physics as a requirement for technological development cannot be overemphasized. The National Policy on Education (NPE, 2004) stressed the need for teaching and learning of science subjects. Under secondary education, one of the broad aims of the NPE is to equip students to live effectively in this modern age of science and technology. The National Commission for College of Education (NCCE 2002) Stressed the need to have sound basic knowledge of physics concepts and principles to equip them for advanced studies in physics and physics-related courses. This is because of the importance of physics to human life. For instance, without a credit in physics, it is impossible for students to pursue medicine and engineering in the University. Despite its importance, it is plagued with low enrolment. The situation in higher institutions is even worse (see table 1). The problem of low enrolment has caused a scarcity of scientists in the field of physics as well as physics teachers in Nigerian educational institutions. The major factor among the causes identified to be responsible for low enrolment in physics in the schools include; very limited number of professionally trained teachers (Jimoh, 2000), Inadequate laboratory facilities (Opobiya, 1996), poor science background of students at the secondary school level (Omosewo, 1999). Some professional organization such as the science Teachers association of Nigeria Educational Research and Development Council (NEFDC) have put forward strategies for minimizing the problems. Some of the strategies suggested by such bodies include: Employment of qualified physics teachers to teach physics, incentives for the physics teachers, physics laboratory should be well equipped, relevant textbooks should be made available, prospective physics teachers should be made to offer physics courses that are relevant to ⁹ S. Curriculum, frequent seminars and

workshops should be organized for physics teachers among others.

It is therefore, not out of place if enrolment of students in physics is compared with enrolment in other science subjects, that is, chemistry and biology as well as total enrolment of students especially as in mathematics in order to have useful insight into the current enrolment status in physics.

Purpose of the study

The main purpose of this study was to determine the status of student enrolment in physics in Kwara State College of Education between 1994-2004 among other science subjects

Research Questions

The study attempted to provide answer to the research questions stated below:

1. What is the pattern of students' enrolment in physics, Chemistry and Biology between 1994-2004 in Kwara State College of Education, Ilorin?
2. Are there more students'

Methodology

The study was a descriptive survey type that compared the enrolment of students in physics with those in Chemistry and Biology in Kwara state College of Education, Ilorin between 1994-2004.

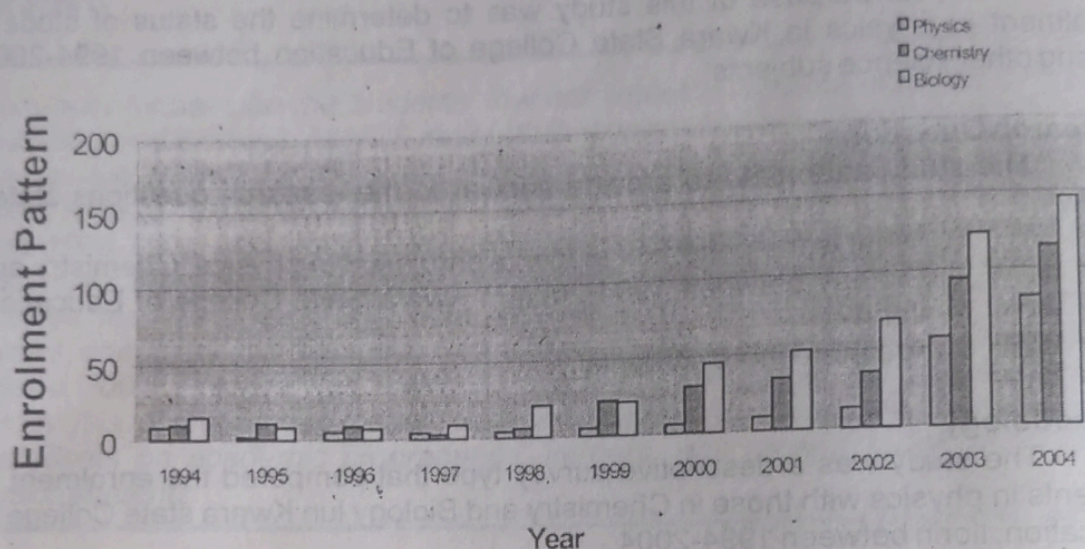
The population for the study consisted of all NCE students that graduated between 1994-2004 in College of Education, Ilorin in Physics, Chemistry and Biology. Virtually all students offering the science subjects were sampled for the study. The instrument used was a proforma in tabular form designed to collect students' enrolment in Physics, Chemistry and Biology between 1994-2004. The researcher personally visited the examination officers and the Head of each department for the collection of the relevant data.

RESULTS

Table 1: Students' Enrolment in NCE Physics, Chemistry and Biology between 1994-2004 in Kwara State

Year	Total Enrolment						Total Enrolment
	Physics	%	Chemistry	%	Biology	%	
1994	8	(24.2)	10	(30.3)	15	(45.5)	33
1995	2	(9.5)	11	(52.4)	8	(38.1)	21
1996	5	(23.8)	9	(42.9)	7	(33.3)	21
1997	4	(25)	3	(18.8)	9	(56.2)	16
1998	4	(12.9)	6	(19.3)	21	(67.8)	31
1999	4	(12.9)	6	(19.3)	21	(67.8)	31
2000	5	(10.0)	23	(46.0)	22	(44.0)	50
2001	5	(10.0)	23	(46.0)	22	(44.0)	50
2002	6	(7.3)	31	(37.8)	45	(54.9)	82
2003	6	(7.3)	31	(37.8)	45	(54.9)	82
2004	9	(9.6)	34	(36.1)	51	(58.5)	94
	9	(9.6)	34	(36.1)	51	(58.5)	94
	13	(11.0)	36	(30.5)	69	(58.5)	118
	13	(11.0)	36	(30.5)	69	(58.5)	118
	57	(20.3)	94	(34.3)	123	(44.9)	274
	57	(20.3)	94	(34.3)	123	(44.9)	274
	82	(23.9)	115	(33.5)	146	(42.6)	343
	82	(23.9)	115	(33.5)	146	(42.6)	343

The enrolment in physics dwindled over the years from 1994-2004. Through the eleven years, enrolment in physics was the lowest compared with biology and chemistry. Improvement in enrolment is observed from 2002 to 2004. This is encouraging, but this improvement is not adequate for a country like Nigeria that is seeking emancipation in science and technology. Physics is the bedrock of science and technology.



Students' Enrolment in NCE Physics, Chemistry and Biology between 1994-2004 in Kwara State

The histogram show in the graph explains the trend of the enrolment in the three science subject (physics, chemistry and biology) between 1994-2004.

Hypothesis

There is no Significant difference in student enrolment in Physics, Chemistry and Biology between 1994-2004.

Table 2: Chi-square on Enrolments in Physics, Chemistry and Biology between 1994-2004

Variable	No	X	d.f	X ² - cal	X ² critical ₁	Decision
Physics	195	17.72	20	44.563	36.996	Rejected
Chemistry	375	33.82				
Biology	516	46.91				

NB: Higher calculated values means that the hypothesis is rejected

Table 2 shows the enrolment in physics, chemistry and biology were computed for eleven consecutive years. The data collected were then subjected to chi-square χ^2 statistic. The mean $\bar{X}$ value of each subject was compared in which physics has the lowest mean value. There was significant difference among students enrolment in Physics, chemistry and biology between 1994-2004. the hypothesis is thus rejected.

Discussion

There was general increase in the science subjects each year, but the enrolment in physics lagged behind enrolments in chemistry and biology. Also, there was a significant difference in enrolment of students in physics, chemistry and biology in Kwara State College of education, Ilorin between 1994 and 2004. This finding supports those of (Opobiyi, 1996), but it negates the findings of Jimoh (2004).

This issues of enrolments of students in physics should be looked into by all and sundry, especially parents, teachers and curriculum planners.

Recommendations:

In view of the findings in this study, the following recommendations are made.

- (1) Kwara State Government should constantly liaise with the Kwara State Ministry of Education to organize seminars, workshops and conferences for students on the value and relevance of physics to individuals and national development.
2. Authority should assist in the orientation of student to various academic programmes, careers and job prospects for physics students after graduation.
3. Remedial courses should be organized for students without credit in physics so that they can read physical at the NCE level.

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