

EFFECT OF SCHOOL INTERVENTION ON STUDENT'S PERFORMANCE IN WEST AFRICAN SENIOR SECONDARY MATHEMATICS

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Abstract

Secondary school education as preparation ground for higher education has not been accorded its proper place. Thus, Lagos State Government with support from World Bank initiated the Èkó Project to give support to this sector. Context Input Process Product Evaluation Model provides the framework, while causal comparative research design is adopted. Simple random sampling, purposively and systematic sampling techniques are used to select respondents. Three validated research instruments are used. Data are analysed using descriptive statistics and independent t-test. The result shows that students in Lagos State perform better than students in Ogun State ($t=5.862, p<.05$) across the years under review. The Lagos Èkó secondary education project has achieved its objectives of enhancing the educational performance of public secondary school students. The project should be institutionalised to engender continuous students' performance.

Key words: Mathematics performance, School intervention, Èkó project

Introduction

The importance of Mathematics among school subjects in secondary school is well articulated in the school syllabus. Its significance and usefulness makes it possible for the subject to be taught every school day in all secondary schools in Nigeria. Thus, in the National Policy on Education, the Federal Government of Nigeria gives prominence to Mathematics by making it a core subject among several school subjects in the secondary school level. There is no doubt that what distinguishes the developed nations from the developing nations of the world is the degree of science and technology prevalent in these nations and Mathematics remains the hinge on which science rests. Therefore, it is important that schools provide a creative environment for students for the teaching of Mathematics, if good performance is expected (Erdogan & Baraun 2006). According to Anagbogu, Ihejiamazu and Uba (2014), its usefulness is in its application in everyday life. Mathematics performance is the proficiency of performance in any subgroup of

Mathematics or all the entire subdivisions of Mathematics skills usually represented by performance on a Mathematics test.

Among other reasons to justify the importance of Mathematics, Mamman and Eya (2014) upholds that Mathematics is a fundamental science that is necessary for the understanding of other fields in education. The fact that no other subject forms such a strong force among the various branches of science justifies the emphasis placed on it. This implies that the place of Mathematics in secondary school curriculum in Nigeria is paramount for scientific and human development as it serves both as a basic requirement/perquisite for entry into higher institution and as a tool for preparing the individual for useful living.

Despite the importance of Mathematics, research evidence has shown a downward trend in the performance of students in the subject as presented in Table 1 in West African Senior Secondary Certificate Examination and other public examinations. Some of the factors attributed to the downward trend in Mathematics performance are poor teaching methods and ineffective or incompetent teachers of the subject (Bakare 2014). This observation is not new as articulated by Uba (2012) who reported that Nigerian students, as a whole, score below average and fair badly when compared with students from other West African countries. Useni *et al.* (2012) also reported poor performance (less than 50% pass rate at credit level) of students in Mathematics in WASSCE in selected secondary schools.

Table 1.1: **Students performance in Mathematics May/June WASSCE 2000 - 2012**

Level of pass	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
C6 – A1	32.81	36.5	34.0	36.9	34.5	38.2	41.1	46.7	57.2	47.0	41.9	40.3	46.6
Pass	30.89	32.7	33.9	35.7	29.4	25.3	31.0	26.7	23.8	25.5	27.8	31.4	35.2
Fail	36.28	30.7	31.9	24.8	36.0	34.4	24.2	24.2	17.2	23.4	27.2	27.9	18.0
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Uba 2018.

According to Ale (2006), the cause of poor performance in Mathematics are not unrelated to the students, Mathematics teachers, schools, societal structures and the subject's nature. Of all these, the 'teacher factor' seems to be one that has the greatest effect on the Mathematics teaching-learning situation. Further, Akinsola and Ifamuyiwa holds the view that instructional strategies is one of the intervention plan adopted in time past for improving Mathematics achievement. Lagos State government with support from World Bank initiated *Èkó* secondary education project which has the broad objective of enhancing students' performance in six school subjects which are English language, Mathematics and Basic Science at the junior secondary level in public schools in Lagos State.

The Lagos *Èkó* Secondary School Education Project is a \$90 million intervention project by Lagos State government in partnership with the World Bank to raise learning

outcomes among students in public junior and senior secondary schools by providing access to yearly discretionary grant to improve the quality of educational services by taking care of the top needs identified at the school level through the school improvement plan. The *Èkó* project employs several institutions (service providers) and scores of experts (education consultants, policy makers) and is borne out of a reaction to a report by the National Strategy for Secondary Education in Nigeria: Synthesis report (2005) which stated that Lagos State had suffered severe shortfalls (61-80%) in teacher supply in ten subjects, Mathematics inclusive (Lagos *Èkó* Project, 2013).

The Project is an intervention targeted at addressing the deteriorating quality of education in the state particularly the poor performance of students in West African Senior Secondary Certificate Examination by focusing on learning outcomes in core subjects (English, Mathematics and the Sciences). The Lagos *Èkó* Project is the first education intervention in Lagos State with exclusive focus on 'enhanced learning outcomes'. An integral part of this process is the administration of standardised students' assessments to show the learning gains achieved by students over time and make learning outcomes more manageable and better understood. These students' assessment results are tracked by comparing successive results of baseline and end of the year results.

In view of the poor performance recorded in students' terminal examination and or public examination at local, national and international levels, Government of some nations have responded by sponsoring school interventions to revamp her education system. A few of such documented programmes reveal success. Others could be adjudged to have failed when their outcomes are compared with their main objective.

In Cameroon, high repetition rates (more than 40 per cent) due to over crowdedness in the Cameroon primary schools, large class sizes and high teacher/pupil ratio (TPR), amid poor students' achievements in Literacy, Numeracy and Life skills pushed the Government to introduce the Education for All-Fast Track Initiative (EFA-FTI) programme. The programme is an intervention programme intended to salvage the Cameroon primary education by enhancing its quality through the provision of inputs (human resources: qualified teachers) to solve the teacher shortage problem and also reduce class size, thereby, improving quality of education in the Cameroon primary classrooms. Results from the school intervention shows that the programme has failed to meet its goal; that of reduction in class sizes as class sizes are still high even in the project schools and despite the recruitment of 37,200 teachers, there is no significant difference in the educational achievement of pupils in the project and non-project schools.

Egbe (2014) however claims that, there is a significant difference between the project and non-project schools in terms of class sizes (56.75 and 59.90) and TPR (1:57 and 1:60), though he agrees that there is no significant difference in proficiency in Language use between project and non-project classrooms. The result also shows there is no

significant difference in achievement in Mathematics between project and non-project classrooms. There is a complex interrelationship between the three quality variables; teacher's academic qualification, teacher's professional qualification and teacher's effectiveness as two out of three are not significantly related ($p > .05$) to pupils' achievement. The only one significantly related ($p < 0.05$) is teacher's effectiveness. There is no statistical reason why neither teacher's academic qualification nor teacher's professional qualification could cause changes in pupils' academic achievement.

Ghana in 2008 responded to the findings of a research which showed that its educational system was not among the educational systems in the continent expected to reach the millennium development goal on education by 2015. This is due to lack of qualified teachers and role conflict crises between teachers and head teacher. Kathleen (2003) research findings support this claim. She submits that the manner in which high school principals govern their schools, organise and monitor the school's instructional program are outcomes of seasoned trainings. The government of Ghana sponsored a comprehensive reform to improve teacher and principal efficiency in high-poverty, low-performing schools. Though the reform had varied components, its main features were recruitment, retention, and performance bonuses for teachers and principals in schools with a greater concentration of very poor students. The outcome of the reform shows significant improvement in the effectiveness of the teachers in the treatment schools which did not stem from recruiting "higher performing teachers" or removing "lower performing teachers" but is rather associated with a combination of effective leadership, improved working conditions and performance bonuses (Rustin, 2015).

In Nigeria, the Akwa Ibom State Government, upon witnessing the poor performance of students in West Africa Senior Secondary Certificate Examinations (WASSCE) launched a teacher retraining and infrastructure development programme in response to the poor performance in Mathematics. The report of the programme suggests that while the programme was not effective in the first three years of implementation, in the fourth year, it improved students' performance by 0.39 standard deviation. The project report provides evidence that teacher retraining and reduction in class population could be used to improve academic performance in schools with large proportion of low-income students (Akwa Ibom State Ministry of Education Annual Report 2015).

Though several efforts by different administrations show on paper that public secondary schools have received appreciable attention, such claims are not commensurate with the present realities on ground. This has continued to dampen parents' preference for public schools in favour of private schools (the exorbitant fees charged in the latter notwithstanding). In response to this, Lagos state embarked on secondary school intervention tagged: Èkó project to improve the quality of its secondary schools. The intervention in secondary education by Lagos state government which was established to improve quality, is said to have been massive as documented in Èkó project yearly

reports. However, the gains of this project with respect to some stated objectives of the project appear not to have been widely published based on available literature. Sadly despite the school intervention, the failure rate in West African Senior Secondary Certificate Examination in Lagos State increased from 44 per cent in 2013 to 54 per cent in 2014.

The main concern of this investigation therefore is to evaluate the Lagos *Èkó* Secondary School Education Project using Ogun State as control state from 2007/2008 to 2014/2015 academic session with the aim of providing empirical evidence relating to its successes and/or failures, using the following variables: teachers' teaching effectiveness, principals' school management skills and students' performance in Mathematics.

Research question

- 1. What is the trend of students' performance in Mathematics for the period under study (2008 - 2015) in Lagos and Ogun States?**

Hypotheses

- 1: There is no significant difference between the percentage of students with credit pass in May/June WASSCE Mathematics in Lagos and Ogun States.
- 2: There is no significant difference between Mathematics teacher teaching effectiveness in Lagos and Ogun States.
- 3: There is no significant difference between senior secondary school principals' school management skills in Lagos and Ogun States.

Methodology

Causal comparative research design is adopted. This design is appropriate for this study because it allows for the retrospective examination of the independent variables to determine their possible relationship with the dependent variable. Context Input Process Product (CIPP) evaluation model by Guba and Stufflebeam (1970) provides the framework. The CIPP model is considered appropriate for this study because it takes care of all possible variables of interest in the study.

The target population comprises all senior secondary schools, their principals and teachers of Mathematics at the senior secondary school level and senior secondary two (II) students in Lagos and Ogun States. Three sampling techniques are used to select the samples. Simple random sampling technique is used to select 15 schools each from the six education districts in addition to the 5 technical colleges making a total of 95 schools. The 95 principals in the schools sampled are used for Lagos State. Systematic sampling technique is used to select 10 education zones from the 20 education zones in Ogun

State. 3 schools are selected from each of the 10 education zones using simple random sampling and the 30 principals in the schools are used. Further, purposive sampling technique is used to sample 1 Mathematics teacher each from the selected 95 schools in Lagos State and 30 schools in Ogun state. This sampling procedure is used to ensure that only teachers of this subject who participated in *Èkó* project teachers' professional development are selected. Simple random sampling technique is used to select 15 students from each of the selected schools. Therefore, one thousand four hundred and twenty-five (1425) students are sampled from Lagos State while for Ogun State, four hundred and fifty (450) students are sampled.

Three validated research instruments are used. The first is Teacher's teaching effectiveness questionnaire. This instrument is developed by the researcher, the instrument has two sections; A and B. Section A elicits demographic data, while Section B consists of twenty-four (24) items measuring teacher's teaching effectiveness in four areas: knowledge of the subject matter, classroom management, pedagogical skills and evaluation of students' learning skills with four response formats of 1 for (poor) and 4 for (excellent). The instrument produces reliability value of ($\alpha=0.89$). The second is Principal's school management skills questionnaire which is developed by the researcher. It comprises of 15 items on a 4 points Likert type scale of Strongly agree, agree, disagree and strongly disagree, the reliability value of the instrument is ($\alpha=0.79$) and Student performance profile (proforma) is developed by the researcher, the instrument is designed to assist the researcher record the percentages of candidates who sat for the examination within the years under review. Data are analysed using descriptive statistics and independent t-test at the 0.05 level of significance.

Results

Research question one

What is the trend of students' performance in Mathematics for the period under study (2008 - 2015) in Lagos and Ogun States?

Table 1: Trend of students' performance in Mathematics in Lagos and Ogun States (2008 2015)

YEAR	No. entered	No. Sat	State	CREDIT	PASS	FAIL	WITHHELD
2008	172916	170009	Lagos State	56.77	22.97	18.71	1.53
	50305	49128	Ogun State	33.56	19.56	45.91	0.95
2009	164178	160068	Lagos State	63.36	16.69	17.46	2.48
	51346	50291	Ogun State	34.6	21.76	42.13	1.50
2010	155759	149579	Lagos State	55.74	18.97	23.35	1.91
	53171	52252	Ogun State	34.66	23.03	41.11	1.18
2011	146784	144317	Lagos State	57.68	21.84	19.44	1.02
	59250	58000	Ogun State	36.2	20.96	42.71	0.11
2012	144595	141918	Lagos State	70.73	20.78	6.99	1.47
	65208	64267	Ogun State	47.0	26.82	25.63	0.53
2013	150726	147959	Lagos State	70.52	18.93	6.08	4.46
	73331	72076	Ogun State	52.50	25.07	21.00	1.40
2014	147830	145952	Lagos State	73.41	17.41	8.49	0.66
	70863	70309	Ogun State	46.09	21.97	31.42	0.49
2015	142576	141532	Lagos State	67.92	22.14	7.46	2.43
	76274	75832	Ogun State	52.16	20.40	26.31	1.05

No. Sat = Number of candidate that sat for the examination

No. Entered = Number of candidate that entered for the examination

As presented in Table 1, there is a downward trend in the number of candidate that sat for the May/June WASSCE in Lagos State across the years under review. In 2008, 170009 sat for the examination but the number reduced to 141532 candidates in 2015. In Ogun State, however, there is an observed increase in the number of candidates that sat for the examination. In 2008, only 49128 candidates sat for the examination but the number increased to 75832 candidates.

The rule in Lagos State that students must pass the promotional examination (MOCK) before they can be registered for May/June WASSCE led to the decrease in number of students who registered for the exams in the years under review. On the other hand, the decision of the Ogun State government to shoulder the responsibility of paying for the WASSCE of their students without them having written any Mock examination increased the number of students that SAT for WASSCE exams in Ogun State in the years under review.

As to the number of passes (A_1 - C_6) in Lagos State, more than 55% passed in the years under review and this consequently reduced the percentage of students who had ordinary passes (D7) or failed (E8 - F9) and the number of those whose results are withheld (often due to examination malpractice, wrong filling of OMR). In Ogun State less than 50% passed at credit level (A_1 - C_6) except in 2013 and 2015, though, result from the Table shows that, when the percentage of students passing at credit level increases,

there is no direct reduction in the percentages of students in the F9, ordinary pass or withheld (often due to examination malpractice, wrong filling of OMR) categories.

Test of Hypotheses

Hypothesis one

There is no significant difference between the percentage of students with credit pass in May/June WASSCE Mathematics in Lagos and Ogun States.

Table 2 : Independent t - test of students' performance in May/June WASSCE Mathematics in Lagos and Ogun States

Groups	N	Mean	SD	t-value	Sig.
Lagos State	8	64.51	7.07	5.862	.000
Ogun State	8	42.09	8.18		

*significant at 0.05 level of significance; df = 14

As presented in Table 2, the result is statistically significant $t(14) = 5.862$; $p < .05$. Table 2 reveals that the percentage of students with credit pass in May/June WASSCE in Lagos and Ogun States differ significantly in Mathematics. A cursory look at the result shows that students in Lagos State have a higher mean value ($M = 64.51$; $SD = 7.07$) than students in Ogun State ($M = 42.09$; $SD = 8.18$). This result implies that the null hypothesis which states that, there is no significant difference between the percentage of students with credit pass in May/June WASSCE Mathematics in Lagos and Ogun States is rejected. The mean difference between the two groups is 22.42 at the 95% confidence interval. However, the effect size $r = (0.84)$ is large revealing that this finding is substantive in real terms.

Hypothesis two:

There is no significant difference between Mathematics teachers' teaching effectiveness in Lagos and Ogun States.

Table 3 Independent t-test of Mathematics teachers' teaching effectiveness in Lagos and Ogun States

Grouping variable	N	Mean	SD	t-value	Sig.
Teachers' mastery of the subject matter Lagos State	95	27.31	2.94	1.45	.112
Teachers' mastery of the subject matter Ogun State	30	26.27	3.53		
Teachers' classroom management Lagos State	95	28.18	2.60	4.07	.000*
Teachers' classroom management Ogun State	30	25.63	3.96		
Teachers' Evaluation of student learning Lagos State	95	28.35	2.75	6.70	.000*
Teachers' Evaluation of student learning Ogun State	30	23.67	4.74		
Teachers' Pedagogical skills Lagos State	95	26.64	4.15	8.38	.000*
Teachers' Pedagogical skills Ogun State	30	19.17	4.57		
Overall teachers' teaching effectiveness Lagos State	95	110.47	10.04	7.07	.000*
Overall teachers' teaching effectiveness Ogun State	30	94.73	12.34		

* significant at 0.05 level; df = 123

As presented in Table 3, the result is statistically significant $t(123) = 4.07$; $p < .05$, two tailed. Table 3 reveals that teachers of Mathematics in Lagos State differ significantly from teachers of Mathematics in Ogun State in classroom management skills. A cursory look at the results shows that teachers of Mathematics in Lagos State have a higher mean value ($M = 28.18$; $SD = 2.60$) than teachers of Mathematics in Ogun State ($M = 25.63$; $SD = 3.96$). This result implies that Mathematics teachers in Lagos State demonstrate better classroom management skills than their counterparts in Ogun State. The mean difference between the two groups is 2.54 at the 95% confidence interval. However, the effect size $r = (0.35)$ is moderate and so represents a substantive finding.

For teachers' teaching effectiveness in evaluation of students learning, the result is statistically significant $t(123) = 6.70$; $p < .05$, two tailed. Also table 3 reveals that teachers of Mathematics in Lagos State differ significantly from teachers of Mathematics in Ogun State in evaluation of students learning. The result shows that teachers of Mathematics in Lagos State have a higher mean value ($M = 28.35$; $SD = 2.75$) than teachers of Mathematics in Ogun State ($M = 23.67$; $SD = 4.74$). This result implies that Mathematics teachers in Lagos State are better able to evaluate students learning than their counterparts in Ogun State. The mean difference between the two groups is 4.68 at the 95% confidence interval. However, the effect size $r = (0.35)$ is high and so represents a substantive finding.

For teachers' teaching effectiveness in pedagogical skills, the result is statistically significant $t(123) = 8.38$; $p < .05$, two tailed. This result implies that teachers of Mathematics in Lagos State differ significantly from teachers of Mathematics in Ogun State on pedagogical skills. A cursory look at the results shows that teachers of Mathematics in Lagos State have a higher mean value ($M = 26.64$; $SD = 4.15$) than teachers of Mathematics in Ogun State ($M = 19.17$; $SD = 4.57$). This result implies that Mathematics teachers in Lagos State demonstrate better pedagogical skills than their counterparts in Ogun State. The mean difference between the two groups is 7.47 at the 95% confidence interval. However, the effect size $r = (0.60)$ is large and so represents a substantive finding.

For teachers' teaching effectiveness in mastery of the subject matter, the result is not statistically significant $t(123) = 1.60$; $p > .05$, two tailed. This result implies that teachers of Mathematics in Lagos State do not differ significantly from teachers of Mathematics in Ogun State on mastery of the subject matter. Though, there is no statistical significant difference observed between the groups, a cursory look at the results shows that teachers of Mathematics in Lagos State have a higher mean value ($M = 27.31$; $SD = 2.94$) than teachers of Mathematics in Ogun State ($M = 26.27$; $SD = 3.53$). This result implies that, Mathematics teachers in Lagos State are better in demonstration of mastery of the

subject matter than their counterparts in Ogun State. The mean difference between the two groups was 1.03 at the 95% confidence interval.

For overall teacher teaching effectiveness in the four dimensions studied, the result is statistically significant $t(123) = 7.07$; $p < .05$, two tailed. This result implies that teachers of Mathematics in Lagos State differ significantly from teachers of Mathematics in Ogun State on the overall teaching effectiveness. A cursory look at the results shows that teachers of Mathematics in Lagos State have a higher mean value ($M = 110.47$; $SD = 10.04$) than teachers of Mathematics in Ogun State ($M = 94.73$; $SD = 12.34$). This result implies that Mathematics teachers in Lagos State are better than her counterparts in Ogun State in the four dimensions of teachers' teaching effectiveness studied. The mean difference between the two groups is 15.74 at the 95% confidence interval. However, the effect size $r = (0.54)$ is large and so represents a substantive finding.

Hypothesis Three

There is no significant difference between senior secondary school principals' school management skills in Lagos and Ogun States.

Table 4: Independent t-test of principals' school management skills in Lagos and Ogun States

Grouping variable	N	Mean	SD	t-value	Sig.
Principals in Lagos State	95	45.36	1.45	4.26	.000
Principals in Ogun State	30	42.88	9.45		

* significant at 0.05 level; $df = 123$; $r = 0.36$

As presented in Table 4, the result is statistically significant $t(123) = 4.26$; $p < .05$, two tailed. Table 4 reveals that Lagos State senior secondary school principals differ significantly from Ogun State principals in school management skills. A quick look at the results shows that Lagos State principals have a higher mean value ($M = 45.36$; $SD = 1.45$) than Ogun State principals ($M = 42.88$; $SD = 9.45$). This implies that Lagos State principals exhibit better school management skills than Ogun State principals. The mean difference between the two groups is 2.46 at the 95% confidence interval. However, the effect size $r = (0.36)$ is moderate and so represents a substantive finding. Therefore, the null hypothesis that there is no significant difference between senior secondary school principals' school management skills in Lagos and Ogun States is rejected.

Discussion of findings

Students' performance in Mathematics over the years (2008 - 2015) under review is not static and does not show a steady upward trend in Lagos and Ogun States, though improvement (above 50% credit pass) is observed in Lagos state as against poor (below 50% credit pass) students' performance in Ogun state in similar years. This is because, from the commencement of Lagos Èkó secondary school education project in 2009, extra efforts were made to ensure that the abysmal performance of students in year 2008 was avoided in Lagos State, while in Ogun State, there was no conscious effort to increase students' performance. The changes in students' performance in Ogun state from 2009 to 2015 can therefore be attributed to chance.

The increase in Lagos State performance from below 50% in 2008 to above 50% from 2009 shows that the contributions of Èkó Secondary School Education Project is not trivial. This increase happened at a time when the national average performance of students in WASSCE was below 50%. In fact, it appears like certain states (Ogun, Ekiti and Nasarawa) which did not launch an intervention project like that done in Lagos maintained their abysmal poor performance. However, this result is not consistent with previous reports. WASSCE (2011) report shows that in 2000, only 32.8% passed Mathematics at credit level at the National level and in 2010, only 43.8% students passed. Similarly West African Examination Council (2016) report also shows poor performance (below 50%) in Mathematics in Ogun State, where only 33.56% passed at credit level in 2008 and 52.50% passed in 2014. The nature of the classrooms in Ogun State could be said to be responsible for this low performance as teachers do not have the needed gadgets to amplify their voices while teaching classes of over 100 students. Consequently, some students are only physically present in class. They hardly benefit anything whatsoever from the class.

It is interesting to note that the findings of the present study is different from the findings of Useni *et al.* (2012) which indicates less than 50% pass rate at credit level when they carried out the analysis of students' performance in WASSCE Mathematics in selected secondary schools. Èkó project may have been instrumental to this result difference.

The findings of this study show that Mathematics teachers in Lagos state public secondary schools significantly differ from teachers in Ogun state in three(classroom management skills, pedagogical skills and evaluation of students learning) out of the four dimensions of teaching effectiveness studied. This result is expected because teachers are trained in the dimensions of teaching effectiveness investigated. This result is similar to the research findings by Muijs and Reynolds (2000) that teacher effectiveness is the **most** influential school-based factor in student achievement. **Highly effective teachers'** students achieve high scores in internal and external examinations (e.g., one and one-half per cent of students gain higher scores than students from low effective teacher). Research findings have consistently shown that teachers have the

greatest potential to influence students' education and that student achievement is related to teacher competence in teaching which means that, competent teachers can change non-achieving or low performing students in Mathematics to high performing students or high achievers. This is what happened in Lagos state when her teachers were retrained to be effective teachers.

Also, the fact that, Lagos State senior secondary school principals differ significantly from Ogun State principals in school management skills, could be due to the *Èkó* project training organised for principals' and school administrators on school management skills; quality assurance; monitoring and evaluation. This result collaborates Kathleen's (2003) research finding on principals that the manner in which high school principals govern the school, build strong climate, organize and monitor the school's instructional program are outcomes of seasoned trainings.

Conclusion and recommendations

These findings have important educational implication for Government, Mathematics teachers and funding organisation. The Lagos *Èkó* Secondary Education Project was successful in improving students' performance in Mathematics, enhancing teachers' teaching effectiveness and boosting principals school management skills in Lagos State.

Therefore, the programme should be encouraged to continue until students' performance is peaked at a consistently high position in the subject. Also, other States, particularly Ogun state can learn from Lagos State and replicate *Èkó* project to change the poor performance of their students in public examinations.

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