Effects of 'Cluster School Based' Teacher Professional Development Model on the performances of Primary School Social Studies teachers and their pupils in Plateau State, Nigeria

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Abstract:

The study examined the impact of cluster school based teacher professional development model on the performances of primary school Social Studies teachers and their pupils. Simple random sampling technique was used to select teachers from the 25 clusters. Two hypotheses were formulated and tested using t-test statistics to find out if any differences exist in the performances of the teachers and their pupils during the intervention. The study revealed that a significant difference exists between the performance of both the teachers and their pupils at the preintervention and post intervention levels. That the programme should continue to be spearheaded by UBEC and be sustained by SUBEB so that all the teachers in the primary schools in the state benefit from it and also, teachers that participated be encouraged to meet at least 3 times per term according to their clusters to plan, strategize and evaluate different aspect of teaching.

Key Words: cluster school based, teacher professional development, social studies, primary school teachers, pupils

1.1. Introduction

Education is a major tool for national socio-economic development as well as for individual socio-economic empowerment and poverty reduction. The educational system is vital, because it produces the personnel that are required to function in various facets of national life and development process. For this to be achieved, the teacher stands out as one of the most important factors determining the quality of education and its contributions to national development. At every level, people who go to school look on the teacher for the acquisition of the necessary knowledge, values and skills to enable them become functional citizens. Thus, students often rely on the personal and educational qualities as well as professional competence of their teachers for optimal performances. Unfortunately, despite the efforts made to establish various training Institutions to produce competent teachers in Nigeria, the story today is far from the realization of the dreams. This problem can be attributed to several factors, including: inadequate recognition for teachers; brain drain; relatively poor motivation and remuneration; inadequate funding of educational institutions leading to poor/inadequate infrastructure. Low teacher motivation is often reflected in teacher apathy, lack of commitment, absenteeism and relatively high labour turnover. The teachers can hardly give their best in this situation. This makes it difficult for the educational sector to attract

and retain the top-quality personnel that are required to function in the system, especially at the primary and secondary levels.

Therefore, in order to close the above gaps, government at different levels had introduced different measures to improve the qualities of the practicing teachers. One of such measure is the inservice programme in form of workshops. Unfortunately this in-service traditional form of professional development for teachers are centralized training that provides a large audience of participants with information of relevance to their practice. Traditionally, most of this kind of workshop is one shot experience completely unrelated to the needs of the teachers and providing no follow up. As Jesness (2000) rightly observed, anyone who thinks education can be substantially improve with workshop probably hasn't ever attended one. In justifying this position, Leu, (2004) highlighted some of its characteristics to include:

- (i) they reach only a small percentage of teachers;
- (ii) there is rarely a mechanism in place for the cascade or multiplier to work;
- (iii) they are "expert-driven" in that a desk-bound specialist typically transmits abstract information to teachers;
- (iv) they are often based on a series of presentations or lectures and therefore provide negative models of passive learning;
- (v) Participants in such centralized workshops frequently return to their schools and tell their colleagues "that was a nice workshop" and information flow stops there.

In addition to the above, the personal observations of this author over the years in various workshops where he served either as a resource person or a monitoring officer in Nigeria depicts the following:

- 1. Re-cycling of the same teachers as participants each time such workshops are organized
- 2. Teachers without 'god fathers' were never selected to participate
- 3. Overcrowded classrooms and centers
- 4. Reading of notes/handbook/handout by resource persons
- 5. Non practicing teachers sometimes were included as participants
- 6. Most sessions were not participatory
- 7. Maximum of six days for the workshops
- 8. Communities/stakeholders were not involved
- 9. In most cases, there was no pre-workshop orientation for resource persons and where attempt was made, it was always haphazardly done.
- 10. Mechanism was not always put in place to follow up in order to ascertain the level of implementation of new idea and skills acquired.
- 11. Assessment of the impact of these workshops on teachers were never done.
- 12. Pupils were not involved in the process of the workshops nor were they assess to find out the impact of the workshops on them.

From the foregoing, one can infer that the various relevant government agencies noting the failure in the realization of the objectives of the traditional large scale workshops in Nigeria to improve on the quality of teaching and learning especially in primary schools decided to restrategized. The new position towards improving the quality of the practicing teachers in Nigeria is the introduction of the Cluster School Based Teacher Professional Development Model. This new position adopted by Nigeria is not surprising because of the successes recorded by some developed and developing countries in its usage. The Universal Basic Education Commission (UBEC), a body served with the responsibility of Basic Education in Nigeria is in the forefront of championing this new approach.

1.2. Cluster School Based Teacher Professional Development Model

The School-based and Cluster Teacher Professional Development focus on specific issues of pedagogy and content. It involves collaborative efforts of teachers within schools, and involves participation of school leaders and staff. Sparks and Hirsch (1997) opined that the most effective Teacher Professional Development (TPD) take place as close to student learning as possible- in schools and classrooms. They situate activities on and offsite, combine resources with other schools in their cluster of district, and employ the services of external experts and internal resource persons. In order for this programme to be successful, it must be sustained over time and the learning of teachers and their students must be continuously assessed and improved upon.

The goal of the teacher in service professional development of UBEC is to improve the overall quality of teaching and learning in Nigerian primary schools (UBE 2003). However, the objectives of the cluster schools model of Teacher Professional Development among others are to:

- 1. Establish reasonable groups of schools into clusters in order to achieve quality education through sharing of experience, expert mentoring and teacher support;
- 2. Provide guidance and support in the management and structure of school cluster groups;
- 3. Provide intensive school based professional support;
- 4. Expose teachers to current trend in education policies and teaching methodologies;
- 5. Judiciously utilize available resources for teacher development and get value for money;
- 6. Assist teachers and other personnel to develop the spirit of team work, share ideas and innovations in teaching as well as develop creative skills to produce relevant instructional materials from local resources;
- 7. Mentor, especially the less experienced teachers;
- 8. Encourage collaborative peer support in all school activities;
- 9. Provide support for teachers when trying out new ideas on how to prepare lesson plans etc;
- 10. Reduce the stress, costs, time and risks involved in travelling long distances to attend workshops and seek support; and
- 11. Focus on specific challenges unique to the local environment and Local Government Education Authority (LGEA).

In order to actualize the above objectives, UBEC in collaboration with the 36 states State Universal Basic Education Board (SUBEB) introduced the School Cluster model as a major focus for in-service teachers in 2013/2014 academic. Therefore, The School Cluster Teacher Professional Development Programme in Plateau State was conducted in twenty five clusters in the seventeen Local Government Areas (LGAs) of the State. The programme was implemented from January, 13th to April, 11th 2014. One of the main purpose of the programme was to provide opportunity to teachers and head teachers of the selected schools to improve in their professional practices with the belief that it will results in the improvement on the quality of teaching and learning. The programme started with sensitization meetings with the relevant stakeholders and this was followed by a two day workshop for mentors. This workshop centered on practical issues on lesson preparation and presentation as well as improvisation of instructional materials. The mentors worked in groups and engaged in various presentations, made critique on lessons and proffer suggestions on practical ways to improve strategies and techniques during lessons. Nevertheless, the programme proper focuses on sit- in observations, cluster meetings, lesson study, needs based workshops and teaching practice.

1.3. Purpose of the study

The main purpose of this study was to find out the effect of Cluster School Based TPD on Social Studies teachers as well the pupils used during the programme. In specific term, the study will attempt to:

- 1. Compare the performance of Social Studies teachers before and after the intervention.
- 2. Compare the performances of pupils taught by Social Studies teachers before and after the intervention

1.4. Research questions

- 1. To what extent has the exposure of Social Studies Teachers to 'Cluster School Based' TPD (Teacher Professional Development) Model help to improve on their classroom performances?
- 2. Does the exposure of Social Studies teachers to 'Cluster School Based' TPD model have any effect on the performances of pupils that were taught during the TPD training?

1.5. Research Hypotheses

- 1. There is no significant difference in the performance of Social Studies teachers before and after been exposed to cluster school based TPD model.
- 2. There is no significant difference in the performance of pupils before and after been taught by Social Studies teachers exposed to cluster school based TPD model.

2.0 Methodology

2.1. Population

There were 25 clusters created by SUBEB in Plateau State with 10 schools each from the 17 LGAs. In each cluster there were 10 Social Studies teachers working together as a team and they were from 10 different schools. This gave a total of 250 Social Studies teachers that participated in the programme. In each cluster also, there were 25 mentors that worked with the teachers i.e. one mentor per cluster.

2.2. Sample Population

A total of 250 Social Studies teachers participated in the TPD throughout the state. For the research, one teacher was selected in the ratio of 1:10 making a total of 25 teachers (10%) using Simple random sampling technique All the teachers from the 25 clusters were given equal chance of being selected. The teachers were picked randomly from the strata with the use of simple random sampling without replacement. The process like a lucky dip was used, each teacher was given number on the list and any number picked was selected. The Class size was between 30 to 45 pupils per class.

2.3. Instruments for data collection

The instruments used for this research were the same developed by UBEC meant to help them assess the impact of the programme in the 36 states of Nigeria. They include:

1. Cluster impact survey instrument No 1: (Classroom lesson observation checklist): The Classroom lesson observation checklist was used for the purpose of assessing the teacher's lesson preparation and presentation. This instrument focuses on lesson plan, teaching procedure, fundamental technique/methodology, instructional materials, and class management and control. It was used during the pre – impact and final – impact survey as well as during the teaching practice exercise.

2. Cluster impact survey instrument No3: (Pupils Participation Questionnaire): The pupils Participation Questionnaire was used during the period of the programme. The purpose was to determine the level of pupils' involvement and learning outcome in the process of lesson presentations.

2.4. Data Analysis

The data collected were analyzed using paired sampled t test.

3.0. Findings

Results of the study are presented in line with the research questions and hypothesis as follows:

3.1. Research question one:

To what extent has the exposure of Social Studies Teachers to 'Cluster School Based' Teacher Professional Development Model help to improve on their classroom performances?

Table 1: The Mean Scores of Performances of Social Studies Teachers at Pre-impact and Final-impact levels

Paired Samples Statistics

	-	Mear	n	N	Std. Deviation	Std. Error Mean
Pair 1	SOCIAL STUDIES FI IMPACT RESULT	INAL 3.57		24	.66294	.13532
	SOCIAL STUDIES IMPACT RESULT	PRE 2.68		24	.71922	.14681

This table presents the average performance of Social Studies teachers at different stages of the programme. The above table shows that at pre-impact stage, the mean score was 2.6867. However, at the final-impact stage, the mean score was 3.5704. The 0.89 differential mean is attributed to the impact of the programme. This shows that the programme had positive impact on Social Studies teachers that took part in it.

Table2: The t-test Showing the Performance of Social Studies Teachers at Pre and Post Impact levels

Paired Samples Test

	Paired Differences									
					95% Interval Difference	Confidence of the				
			Std. Deviation	Std. Error Mean		Upper	t-cal	t. table value	df	Sig. (2- tailed)
Pair 1	SOCIAL STUDIES FINAL IMPACT RESULT - SOCIAL STUDIES PRE IMPACT RESULT		.90791	.18533	.50037	1.26713	4.769	2.069	23	.000

The table above shows that the t calculated is 4.769 while the t table value is 2.069. Since the t calculated value is greater than the t table value, it means that the hypotheses which stated that there is no significant difference in the performance of Social Studies teachers before and after been exposed to cluster school based TPD model is rejected. This is further confirm by the result earlier presented in table one.

3.2. Research question 2:

Does the exposure of Social Studies teachers to 'Cluster School Based' TPD model have any effect on the performances of pupils that were taught during the TPD training?

Table 3: The Mean Scores of Pupils used by Social Studies Teachers at Pre and Final Impact levels Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	FINAL IMPACT	2.75	50	.69	.09851
	PRE IMPACT	2.02	50	.66	.09411

Table 3 above is on the average performance of pupils at different stages of the programme. The table shows that at pre-impact stage, the mean score was 2.0270 while at the final-impact stage, the mean score was 2.75. The 0.73 mean scored differentiated is deduced to the impact of the programme. This shows that the programme have impacted positively on the pupils that were taught by Social Studies teachers that participated in the programme.

Table 4: The t-test Showing the Performances of Pupils used by Social Studies Teachers at Pre and Final Impact levels

Paired Samples Test

	Paired Differences										
		Mean	Std. Deviatio n	Std. Error Mean	95% (Interval Difference	Confidence of the e Upper		t.tablel value	df	Sig. (i	(2-
Pair 1	FINAL IMPACT - PRE IMPACT	.73033	.99639	.14091	.44716	1.01350	5.183	2.021	49	.000	

The table above shows that the calculated t value is 5.183 while the t table value is 2.02 at .05 level of significance. Since the t calculated value is greater than the t table value, it means that the hypotheses which stated that there is no significant difference in the performance of pupils before and after been taught by Social Studies teachers exposed to cluster school based TPD model is therefore rejected. This means that there is significant difference in the pupils' performance between the pre-impact and final-impact levels. This is further confirm by the result earlier presented in table three.

4. Discussion of the findings

The study found that Cluster school based TPD greatly enhanced the performances of Social Studies teachers that participated in the programme. During the programme, teachers from different

schools were formed into clusters where meetings were held to discuss and practice different aspects of their work under their mentors. In specific terms, areas like lesson plan, teaching procedure, fundamental technique/methodology, development and use of instructional materials as well as class management and control formed the major themes. This finding is in line with a study carried out in East Africa in 2002. In the report, Anderson (2002) outline different factors that contributed to the effective TPD to include teachers having access to teacher-centered and school-based workshops; in-class coaching by consultants, supervisors, or peers; team planning and problem-solving by collegial work groups etc.

Another major area of this study was to find out if the impact on the teachers will have a spilt over effect on the pupils used. Interestingly, the finding shows positive impacts too on the pupils' performances. This was demonstrated by the high performances of the pupils in their results of final impact over pre-impact results. The Social Studies teachers in the course of the programme involved their pupils in different activities carried out. They were also encouraged to use pupils' center approach in their lesson delivery and also to use variety of instructional materials. Child friendly learning environment was emphasized. The finding of this study is supported by a pilot study in Namibia on TPD carried out by Van-Graan, Leu, Price-Rom and Barrow (2006). They reported that students preferred teachers who involve them, give them a chance to ask questions and participate in group activities. Students believe that they are learning when they get good grades. For this to be achieved, that affective atmosphere reflecting positive interaction between teachers and students like a supportive, trusting, and non-threatening classroom environment were created. Also that teachers used materials and resources well to support their lessons while teachers involved their learners by engaging them in different tasks. These were in line with what took place during the TPD in Plateau state.

5. Conclusions

Based on the findings of this study, the following conclusions were deduced:

- 1. Cluster school based TPD provided a conducive atmosphere for active participation of the teachers and their pupils.
- 2. The cluster school model of TPD has the capacity of improving the quality of teaching and learning.
- 3. Teachers can now produce variety of instructional materials from local resources and be able to utilize them effectively and appropriately
- 4. Subject mastery and adequate content delivery has improved.
- 5. Attitude to work by both the head teachers and their teachers greatly improved.
- 6. Lateness to school by pupils reduced while attendance rate by them improved
- 7. The programme had positive impact on Social Studies teachers that took part in it.
- 8. The programme had positive impact on the pupils' performance that were taught by Social Studies teachers that participated in it.

6. Recommendations

Based on the findings of the study, the following recommendations are proffered:

- 1. The programme should continue to be spearheaded by UBEC and be sustained by SUBEB so that all the teachers in the primary schools in the state benefit from it.
- 2. For the sustenance of the benefits of this programme, teachers that participated should be encouraged to meet at least 3 times per term according to their clusters to plan, strategize and evaluate different aspect of teaching.

3. For number two suggestion to be attained, stipend be given to them to cover transport, snacks etc.

4. Five schools for a cluster will be better managed than 10 Schools while the LGEA should ensure that selected schools are really neighboring schools that make the cluster.

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