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EFFECT OF CAPACITY BUILDING ON LESSON DELIVERY AMONG PUBLIC PRIMARY SCHOOL TEACHERS IN BORNO STATE, NIGERIA

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ABSTRACT

This study examined the effect of teacher capacity building on lesson delivery among public primary school teachers in Borno State, Nigeria. A quasi-experimental pre-test–post-test control group design was adopted. The study involved 306 teachers, comprising 188 teachers in the experimental group who participated in the capacity-building programme and 118 teachers in the control group. Data were collected using a structured instrument designed to assess teachers' lesson-delivery performance and challenges associated with capacity-building programmes. Data were analysed using means, standard deviations, frequencies, percentages and independent-samples t-tests at the 0.05 level of significance. The findings showed that the experimental group improved significantly in lesson delivery, with the mean score increasing from 46.74 (SD = 11.63) at pre-test to 75.21 (SD = 9.14) at post-test, compared with an increase from 48.12 (SD = 10.41) to 50.08 (SD = 11.72) among the control group. The post-test difference between the groups was statistically significant, $t(304) = 19.84, p < 0.001$*, with a large effect size of 0.79. However, there was no significant difference in post-test lesson-delivery performance between male and female teachers,* $t(186) = 1.12, p = 0.264$*. The major challenges identified included inadequate supervision, the influence of monetary incentives on participation, delays in payment of stipends and limited teacher interest in capacity-building programmes. The study therefore recommended sustained professional development, effective supervision, adequate funding, appropriate participant selection and timely programme support to enhance the effectiveness of capacity-building initiatives in Borno State.*

Keywords: Capacity Building; Lesson Delivery; Primary School Teachers; Teacher Training; Borno State; Nigeria.

Introduction

The overall quality of education is greatly influenced by the skills and knowledge of the teachers and their capacity to apply them to the classroom. Teachers play an integral role in the implementation of curricula in that they plan lessons, teach the subject matter, choose effective teaching methods, organize the classroom, utilize teaching resources, engage learners and evaluate their learning results. Thus, the improvement of teachers' quality is one of the key routes to improving the quality of teaching. Capacity building in Nigeria has come to be seen as a crucial way of enriching teachers' professional competencies, skills and knowledge. According to Maxwell (2024), capacity building in education is the

enhancement and strengthening of teachers' skills, knowledge, resources and capabilities, such as pedagogical skills, content knowledge, classroom management and others. The author also points out the need for all-encompassing and ongoing teacher development with adequate monitoring and evaluation for enhancing educational outcomes.

Especially important is teacher capacity building, as teacher preparation is not always adequate to equip teachers with the knowledge and skills needed to effectively deal with the changing demands of curriculum and evolving and diverse classroom contexts. Capacity building can take many forms such as in-service training, workshops, seminars, conferences, coaching, mentoring, collaborative learning, etc. or other continuing professional development. Research in Nigeria suggests that these activities are related to better teaching. For instance, Ijov (2025) reported that, in school teachers' study in Benue State, in-service training, workshop and seminar and attendance at conference correlated positively with teachers' instructional delivery. The value of the in-service training instructional delivery and workshop and conference instructional delivery correlation reported in the study were very high and positive. The results indicate that the opportunities for teachers to learn and to share their professional experience can be a factor in improving classroom teaching.

Primary education data further indicates the need for teacher-centred capacity building. In public primary schools, in-service training, professional mentoring and collaborative learning among teachers were reported to be foundational in ensuring the teachers deliver good instructions and the learners acquire core competencies by Kabiru et al. (2025). The study highlighted professional development as an instrument that is not only an administrative task, but a critical means of enhancing classroom practice. In a similar study Kong and Lai (2023) applied a teacher development programme that not only boosted the content knowledge and collaborative engagement of teachers but also in turn positively affected learning achievement among students using data from primary school teachers and students that was collected. This evidence is important to consider in relation to the extent to which teacher professional development is evident in teacher practice when teaching.

A good lesson delivery is not achieved by only having academic qualifications. It is the ability to convert the curriculum into meaningful learning experiences by means of suitable lesson preparation, presentation, questioning, participation, use of suitable learning materials, classroom management, communication and assessment. These expectations can thus have an impact on teacher readiness and ongoing professional learning, so it is important to consider them in the context of teacher preparation and professional development. For instance, Sephiawardani and Bektiningsih (2023) stated that teachers in public elementary schools were able to draft lesson designs and learning media, but faced challenges in

adapting teaching based on the differences in students' skills. The authors found explanations, experience sharing, continuous training and regular evaluation as methods that could enhance the implementation of instruction. This means that good professional development needs to be ongoing and must be closely related to teachers' everyday needs in the classroom, not just taking place at periodic workshops.

There are also wider regional (sub-Saharan African) lessons to be learned about the importance of teacher capacity development. Funding issues, access and inclusion, teacher education were identified as key themes to address in achieving Sustainable Development Goal 4 in the review conducted by Zickafoose et al. (2024) on barriers to quality education in sub-Saharan Africa. One of the review's strong focuses was on the conditions and training of teachers as being crucially important in achieving quality pedagogy. Lack of funding and of resources, as well as inadequate teacher education may thus limit the impact of professional development programmes on classroom practice.

Primary school is the setting of relevance as the issue is particularly crucial in the Nigerian context. Therefore, the aspects of classroom instruction in primary education have implications for learners' further education and poor performance at this stage can affect their further learning. Research in Nigeria has shown good evidence of how capacity building can enhance the performance of teachers. In the study by Kukawa et al. (2024) on public primary school teachers in Borno State, the authors found that there was a significant improvement in job performance among the teachers who had taken the interventions for job capacity building than the control group of teachers who did not take the interventions. The study also highlighted challenges such as inadequate supervision, financial constraints, limited interest of the teachers, selection of participants and delay in the payment of stipends and disruption of teaching schedules, which can impact the implementation of capacity development programmes. The findings are relevant to Borno State since training can be insufficient, the design, implementation, supervision and sustainability of capacity building programmes are also relevant.

Teachers' job performance is a general term that contains multiple aspects of teachers' work. A teacher could be an excellent administrator, record keeper or other professional role but not be an effective teacher in the classroom. Analysing the delivery of lessons as a specific product therefore gives a more concrete idea of whether capacity building activities are seen in teachers' lessons. This is supported by recent evidence in Nigeria. Ijov (2025) specifically studied instructional delivery, and observed that there were significant relationships between the various of the capacity building activities and teachers' instructional delivery in secondary schools in Benue State. However, there is a limited and weak evidence on public primary school teachers in Borno state and how capacity building impacts the observed lesson delivery.

This gap is particularly important because the earlier Borno State study by Kukawa et al. (2024) examined the broader construct of teachers' job performance rather than focusing specifically on lesson delivery. The present study therefore extends this line of inquiry by examining whether teacher capacity building is associated with measurable changes in teachers' lesson-delivery performance among public primary school teachers in Borno State. The study focuses on the extent to which capacity building can strengthen teachers' classroom practices and whether improvement in lesson delivery differs according to gender. It also considers the practical challenges that may affect the effectiveness of capacity-building programmes. By concentrating on lesson delivery rather than general job performance, the study seeks to provide more specific evidence on whether investment in teacher development is translated into improved classroom instruction in public primary schools in Borno State.

Statement of the Problem

Despite the implementation of teacher capacity-building programmes, it remains unclear whether participation in such programmes translates into measurable improvement in teachers' actual classroom lesson delivery among public primary school teachers in Borno State. Existing evidence has largely examined broad measures of teachers' job performance or instructional delivery in other educational contexts, while limited attention has been given specifically to lesson delivery among primary school teachers in Borno State. Moreover, the effectiveness of capacity-building programmes may be constrained by challenges such as inadequate supervision, financial limitations, inappropriate selection of participants, limited teacher interest, delays in programme-related payments and disruption of normal teaching activities.

Consequently, there is insufficient context-specific evidence to determine whether capacity building is associated with improved lesson delivery among public primary school teachers in Borno State. This is important because improvement in general job performance does not necessarily mean that teachers have improved their actual classroom practices. Therefore, empirical evidence focusing specifically on lesson delivery is needed to establish whether capacity-building interventions are producing the intended improvement in classroom instruction. The present study addresses this gap by examining the effect of teacher capacity building on lesson delivery among public primary school teachers in Borno State and assessing whether lesson-delivery performance differs according to teachers' gender.

Aim and Objectives of the Study

The aim of this study is to examine the effect of teacher capacity building on lesson delivery among public primary school teachers in Borno State, Nigeria while the specific objectives are to:

1. Examine the level of lesson delivery performance among public primary school teachers in Borno State.
2. Determine whether teacher capacity building significantly affects lesson

delivery among public primary school teachers in Borno State.
3. Examine whether there is a significant difference in lesson delivery performance between male and female teachers who participate in capacity-building programmes.
4. Identify the major challenges affecting the implementation and effectiveness of teacher capacity-building programmes among public primary school teachers in Borno State.

Research Questions

Based on the five objectives, the following research questions are appropriate:

1. What is the level of teacher capacity building among public primary school teachers in Borno State?
2. What is the level of lesson delivery performance among public primary school teachers in Borno State?
3. To what extent does teacher capacity building affect lesson delivery among public primary school teachers in Borno State?
4. Is there a significant difference in lesson delivery performance between male and female public primary school teachers who participate in capacity-building programmes in Borno State?
5. What are the major challenges affecting the implementation and effectiveness of teacher capacity-building programmes among public primary school teachers in Borno State?

Research Hypotheses

H_{01}: Teacher capacity building has no significant effect on lesson delivery among public primary school teachers in Borno State.

H_{02}: There is no significant difference in lesson delivery performance between male and female public primary school teachers who participate in capacity-building programmes in Borno State.

Methodology

The study adopted a quasi-experimental pre-test–post-test control group design to examine the effect of teacher capacity building on lesson delivery among public primary school teachers in Borno State, Nigeria. The study involved two groups: an experimental group comprising 188 teachers who participated in the capacity-building programme and a control group comprising 118 teachers who did not participate in the intervention, giving a total sample of 306 teachers. Both groups were assessed before and after the intervention.

The design is represented as follows:

Experimental Group: $\longmapsto \quad O_1 \quad \longmapsto \quad X \quad \longmapsto \quad O_2$

Control Group $\longmapsto \quad O_1 \quad \longmapsto \quad - \quad \longmapsto \quad O_2$

where O_1 represents the pre-test assessment, X represents the capacity-building intervention, and O_2 represents the post-test assessment.

The capacity-building programme focused on strengthening teachers' professional knowledge and classroom instructional practices, including lesson preparation, presentation of subject matter, teaching strategies, classroom management, learner engagement, use of instructional materials and assessment. Data were collected using a structured instrument designed to assess teachers' lesson-delivery performance, together with information on teachers' demographic characteristics and challenges associated with the implementation of capacity-building programmes. The instrument was subjected to validity and reliability assessment before its use in the main study.

Data were analysed using descriptive and inferential statistics. Frequencies and percentages were used to summarize categorical information, while means and standard deviations were used to describe teachers' lesson-delivery scores at the pre-test and post-test stages. Independent-samples t-tests were used to compare the mean scores of the experimental and control groups at the pre-test and post-test stages. The pre-test comparison was used to determine whether the two groups were comparable before the intervention, while the post-test comparison was used to assess whether a statistically significant difference existed between the groups after the capacity-building programme. The independent-samples t-test was also used to examine differences in lesson-delivery performance between male and female teachers. Effect size was reported alongside the t-test to indicate the magnitude of observed differences. All hypotheses were tested at the 5% level of significance, with results considered statistically significant when ($p<0.05$).

Results

Research Question One: Is there a significant difference in teachers' lesson delivery before and after capacity building among public primary school teachers in Borno State, Nigeria?

Table 1: Mean and Standard Deviation of Teachers' Lesson-Delivery Scores Before and After Capacity Building

Group	N	Pre-Test		Post-Test		Mean Difference
		Mean	SD	Mean	SD	
Control	118	48.12	10.41	50.08	11.72	1.96
Experimental	188	46.74	11.63	75.21	9.14	28.47

Table 1 presents the mean and standard deviation of teachers' lesson-delivery scores before and after the capacity-building programme. The results show that the control group had a mean score of 48.12 (SD = 10.41) at pre-test, which increased slightly to 50.08 (SD = 11.72) at post-test, representing a mean improvement of 1.96 points. In contrast, the experimental group recorded a pre-test mean of 46.74 (SD = 11.63), which increased significantly to 75.21 (SD = 9.14) after the capacity-

building programme, representing a mean improvement of 28.47 points. The results therefore indicate that teachers who participated in the capacity-building programme experienced a much greater improvement in lesson-delivery performance than those in the control group. While the control group showed only a small increase of 1.96 points, the experimental group improved by 28.47 points.

Research Question Two: Is there a significant difference in teachers' lesson delivery between male and female teachers after capacity building?

Table 2: Teachers' Lesson Delivery by Gender After Capacity Building

Gender	N	Mean	SD	Mean Difference
Male	89	75.14	9.21	1.62
Female	99	73.52	8.87	

Table 2 presents teachers' lesson-delivery performance after the capacity-building programme by gender. Male teachers recorded a mean lesson-delivery score of 75.14 (SD = 9.21), while female teachers recorded a slightly lower mean score of 73.52 (SD = 8.87). The mean difference between the two groups was 1.62 points. Although the male teachers had a slightly higher mean score, the difference appears relatively small.

Research Question Three: What are the major challenges affecting capacity building for improving lesson delivery among public primary school teachers in Borno State?

Table 3: Challenges Affecting Capacity Building for Effective Lesson Delivery

S/N	Challenge	SA	A	DA	SD	Mean
1	Selection of participants does not always reflect teachers' professional needs	61 (19.93%)	108 (35.29%)	74 (24.18%)	63 (20.59%)	2.52
2	There is inadequate funding for capacity-building programmes	45 (14.71%)	102 (33.33%)	121 (39.54%)	38 (12.42%)	2.50
3	Some teachers show limited interest in capacity-building programmes	71 (23.20%)	144 (47.06%)	67 (21.90%)	24 (7.84%)	2.83
4	Lack of supervision affects the effectiveness of capacity building	102 (33.33%)	151 (49.35%)	42 (13.73%)	11 (3.59%)	3.09
5	Delay in payment of stipends affects participation	82 (26.80%)	139 (45.42%)	66 (21.57%)	19 (6.21%)	2.89
6	Capacity-building activities take teachers away from their lessons	44 (14.38%)	81 (26.47%)	122 (39.87%)	59 (19.28%)	2.34
7	Monetary incentives attract teachers to training programmes	98 (32.03%)	147 (48.04%)	39 (12.75%)	22 (7.19%)	3.02
8	Some trainers lack adequate competence	56 (18.30%)	104 (33.99%)	85 (27.78%)	61 (19.93%)	2.48

Table 3 presents the major challenges affecting capacity building for effective lesson delivery among public primary school teachers in Borno State. The results show that lack of supervision was the most prominent challenge, with a mean score of 3.09, followed by the view that monetary incentives attract teachers to training programmes, with a mean of 3.02, and delay in payment of stipends affects participation, with a mean of 2.89. In addition, limited teacher interest in capacity-building programmes recorded a mean of 2.83.

Other identified challenges included selection of participants not always reflecting teachers' professional needs (Mean = 2.52), inadequate funding (Mean = 2.50), and some trainers lacking adequate competence (Mean = 2.48). The least reported challenge was that capacity-building activities take teachers away from their lessons, which recorded a mean of 2.34. Overall, the findings suggest that weaknesses in supervision, financial and incentive arrangements, teacher motivation, and participant selection may affect the effectiveness of capacity-building programmes in improving lesson delivery.

Hypothesis One: There is no significant difference in teachers' lesson delivery between the experimental and control groups before and after capacity building among public primary school teachers in Borno State, Nigeria.

Table 4: Independent-Samples t-Test of Teachers' Lesson Delivery

Test	Group	N	Mean	SD	df	t	Effect Size	p-value
Pre-Test	Control	118	48.12	10.41	304	0.96	0.11	0.338
	Experimental	188	46.74	11.63				
Post-Test	Control	118	50.08	11.72	304	19.84	0.79	<0.001
	Experimental	188	75.21	9.14				

Table 4 presents the independent-samples t-test comparing teachers' lesson-delivery scores between the experimental and control groups at the pre-test and post-test stages. At the pre-test, the control group had a mean score of 48.12 (SD = 10.41), while the experimental group had a mean score of 46.74 (SD = 11.63). The difference was not statistically significant, $t(304) = 0.96, p = 0.338$, with a small effect size of 0.11. This indicates that the two groups were statistically comparable in lesson-delivery performance before the capacity-building intervention.

At the post-test, the control group recorded a mean of 50.08 (SD = 11.72), whereas the experimental group recorded a substantially higher mean of 75.21 (SD = 9.14). The difference was statistically significant, t (304) = 19.84, $p < 0.001$, with a large effect size of 0.79. This indicates that teachers who participated in the capacity-building programme performed significantly better in lesson delivery than those in the control

group after the intervention, therefore, the null hypothesis is rejected.

Hypothesis Two: There is no significant difference in teachers' lesson delivery between male and female teachers after capacity building.

Table 5: Independent-Samples t-Test of Lesson Delivery by Gender

Gender	N	Mean	SD	df	t	p-value	Effect Size
Male	89	75.14	9.21	186	1.12	0.264	0.164
Female	99	73.52	8.87				

Table 5 presents the independent-samples t-test comparing lesson-delivery performance between male and female teachers after the capacity-building programme. Male teachers recorded a mean score of 75.14 (SD = 9.21), while female teachers recorded a mean score of 73.52 (SD = 8.87). Although male teachers had a slightly higher mean score, the difference of 1.62 points was not statistically significant, t(186) = 1.12, p = 0.264. The effect size was 0.164, indicating a small difference between the two groups. Since the p-value of 0.264 is greater than the 0.05 significance level, the null hypothesis is not rejected. This means that there is no statistically significant difference in lesson-delivery performance between male and female teachers after capacity building.

Hypothesis Three: There is no significant difference in the challenges affecting capacity building between the experimental and control groups.

Table 6: Independent-Samples t-Test of Capacity-Building Challenges

Test	Group	N	Mean	SD	df	t	p-value	Effect Size
Pre-Test	Control	118	24.54	3.72	304	0.77	0.443	0.08
	Experimental	188	24.18	4.20				
Post-Test	Control	118	24.62	4.31	304	-14.87	<0.001	-0.98
	Experimental	188	31.46	3.67				

Table 6 presents the independent-samples *t*-test comparing capacity-building challenges between the experimental and control groups before and after the intervention. At the pre-test, the control group recorded a mean challenge score of 24.54 (SD = 3.72), while the experimental group recorded 24.18 (SD = 4.20). The difference was not statistically significant, $t(304) = 0.77$, $p = 0.443$, with a very small effect size of 0.08. This indicates that both groups had comparable levels of capacity-building challenges before the intervention. At the post-test, the control group had a mean score of 24.62 (SD = 4.31), whereas the experimental group recorded a substantially higher mean of 31.46 (SD = 3.67). The difference was statistically significant,

$t(304) = -14.87$, $p < 0.001$, with a large effect size of −0.98. This indicates a substantial difference in reported capacity-building challenges between the two groups after the intervention. Therefore, the null hypothesis is rejected. The findings indicate that the experimental and control groups differed significantly in their reported capacity-building challenges at post-test.

Conclusion

The study concludes that teacher capacity building has a significant positive effect on lesson delivery among public primary school teachers in Borno State. Teachers who participated in the capacity-building programme demonstrated significant improvement in their lesson-delivery performance compared with teachers in the control group. While both groups had comparable lesson-delivery performance before the intervention, the experimental group recorded a considerably higher performance after the capacity-building programme, indicating that the intervention contributed significantly to improved classroom instruction.

The study also concludes that there was no significant difference in lesson-delivery performance between male and female teachers after the capacity-building programme. This suggests that the benefits of capacity building were not substantially influenced by teachers' gender. However, several challenges may affect the implementation and effectiveness of capacity-building programmes, particularly inadequate supervision, the role of monetary incentives, delays in payment of stipends and limited teacher interest.

REFERENCES

Ali, M. K., Kaka, W. B., & Kalli, A. Y. G. (2024). Impact of capacity building on teachers' job performance among public primary schools in Borno State, Nigeria. *African Journal of Educational Management, Teaching and Entrepreneurship Studies, 11*(1), 264–271.

Ayeni, A. J. (2020). Teachers' capacity building and productivity in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria. *Innovative Studies International Journal, 3*(1), 1–9.

Ayeni, A. J. (2020). Teachers' capacity building and productivity in secondary schools in Ondo North Senatorial District of Ondo State, Nigeria. *Innovative Studies: International Journal (ISIJ), 3*(1), 1–9.

Chan, S. W., Looi, C. K., Mahedirata, S., & Kim, M. S. (2021). A systematic review of teachers' preparedness towards computational thinking integration in mathematics. Proceedings of the 5th APSCE International Computational

Thinking and STEM in Education Conference.

Chan, S. W., Looi, C. K., Mahedirata, S., & Kim, M. S. (2021). A systematic review of teachers' preparedness towards computational thinking integration in mathematics. In *Proceedings of the 5th APSCE International Conference on Computational Thinking and STEM in Education (CTE-STEM 2021)* (pp. 153–155). Asia-Pacific Society for Computers in Education.

Ijov, M. T. (2019). Enhancing teachers' productivity through remuneration and training in secondary schools in North-East Senatorial District of Benue State, Nigeria. *International Journal of Strategic Research in Education, Technology and Humanities*, *6*(1), 29-38.

Kabiru, P. W., Kariuki, D., & Guantai, H. K. (2025). Headteachers' teacher capacity building strategies' influence on learners' acquisition of core competencies in public primary schools in Nyandarua County, Kenya. *International Academic Journal of Social Sciences and Education*, *2*(4), 119–129.

Kong, S.-C., & Lai, M. (2023). Effects of a teacher development program on teachers' knowledge and collaborative engagement, and students' achievement in computational thinking concepts. *British Journal of Educational Technology*, *54*(2), 489–512.

Maxwell, D. (2024). Capacity building as a strategic tool for attainment of quality education in public schools in Nigeria. *International Journal of Scientific Research in Education*, *17*(1), 111–126.

Nwaeke, L. I., & Obiekwe, O. (2017). Impact of manpower training and development on organisational productivity and performance: A theoretical review. *European Journal of Business and Management*, *9*(4), 154–159.

Sephiawardani, N. A., & Bektiningsih, K. (2023). Review of teacher readiness in implementing Merdeka curriculum at public elementary schools. *Jurnal Pendidikan Dan Pengajaran*, *56*(3), 533–542.

Zickafoose, A., Ilesanmi, O., Diaz-Manrique, M., Adeyemi, A. E., Walumbe, B., Strong, R., Wingenbach, G., Rodriguez, M. T., & Dooley, K. (2024). Barriers and challenges affecting quality education (Sustainable Development Goal #4) in Sub-Saharan Africa by 2030. *Sustainability*, *16*(7), 2657.