



The Effect of School-Based Teacher Development Training Programme on Teachers' Competencies in Bayelsa State of Niger Delta, Nigeria

Dr. Nateinyin Joy Akporehwe^{a*}, Dr. T. Ibebietai Offor^b, Dr. Nosa A.
Akporehwe^c

^a *Department of Teacher Education, Niger Delta University, Wilberforce Island, Yenagoa,
560231, Bayelsa State*

^b *Department of Educational Foundations, Niger Delta University, Wilberforce Island, Yenagoa,
560231, Bayelsa State*

^c *Consultant/Honorary Senior Lecturer, University of Aberdeen/NHS Grampian, Aberdeen, UK*

^a *natei.akporehwe@mail.ndu.edu.ng*

^b *ibebietempleoffor@yahoo.com*

^c *vicpet@europe.com*

Abstract

The researchers investigated the effect of a two-week training programme on teachers' acquisition of School-based Teachers Development (SbTD) concepts. The concepts considered were active learning, reflective teaching, activity-based learning and individual differences. The one shot pretest-posttest control group design was adopted. The sample consisted of eighty four (84) Universal Basic Education (UBE) teachers drawn from a population of one hundred and fifty (150) teachers from three Local Government Areas in Bayelsa State. A 15-item test tagged Teachers' Competency Test (TCT) prepared by the Department for International Development (DFID) and United Nations International Children Education Fund (UNICEF) serves as the instrument for data collection and was therefore considered valid and reliable.

* Corresponding author.

natei.akporehwe@mail.ndu.edu.ng

The four research questions raised were analyzed using means and standard deviations while the corresponding hypotheses were tested using t-test at $P < .05$ level of significance. Result showed that training impacted positively on teachers' acquisition of SbTD concepts, the effect of teachers' qualification on acquisition of SbTD concepts was significant while there was a non-significant effect of gender on teachers' acquisition of the concepts. It was recommended that teachers should be exposed to regular professional development training programmes to enhance their professional competencies, both male and female teachers should be encouraged to participate in the SbTD programme eliminating gender disparity and the extension of the programme to other local government areas to have an even spread.

Keywords: Activity-based learning; Active learning; Reflective teaching

1. Introduction

Education generally has been recognized as a tool for development by nations of the world, and as such has developed national policies in this regard to direct or shapen their educational systems. Such policy statements clearly define what education ought to do for its citizenry. In Nigeria, the author in [5:5] categorically stated that "the Federal Government has adopted education as an instrument par excellence for affecting national development". It further stressed that for the benefit of all citizens, the country's educational goals in terms of relevance to the needs of the individuals as well as in terms of kind of society desired in relation to the environment and the realities of the modern world and rapid social changes should be clearly set out.

The 9-year Basic Education programme is a vehicle for achieving this goal and according to the author in [4:310] "every learner that has systematically gone through the 9-year Basic Education, should have acquired appropriate level of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civil values needed for laying a solid foundation for life-long learning as a basis for scientific and reflective thinking"

The author in [9:188] ascertained that "the new 9-year Basic Education Curriculum was designed to meet the key targets of the National Economic Empowerment and Development Strategy (NEEDS)". According to the author in [4:309] "the new UBE curriculum would not only facilitate attainment of the core elements of the home grown (NEEDS) but also an approach to the realization of the international goals of Education for All (EFA) and Millennium Development Goals (MDG's)". Meeting such education targets will require the preparation of adequate and a competent teaching workforce for it is on the efforts of the teacher that the curriculum which has been designed in a society depends for success in terms of leading to the appropriate ends of education in the society. In this light, the author in [8:276] argued that "the success or failure of the implementation agenda rests squarely on the teacher, for he/she brings the learner on a face to face encounter with all adequate learning activities".

In responding to teacher preparation and professionalism at the Basic Education level, the Federal Government of Nigeria in collaboration with Department for International Development (DFID) and United Nations Children's Emergency Fund (UNICEF) in 2008 developed a school-based Teacher Development Programme

(SbTD) for providing continuous Professional Development for teachers. The SbTD programme is designed to produce a model Nigerian Basic Education Teacher who;

- Has a sound knowledge base
- Is professionally competent and capable, and
- Has an admirable attitude.

What is SbTD?

“SbTD is an approach to in-service teacher education using carefully prepared instructional materials for training, self-learning, and development of enabling skills for active learning and reflective practice” as elucidated by the authors in [6:ii]. It involves continued professional development of teachers while on the job, providing teacher mentoring and supervisory support, and cluster meeting to handle challenges faced by the teachers.

The objectives of SbTD include the following;

- Provide the teacher with self-learning modules and training packages/teaching resources that will support his/her school-based professional development;
- Adopt modalities for the delivery of the programme which ensures cost-effective systems of in-service teacher education;
- Ensure coherence and consistency in the delivery of in-service teacher education;
- Facilitate the development of a national teacher competency framework based on the Nigeria model Basic Education Teacher, and
- Develop a framework for gender sensitive in-service Training (INSET) provision.

The objectives of the programme if well implemented will enable teachers to plan and organize activities that will promote active teaching in their learners and will be able to reflect and improve on their practice.

2. The Problem

With the passage of the UBE Act in 2004, all tiers of government in Nigeria were mandated to provide free, compulsory nine- year Universal Basic Education of good quality for primary and junior secondary school age. This resulted in increased population of these levels, and a gross inadequacy of qualified teachers.

Table 1 Shows the enrolment of pupils in the universal basic education programme across 8 Local Government Area in the State visa-avis the staff strength.

Table 1 shows that UBE teachers are in short supply as revealed by the high teacher student ration except for Kolokuma-Okpokuma with a teacher-student ratio of 1:37. This falls short of the ratio of 1:30 as indicated by the author in [5:13].

Table 1: Academic Staff Strength of UBE Teachers and Pupils' enrolment across LGA's

S/No	LGA'S	No. of Teachers	No. Pupils	Teachers student ratio
1	Nembe	692	54,453	1:81
2	Ogbia	1015	75,682	1:75
3	Sagbama	915	56,893	1:62
4	Brass	470	31883	1:68
5	Ekeremor	792	59,829	1:72
6	Kolokuma/Okpokuma	311	11,440	1:37
7	Southern Ijaw	680	111,392	1:164
8	Yenagoa	886	100,533	1:113

Source: Bayelsa State Primary Schools Board

Previous study cited by the authors in [1:48] also reflected the poor quality of teachers as 55% of UBE teachers in Bayelsa state having certificates lower than the National Certificate in Education (NCE) which is also against the provision made in author [5:5].

It is worthy to note that the achievement of national development and the success of the other levels of education will depend on how well the UBE scheme is being managed by professional and competent teachers. Providing training for teacher development while on the job is therefore very necessary. In Bayelsa State several workshops and training programmes have been organized by UBEC for teachers, but the question is do such programmes always boost the professional competencies of teachers? The intent of this study is therefore to assess the impact of a-two week training programme on teachers' acquisition of SbTD concepts.

3. Research Questions

Four research questions were raised for investigation as follows:

1. What is the influence of training on teachers' acquisition the concepts of active learning, reflective teaching, activity-based learning and individual differences?
2. To what extent do male and female teachers differ in their acquisition of SbTD concepts after undergoing training?
3. To what extent does teachers' qualification affect their acquisition of SbTD concepts?
4. What influence have years of experience on teachers acquisition of SbTD concepts after training?

4. Hypotheses

To make study more qualitative four hypotheses were also developed, viz:

H₀₁: There is no significant influence of training on teachers' acquisition of SbTD concepts.

H0₂: There is no significant sex difference on teachers' acquisition of SbTD concepts after undergoing training.

H0₃: There is no significant effect of qualification on teachers' acquisition of SbTD concepts.

H0₄: Teachers' years of experience will not significantly affect their acquisition of SbTD concepts after training.

5. Materials and Methods

The one-group pre-test post-test design was adopted by the researchers. The population comprised all the one hundred and fifty (150) teachers in Sagbama, Ogbia and Nembe Local Government Area (LGAs) of Bayelsa State. The three LGAs are earmarked by UNICEF for pilot testing the efficacy of SbTD programme on teachers' professional development in the state. The sample consisted of eighty four teachers (84) drawn from selected schools in the three LGAs. The researchers were not in control of the selection process as the participants (teachers) were only nominated by their respective head teachers and the education secretaries.

The teachers were pre-tested on SbTD concepts before the commencement of training. The instrument consisted of items already prepared by UNICEF and DFID and therefore considered valid and reliable. SbTD module consisted of five key areas viz: Active learning, reflective teaching, activity-based learning, classroom management and individual differences. But for the purpose of this study, classroom management was excluded considering the duration of training. The facilitators exposed teachers on the content areas of SbTD using active learning strategy and reflective practice. The training which was in morning and afternoon sessions daily, lasted for two weeks, and at the end of training, the same instrument was administered as post-test.

6. Results

Research Question 1: What is the influence of training on teachers' acquisition of SbTD concepts?

Table 2: Pre-test and post-test mean scores showing the influence of training on teachers' acquisition of SbTD concepts

Variables	Number	Pre-test Mean	Post test Mean	Mean difference
Teachers	84	8.93	40.69	31.7

Table 2 showed the pretest and posttest mean scores as well as the mean differences

The pretest mean was 8.93 while the posttest mean was 40.69. The table revealed that there exist a mean difference of 31.76 which is an indication that training influenced the acquisition of SbTD concepts among teachers.

Research Question 2

To what extent does gender of teachers influence the acquisition of SbTD concepts?

Table 3: Pre-test and post-test mean scores showing the influence of gender on teachers’ acquisition of SbTD concepts

Variables	Number	Pretest Mean	Post test Mean	Mean difference
Male	40	10.45	38.2	27.75
Female	44	7.54	39.68	32.14

Table 3 revealed the pre-test and post-test mean scores of male and female teachers

There exists difference in the mean difference between male and female teachers’ scores of 27.75 and 32.14 respectively. This gives an indication that the rate of acquisition of the SbTD concepts with training was also affected by gender.

Research Question 3: To what extent do teachers’ qualifications affect the acquisition of the SbTD concepts?

Table 4: Pre-test and post-test mean scores of teachers showing the effect of qualifications on the acquisition of the SbTD.

Variables	Number	Pre-test Mean	Post-test Mean	Mean difference
Teachers with NCE	62	7.68	32.38	24.7
Teachers with B.Ed and above	22	12.45	53.00	40.55

Table 4 showed the pre-test and post-test mean scores of teachers with NCE and those with B.Ed and above as well as the difference that existed between their mean scores. The post test mean score (53.00) of teachers with B.Ed and above was higher than the posttest mean score (32.38) of teachers with NCE. The table also revealed that the mean difference (40.55) of teachers with B.Ed and above was higher than that of teachers with NCE. This is an indication that in addition to training, the qualification of teachers also affected the acquisition of SbTD concepts. In addition to training, the qualification of teachers also affected the acquisition of SbTD concepts.

Research Question 4: What influence has years of experience on teachers’ acquisition of SbTD concepts?

Table 5 revealed the pre-test and post-test mean scores as well as the difference in mean for teachers with different years of teaching experience. The post-test mean score for less experienced teachers is 36.40 which is

less than that of experienced teachers with a mean score of 41.13. Also experienced teachers had a slightly higher mean gain of 31.00 than less experienced teachers with a mean gain of 28.7 which is an indication that the acquisition of SbTD concepts was also influenced by the number of years a teacher had taught.

Table 5: Pre-test, post-test mean scores and their mean differences of the influence of years of experience on teachers' acquisition of SbTD concepts.

Variables	Number	Pre-test Mean	Post-test Mean	Mean difference
1-9 years less experienced teachers	54	7.70	36.40	28.7
10 years above experienced teachers	30	10.13	41.13	31.00

Hypothesis 1: There is no significant influence of training on teachers' acquisition of SbTD concepts.

Table 6 showed the t-test analysis of the influence of training on teachers' acquisition of SbTD concepts. The results from Table 6 indicated that the t-calculated (15.54) was greater than the critical t-value of (1.96). Therefore, the null hypothesis of no significant influence of training on teachers' acquisition of SbTD concepts was rejected. This means that there is a significant influence of training on the acquisition of the SbTD concepts.

Table 6: t-test analysis of the influence of training on teachers' acquisition of SbTD concepts.

Variables	N	\bar{D}	$\sum D$	$\sum D^2$	Df	t- cal	t-crit	Decision
Teachers	84	32.69	2746	120606	82	15.54	1.96	Rejected H_{01}
P < 0.05								

Hypothesis 2: There is no significant influence of gender on the acquisition of SbTD concepts with training

The t-test of the influence of gender on the acquisition of SbTD concepts shown in Table 7 revealed that the t-calculated value of 1.84 was less than the t-critical value of 1.96. The null hypothesis of there is no significant influence of gender on the acquisition of SbTD concepts was therefore accepted.

Table 7: t-test analysis of the influence of gender on teachers' acquisition SbTD concepts.

Gender	N	X	SD	Df	t- cal	t-crit	Decision
Male	40	32.14	11.50	82	1.84	1.96	Accepted H ₀₂
Female	44	27.75	10.20				P < 0.05

Hypothesis 3: There is no significant effect of qualification on teachers' acquisition of SbTD concepts with training.

The t-test analysis on Table 8 revealed that the t-calculated value of 6.31 was greater than the t-critical value of 1.96, therefore the null hypothesis of no significant effect of qualification on teachers' acquisition of the SbTD concepts was rejected. This shows that there is a significant effect of qualification on teachers' acquisition of SbTD concepts with training.

Table 8: t-test analysis of the effect of qualification on teachers' acquisition of SbTD concepts.

Qualification	N	X	SD	df	t- Cal	t-Crit	Decision
Teachers with NCE	62	24.7	12.30	82	6.31	1.96	Rejected H ₀₃
Teachers with B.Ed. and above	22	40.55	9.20				P < 0.05

Hypothesis 4: Teachers' years of experience will not significantly affect their acquisition of SbTD concepts after training.

Table 9 revealed a calculated t-value of 0.98 which was less than the t-critical value of 1.96. Therefore, the null hypothesis of no significant effect of years of experience on the acquisition of SbTD concepts after training was upheld.

Table 9: t-test analysis of the effect of teachers' years of experience on the acquisition of SbTD concepts.

Experience	N	X	SD	df	t- cal	t-crit	Decision
Less Experienced	54	28.7	13.0	82	6.31	1.96	Upheld H ₀₄
Experienced	30	31.0	8.50				P < 0.05

7. Discussion

Findings from research questions revealed that the training influenced the acquisition of SbTD concepts among teachers. This underscores the importance of training in building up teachers competencies in the profession. The corresponding hypothesis also revealed that the effect of training on teachers' acquisition of the SbTD concepts was significant. This justifies the efforts of the authors in [6:ii] in developing a school based Teacher Development Programme for UBE teacher. "Continuous professional development consists of reflective activity designed to improve an individual's attributes, knowledge, understanding and skills; it supports individual needs and improves professional practice" as ascertained by the authors in [3:4]. The result of this study will therefore provide useful information on the various stakeholders on the need to sustain such professional development training programmes for teachers. The UBE programme will further be strengthened realizing that such training programme impacted positively on the teachers. Teachers on their own part will be willing to engaged in training programme meant for their professional development.

In Nigeria, the author in [2:2] reported that "most of failures of the UBE Scheme were preponderance of untrained teachers"... the authors in [3:4] earlier cited the General Teaching Council for Northern Ireland, who are responsible for teacher education competencies also lay emphasis on teachers professional development that "those who are honoured with the title and status of teacher will be knowledgeable, skillful and reflective practitioners who will be concerned with the purposes and consequences of education, as well as what might be called technical proficiency".

Analysis of research question 2 showed that the mean difference between male and female teachers was slightly different after training in favour of the female teachers. However, this difference was not significant. This reflects one of the objectives of SbTD which is to develop a framework for gender sensitive in-service training provision.

Result from research question 3 showed that the qualification of teachers affect the acquisition of SbTD

concepts. Analysis of the corresponding hypothesis also indicated a significant effect of qualification on the acquisition of concepts i.e. teachers with B.Ed and above performed better than their NCE counterparts. It has been proven in certain circles that qualification of teachers in terms of certification strongly determined their professional competences and therefore support the Federal Government stance on the continual professional development of teachers as stated by the author in [5:38]. Therefore the presence of teachers with qualification lower than NCE in our UBE schools as revealed by authors in [1:49] is worrisome.

Findings from Table 4 revealed that the experienced teachers in terms of years on the service acquired more SbTD concepts than the less experienced teachers. The t-test analysis however, showed a non-significant effect of the years of experience on teachers' acquisition of SbTD concepts. This indicates that the SbTD programme provides a framework for experienced and less experienced teachers to compete favourably. This supports the assertion made by the authors in [3:5] that "reflective practice supports initial training students, newly qualified teachers, teaching assistants and experienced professionals in satisfying performance standards and competencies".

8. Conclusion

Teachers have been identified as the hub of any educational system and it is upon their number, quality, efficiency and effectiveness that the success of the educational system and indeed, the future of the nation depend. It is also recognized among educationists that continuing professional development of teachers is very vital to their improved practice. School-based Teacher Development (SbTD) seeks to address the lack of professional development opportunities for basic education teachers in general. The SbTD training programme in no doubt impacted positively on both less experienced and experienced, male and female teachers in the acquisition of the SbTD concepts. This will in turn influence the learning outcomes in our Basic Education schools.

9. Recommendations

Based on the findings of this study, the researchers hereby put forward the following recommendations.

- Training and retraining of teachers should be embarked upon by government and relevant stakeholders for the professional development and growth of teachers.
- The SbTD programme should be extended to all the LGAs for uniformity of standards.
- Both male and female teachers should be encouraged to participate in the SbTD training programmes by eliminating gender disparity.

10. Limitation of the study

The authors in this study acknowledged that carrying out an experimental work of this nature is not without challenges. This study was limited by the following factors.

- Design of the study: The one group pretest-design lacks a comparison group to ascertain whether the

outcome of the test was due largely to the effect of the training. Other uncontrolled threats to internal validity may also have accounted for the result of the study.

- Sample size: Although, experimental designs require the use of small and manageable sample, the use of only 84 teachers will limit the generalizability of the study.
- The duration of the study (2 weeks) also constitutes a limiting factor.

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