COMPARATIVE STUDY OF PHYSICS STUDENTS' ACADEMIC PERFORMANCE IN EKITI STATE

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Abstract

The study examined the comparative study of physics students' academic performance in private and public schools in both internal and external examinations in Ikere Ekiti Local Government area. Recently, most parents with moderate and high economic status do register their children with private schools. Even those who could not afford private schools wish to have their children in private school at all costs, which consequentially affects enrollment in public schools. This crave for private schools and the eventual exodus of public school students to private schools to write external examination makes the researcher to carry a comparative study of physics students academic performance in private and public schools in both internal and external examination in Ikere-Ekiti local government area of Ekiti state. This study found out whether students do perform better in internal exams than external exams, whether private secondary schools students do perform better than public schools students in Ekiti states and if they do, then what factors lead to their differences? The research design used was expo facto and this work was designed to compare physics students' academic performance in internal and external examinations in private and public schools in Ekiti State. The finding of this study revealed that there is a significant difference between public and private schools in external examination and also shown that the private school students performed better than the public school students in internal examination. It is therefore recommended that government at all levels should support the running of both public and private schools. More supervision should be done on the public schools to make teachers work better on the students. Retraining of the teachers in both school types to improve their physics instructional strategies should be the concern of all education stake-holders.

Introduction

Education is the basic pro of progress towards sensible change. It extends people's capacities to change their fantasies for society into reality. All countries try quality direction for their supportable change. At any preparation level, the nature of education depends on a couple of variables, for instance, school workplaces, teachers' ability, instructors' motivation, organization and association, e.t.c. An understudy's informative outcome and educational accomplishment is inconceivably influenced by the kind of school that they go to; class factors join; school structure, school association, and school atmosphere (Barry, 2006). The key concepts in this study are the nature of schools which is conceptualized in terms of two categories; public and private schools and the performance of students. Crosnoe, Johnson, and Elder (2004) suggested that school sector (private or public) and class size are two important structural compounds of schools, private school tends to have both better funding and smaller class sizes than public schools. The relative social class of a student body also affects academic achievement. Student from low socio economic backgrounds who attend poorly funded school do not perform as well as students from higher social classes (Eamon 2005).

The Federal Government of Nigeria has even come to the conclusion that there is a fall in the standard of education in Nigeria (NTA News, 2017). The senior secondary certificate examinations (SSCE) conducted by WAEC and NECO are taken by both private and public secondary school candidates in their final year of

secondary education. The performance of students in science subjects especially physics has not been encouraging (Kanno, 2000; Ajagun, 2001).

Today, there are many kinds of private schools in Nigeria. Highly costly schools for the rich, more affordable schools for the middle class and cheap private school that might run out of someone's house or some rented rooms for the poor. However Agbatogun (2009) and Olatoye (2009a, 2009b) reported that there is a significant difference between public and private school students' achievement in science

Statement of the Problem

Nigeria like some other developing nations in Africa has tried endeavors to give auxiliary training to its kin. The acquaintance of schools was normal with enhance scholastic execution by giving equivalent open doors for all students from all socio-social foundation. The introduction was on value and access for education to all youngsters. The government that is expected to improve academic performance by establishing many schools, yet, it has achieved only equity and access but not quality performance. Recently, most parents of moderate and high economic status do register their children for external exams with private schools. Even those who could not afford private schools wish to have their children at all costs in private school, which consequentially affects enrollment in public schools. This crave for private schools coupled with exodus of public school students to private schools to write external examination makes the researcher to carry a comparative study of physics students' academic performance in private and public schools in both internal and external examination in Ikere-Ekiti local government area of Ekiti State, was to know whether students do perform better in internal exams than external exams, whether private secondary schools students do perform better than public schools student in Ekiti State and if they do, what then is the difference.

The purpose of this study is to compare the academic performance of students in both internal and external exams in physics, also private and public schools Ekiti State. Specifically it was designed to: ascertain the difference in students' academic performance in private and public schools in external exams in physics; find out the difference in students' academic performance in private and public in internal exams in physics; investigate the difference in male and female students' academic performance in internal examination; identify the difference in male and female students' academic performance in external examination; examine the difference in students' academic performance in private schools in internal and external examinations; determine the difference in students' academic performance in public schools in internal and external examinations; investigate the significant relationship between students' academic performance in internal and external examination in private schools; identify the significant relationship between students' academic performance in internal and external examination in public schools.

Methodology

The research design used for this study expo facto research design and this work was designed to compare physics students' academic performance in internal and external examinations in private and public schools in Ekiti State. The results of 238 SS3 students that sat for 2014/2015 internal and external (mock and WAEC) examination in four selected schools were used

The instrument used in collecting data for this study was primary source. The results of physics student in internal and external examinations from the four selected schools were used using random sampling technique.

The data collected, which were the students' scores of internal and external results of physics students, were analyzed using frequency counts and simple percentages. The null hypotheses were tested using the t-test statistical technique and correlation at 0.05 α-level.

Research Hypotheses

The following hypotheses were generated for this study:

H_o1: There is no significance difference in students' academic performance in private and public in external exams in physics.

H_o2: There is no significance difference in students' academic performance in private and public in internal exams in physics.

H_o3: There is no significant relationship between students' academic performance in internal and external examination in private schools.

H_o4: There is no significant relationship between students' academic performance in internal and external examination in public schools

Testing of Hypotheses

Hypothesis 1: There is no significance difference in physics students' academic performance in private and public schools in external exams.

Table 1: A t-test analysis of students' academic performance in private and public in external exams in physics.

Group	N	$\overline{X}$	S.D	df	Calculated value	Critical value	Remark
Public	42	6.5455	2.71713	107	2.21	1.96	Significant
Private	67	6.6779	2.80326				

Significant at 0.05 probability level

Table 1 shows that there is significant difference between private and public physics students' academic performance in external examinations. The private school students mean score in external examination is 6.68 as against that of public school students which is 6.55. This shows that there is significant difference as revealed in table 2, with private students performed better than the public students in external examination.

Hypothesis 2: There is no significance difference in students' academic performance in private and public in internal exams in physics."

Table 2: A t-test analysis of students' academic performance in private and public in internal exams in physics.

Group	N	$\overline{X}$	S.D	df	Calculated value	Critical value	Remark
Public	67	8.0714	3.40296	127	2.26	1.96	Not Significant
Private	62	8.92512	3.61512				

Significant at 0.05 probability level

Table 2 shows that there is a significant difference between private and public physics students' academic performance in internal examinations ($t = 2.26$, $p>0.05$). The private school students mean score in external examination is 8.93 as against that of public school students which is 8.07. This shows that there significant difference revealed in table 3 private students performed better than the public students in internal examination.

Hypothesis 3: There is no significant relationship between students' academic performance in internal and external examination in private schools.

Table 3: Correlation analysis between students' academic performance in internal and external examination in private schools

Variable	N	Df	r-cal	r- table
Internal	62	127	-0.431	0.195
External	67			

From table 3, the Pearson correlation analysis showed a calculated r-value of -0.431. This was observed to be greater than the critical r-value of 0.195 with 127 degrees of freedom at $\alpha = 0.05$ level of significance. Going by the result, the null hypothesis of no significant relationship between students' academic performance in internal and external examination in private schools was rejected.

Hypothesis 4: There is no significant relationship between students' academic performance in internal and external examination in public schools.

Table 4: Correlation between the academic performances of between students' academic performance in internal and external examination in public schools

Variable	N	Df	r-cal	r-table
Internal External	67 42	107	0.74	0.195

From table 2, the Pearson product moment Correlation analysis showed a calculated r-value of 0.74. This was observed to be greater than the critical r- value of 0.195 with 107 degrees of freedom at $\alpha = 0.05$ level of significance. Going by the result, the null hypothesis of no significant relationship between students' academic performance in internal and external examination in public schools tics was rejected.

Discussion

The findings revealed that the there is a significant difference between public and private school students in external exams. The mean score for the private school students is 6.68 while the public school students' mean physics achievement score is 6.55. This shows that the private school students are better than the public school students in external examination which in line with Agbatogun (2009), Olatoye (2009a, 2009b) who reported that there was a significant difference between public and private school students' achievement in science. Factors that could cause this include small class size, safe, neat and welcoming environment in private schools.

The findings also revealed that there is significance difference in male and female students' academic performance in external examination. It is evident that gender factor has influence on the performance of the students. It is important to note that both public and private school female students have higher mean scores. This is contrary to the popular opinion among researchers that the male students are better than the female students in science achievement.

Taking close look at the result of the findings, the students performed differently both in internal and external examinations. The failure in internal and external extermination was more pronounced in public schools. It was crystal clear from the data collected that the population of public school students sitting for internal exams was but later reduced drastically during external examination. This dropped a hint that some public school students moved to private schools when writing external examination.

Conclusion

This study has been able to establish the fact that private school students in Ikere–Ekiti Local Government Area of Ekiti state are perform better in physics than their counterparts in the public schools. These findings tend to provide justification for parents who have found private schools as an alternative to government-owned public schools. It is however important to stress that students' mean achievement scores in both public and private schools are below average.

This shows that a lot of work still needs to be done to raise students' performance in both public and private schools. The no significant difference in achievement by school type is an assurance that there is hope that private and public students have the potential of benefiting from science teaching.

Recommendations

It is therefore recommended that government at all levels should support the running of both public and private schools. More supervision should be done on the public schools to make teachers work better on the students in physics. Retraining of the teachers in both private and public schools to improve their physics instructional strategies should be the concern of all education stakeholders.

References

Barry, J. (2006). The effect of socio-economic status on academic achievement. Unpublished thesis submitted to the Department of Sociology And the faculty of the Graduate School of Wichita State University

Eamon, R. (2005).Efficiency and equity implications of subsidies of secondary education in Kenya. In David Newberry and

Nicholas Stern (Eds.). The theory' of taxation for developing countries. New York: Oxford University Press.

Kanno C.W and Ajagun E.S (2001).Parents' Involvement in Private Schools. Retrieved 22nd July, 2013.

Olatoye, R A. & Agbatogun A. A. (2009).Parental involvement as correlates of pupils' achievement in mathematics and science in Ogun state, Nigeria. Educational Research and Review, l4 (10), 457-464.

Olatoye, R A. (2009). Study habit, Self-concept and Science Achievement of Public and Private Junior Secondary School Students in Ogun State, Nigeria. *African Research Review*, l3, (4), 492-506

Olatoye, R. A. (2009) Students' Test Anxiety. Motivation for examinations and science achievement in junior secondary schools in Ogun State, Nigeria. *International Journal of Psychology and Counselling*, 1 (10), 194-198.