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Professional Development as a Predictor of Teachers' Productivity in Public Secondary Schools in Bayelsa and Delta States

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ABSTRACT

This study investigated professional development as a predictor of teachers' productivity in public secondary schools in Bayelsa and Delta States. The study adopted an ex-post-facto design using descriptive and correlational methods. The population comprised 20,096 teachers and principals from 644 public secondary schools. A sample of 741 participants—655 teachers and 86 principals—was selected using a multi-stage sampling technique. Data were gathered through two researcher-developed instruments: The Teacher Professional Development Questionnaire (TPDQ) and the Teachers' Productivity Questionnaire (TPQ), both validated by experts and found reliable with Cronbach Alpha values of 0.74 and 0.83, respectively. Descriptive and inferential statistics, including mean, standard deviation, Pearson product-moment correlation, t-test, and coefficient of determination, were used for data analysis at the 0.05 significance level. Findings revealed no significant differences between Bayelsa and Delta States in the types of professional development programmes or levels of teachers' productivity. Additionally, no significant relationship was found between professional development and teachers' productivity. These results suggest that while professional development opportunities exist, their effectiveness in improving productivity may be hindered by misalignment with classroom realities and systemic challenges. Based on these findings, the study recommends the following: (1) State Ministries of Education in Bayelsa and Delta States should develop need-based, subject-specific, and practical professional development programmes aligned with classroom challenges; (2) the Teachers' Registration Council of Nigeria (TRCN) should enforce and monitor continuous professional development (CPD) as a compulsory and sustained activity; and (3) State Universal Basic Education Boards (SUBEB) should address systemic barriers such as poor infrastructure, large class sizes, and inadequate administrative support to enhance the impact of profession

Keywords: Professional Development, Teachers' Productivity, Public Secondary Schools

INTRODUCTION

The quality of education in any nation is largely dependent on the productivity of its teachers. Teachers' productivity refers to the effectiveness and efficiency with which teachers carry out their instructional and professional responsibilities. It involves the ability to deliver quality instruction, manage classroom dynamics, engage students meaningfully, and meet diverse learning needs. In the context of secondary schools, teachers' productivity can be evaluated through their lesson planning and preparation, classroom management, student engagement, provision of feedback, and overall instructional impact. A productive teacher is one who consistently fosters a positive learning environment, supports student growth, and drives academic success.

Teacher productivity is an important aspect of education, as it refers to the efficiency and effectiveness with which teachers perform their duties so as to achieve desired outcomes (Kafetzopoulos & Karagianni, 2018). The principle of teacher productivity can be evaluated through both quantitative and qualitative methods, including student performance metrics, classroom observation data, self-reflection surveys and feedback from peers or superiors. Kinnunen *et al.* (2018) asserted that students whose teachers were highly productive demonstrated significantly better academic achievement compared to those with less productive teachers. Nkedishu (2022) asserts that administrators who recognise and address the needs of teachers can inspire them to increase their productivity. There are various factors that affect teachers' productivity.

However, during interactions and informal discussions with teachers from a cross-section of secondary schools in Bayelsa and Delta states in the course of departmental meetings, union meetings, sports meetings, workshops, seminars and promotion exercises, it was speculated that teachers' productivity appeared to be declining considering the observations made by these teachers which includes; increasing absenteeism and lateness from school and classes, inadequate preparation of lesson notes, ineffective use of scheme of work, mishandling of class diaries and registers, classroom mismanagement, failure to use appropriate teaching aids, engagement in other businesses like selling of goods inside and outside the school premises, ineffective supervision and monitoring of students and frequent disagreement between principals and teachers and among others. These problematic behaviours observed among teachers suggest that many of them are faced with significant challenges that impede their productivity, professional conduct and commitment to teaching. These challenges appear to undermine their capacity to fulfil their duties as educators and deliver effective instruction to their students. These problems teachers' productivity in Bayelsa and Delta States. One of such factors in this study was teacher professional development.

Teacher professional development is defined as an ongoing learning and growth opportunity for teachers to improve their teaching practices. includes activities such as mentoring, workshops, coaching, conferences, self-reflection and study groups that help educators become more reflective practitioners as well as better communicators with students and colleagues. Teacher professional development can be achieved individually or collaboratively through online platforms or face-to-face events. It should also concentrate on the individual requirements of every teacher while having a common aim of improving overall educational performances at all stages, which include primary/elementary school up to tertiary/higher education levels. Teacher Professional Development (TPD) is an ongoing process of learning and growth undertaken by teachers to develop the skills, knowledge, attitudes and competencies that are necessary for strong teaching practices (Malunda, 2018). It involves engagements such as attending conferences or courses relevant to their field, participating in digital professional development programmes, undertaking research-based practice improvement projects, engaging with mentor teachers in peer observation schemes and monitoring their progress through self-assessment and evaluation procedures. Through professional development, teachers can improve both their instructional effectiveness and student outcomes. Professional development allows teachers to continuously learn, broaden their understanding and acquire new abilities. This personal growth and development altogether benefits teachers and positively impacts their students.

Statement of the Problem

The quality of education in any nation is largely dependent on the productivity of its teachers. In the context of public secondary schools in Bayelsa and Delta States, teacher productivity has come under scrutiny due to observable declines in performance and professional conduct. Reports from departmental meetings, union gatherings, and workshops reveal that teachers in these states are increasingly exhibiting behaviours that undermine their effectiveness, such as lateness, absenteeism, inadequate lesson preparation, poor classroom management, lack of instructional materials, and even engaging in personal businesses during school hours. These troubling trends raise concerns about the ability of teachers to deliver quality instruction and contribute meaningfully to student academic achievement. Existing research confirms that teacher productivity is a key factor influencing student learning outcomes (Zuniga-Teran et al., 2018; Kinnunen et al., 2018). Despite this, many teachers appear to struggle with maintaining professional standards, which may be linked to insufficient or ineffective professional development. Professional development is intended to enhance teachers' instructional skills, subject knowledge, and overall effectiveness. However, in Bayelsa and Delta States, it is unclear whether the types, frequency, and relevance of professional development programmes available to teachers are adequate to meet their evolving classroom challenges. Furthermore, the extent to which professional development impacts teacher productivity in these states remains uncertain. This study, therefore, seeks to investigate professional development as a predictor of teachers' productivity in public secondary schools in Bayelsa and Delta States.

Research Questions

- 1. What is the difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools?
- 2. What is the difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools?
- 3. What is the relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States?

Hypotheses

The following hypotheses were formulated and tested.

- 1. There is no significant difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools?
- 2. There is no significant difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools?
- 3. There is no significant relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States.

Method

This study is an *ex-post-facto* research design of the descriptive and correlational method. The population of this study consisted of 14,745 teachers and 479 principals from Delta State and 4,707 teachers and 165 principals from Bayelsa State, making it a total of 20,096 teachers and principals from 644 public secondary schools in Bayelsa and Delta States obtained from the Ministry of Basic and Secondary Education of the respective states in the 2023/2024 academic session. The sample for this study comprised a total of 741 participants, including principals and teachers from Bayelsa and Delta States. From Delta State, the sample included 418 teachers and 52 principals, while Bayelsa State contributed 237 teachers and 34 principals. The multi-stage sampling technique was adopted in selecting the sample for this study. This study employed two self-developed research instruments, the "Teacher Professional Development Questionnaire" (TPDQ) and the "Teachers Productivity Questionnaire" (TPQ). The Teacher Professional Development Questionnaire (PITPDQ) consisted of three sections: Sections A and B. Section A was structured to collect respondents' (teachers) personal data, such as state. Section B focused on addressing indices of teacher professional development with ten (10) items. In the instrument, the respondents were instructed to carefully read each statement and indicate their level of agreement or disagreement by ticking the appropriate box on a modified five-point to a four-point Likert scale. The scale was abbreviated as SA (Strongly Agree), A (Agree), D (Disagree) and SA (Strongly Disagree), with corresponding numerical values of 4, 3, 2 and 1, respectively.

The second research instrument titled "Teachers Job Productivity Questionnaire" (TPQ) consisted of two sections. Section A of the Teachers Job Productivity Questionnaire (TPQ) consists of 25 items, and it was employed to obtain data from school principals, where the respondents were also requested to indicate their opinion on an adapted and modified five-point Likert scale of SA (Strongly Agree), A (Agree), D (Disagree) and SA (Strongly Disagree), with corresponding numerical values of 4, 3, 2 and 1, respectively. Two experts from the Department of Educational Management and Foundations from Delta State University, Abraka, scrutinised the instrument items for relevance, adequacy and clarity, and appropriateness of language and response patterns pertinent to the study. Their feedback, adjustments and comments were incorporated before finalising the instruments. The reliability of the instruments was established by distributing them randomly to 30 teachers and 30 school principals selected from 10 public secondary schools outside the sampled schools. The data collected from this process was then compiled and utilised to calculate the reliability using Cronbach Alpha, resulting in values of 0.74 and 0.83 for the Teacher Professional Development Questionnaire (TPDQ) and the Teachers Job Performance Questionnaire (TJPQ), respectively. The researcher, assisted by five trained research assistants, visited the sampled schools and distributed the questionnaires to the teachers and principals. Out of the 741 questionnaires distributed, 696 were retrieved, representing a 97.5% return rate, and were subsequently used for data analysis. Data were analysed using mean, standard deviation, coefficient of determination, t-test, and Pearson product moment. All hypotheses were tested at the 0.05 level of significant.

Results

Research Question 1: What is the difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools?

Table 1: The difference	e between Bayelsa and D	elta States on types of p	professional developmen	t programmes predominan	t in public secondary
schools					

S/N	Types of professional	Bayels	a (N=259)		Delta (1	N=437)		Bayels	a & Delta	(N=696)
	development programmes	X1	SD1	R	X2	SD2	R	X	SD	R
1.	Regular in-service training, workshops and seminars are organized for teacher professional development	2.19	1.01	D	1.87	1.01	D	1.94	1.01	D
2.	The school provides professional development sessions for teachers	1.98	.80	D	1.68	.82	D	1.75	.83	D
3.	Teachers are supported in pursuing external professional development opportunities	2.09	.82	D	2.20	.84	D	2.17	.83	D
4.	In-service teacher training positively impact classroom instruction	3.11	.81	A	3.47	.56	А	3.39	.65	А
5.	Teachers fund their own professional development	3.48	.77	А	3.57	.64	А	3.55	.67	А
6.	Teacher professional development programmes are government-sponsored	1.88	.80	D	2.21	.87	D	2.13	.86	D
7.	Workshops, seminars and mentoring programmes motivate teachers to engage in higher professional development activities	3.11	.84	Α	3.37	.69	Α	3.31	.73	Α
8.	Instructional coaching is readily available to teachers seeking support	2.05	.75	D	1.90	.88	D	1.94	.85	D

Average m	nean	2.54	.79	А	2.57	.78	D	2.56	.79	А	
10.	Access to professional development opportunities leads to increased teacher productivity	3.30	.57	A	3.47	.59	D	3.43	.59	A	
9.	Teachers are exposed to online professional development programmes	2.22	.80	D	1.98	.91	D	2.04	.88	D	

Keys: X = Mean, SD = Standard Deviation, R= Remark, A = Agree, D = Disagree

Table 1 shows the analysis of the mean and standard deviation of types of professional development programmes in public secondary schools. The result shows that respondents from both Bayelsa and Delta States agreed on some aspects while disagreeing on others. Both states agreed that inservice teacher training positively impacts classroom instruction, that teachers fund their own professional development and that workshops, seminars and mentoring programmes motivate teachers to engage in further development, with mean scores ranging from 3.11 to 3.57. However, they disagreed on the availability of regular in-service training, school-organised professional development sessions, support for external development opportunities, government sponsorship of such programmes, instructional coaching and exposure to online professional development, with mean scores below the 2.50 benchmark, indicating a lack of structured support in these areas. When the data from both states were combined, the results remained similar, with respondents agreeing on the positive impacts of professional development activities but disagreeing on the availability of organised and supported opportunities. The average mean scores of 2.54 for Bayelsa, 2.57 for Delta, and 2.56 for both states combined show no significant difference between the two states in terms of the types of professional development programmes prevalent in public secondary schools.

Research Question 4: What is the difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools?

The difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools is as presented in Table 4.5 Table 4.5

S/N	Level of teachers' productivity	Bayelsa	a (N=259)		Delta (1	N=437)		Bayelsa & Delta (N=696)		
		X1	SD1	R	X2	SD2	R	X	SD	R
1.	Knowledge of principles of teaching	3.48	.64	А	3.46	.61	А	3.46	.62	А
2.	Knowledge of concepts of teaching	3.44	.64	А	3.53	.50	А	3.50	.54	А
3.	Good knowledge of lesson notes preparation with clearly stated behavioural objectives	3.37	.68	А	3.60	.63	А	3.53	.65	Α
4.	Knowledge of subject content	3.55	.50	А	3.65	.51	А	3.62	.51	А
5.	Use of textbooks while planning lesson.	3.33	.620	А	3.49	.61	А	3.44	.62	А
6.	Making use of appropriate teaching methods for different topics	3.22	1.05	А	3.34	.82	А	3.30	.89	А
7.	Quality knowledge of communication skills	3.40	.79	А	3.47	.66	А	3.45	.70	А
8.	Knowledge of improvisation in teaching	3.22	1.01	А	3.17	.90	А	3.18	.92	А
9.	Classroom management	3.40	.63	А	3.59	.61	А	3.53	.62	А
10.	Demonstration of competence in classroom instruction	3.34	.68	А	3.49	.56	А	3.44	.60	А
11.	Knowledge of time management techniques	3.42	.70	А	3.46	.61	А	3.45	.63	А
12.	Knowledge of curriculum content	3.42	.57	А	3.56	.55	А	3.52	.56	А
13.	Professional knowledge of the ethics of teaching	3.25	.94	А	3.32	.81	А	3.30	.85	А

14.	Response to students' verbal and non-verbal cues.	3.14	.86	А	3.31	.73	А	3.26	.77	А
15.	Ability to provide solutions to problems	3.29	.66	А	3.50	.61	А	3.43	.63	А
16.	Good presentation of lessons	3.50	.58	А	3.61	.63	А	3.58	.61	А
17.	Working collaboratively with other staff.	3.18	.78	А	3.35	.76	А	3.30	.77	А
18.	Evaluating students' performance in an objective manner	3.42	.70	А	3.50	.69	А	3.47	.69	А
19.	Recording timely the results of all assessments	3.40	.57	А	3.35	.67	А	3.37	.64	А
20.	Using students assessment data to guide changes in instruction	3.22	.69	А	3.39	.75	А	3.34	.73	А
21.	Timely covering of scheme of work	3.48	.57	А	3.32	.75	А	3.37	.70	А
22.	Students' improved academic outcome	3.37	.74	А	3.42	.61	А	3.40	.64	А
23.	Demonstrating timely attendance to class	3.25	.90	А	3.22	.89	А	3.23	.89	А
24.	Participating in staff activities according to school policy	3.29	.72	А	3.37	.70	А	3.35	.70	А
25.	Excessive unprofessional conduct of teachers	2.29	1.10	D	2.00	.89	D	2.08	.96	D
Average r	nean	3.30	.73	А	3.37	.68	А	3.35	.69	А

Keys: X = Mean, SD = Standard Deviation, R= Remark, A = Agree, D = Disagree

Table 2 shows the mean and standard deviation of the level of teachers' productivity in public secondary schools. The result shows that respondents from Bayelsa and Delta States rated are high on all the items with mean scores above the benchmark of 2.50 except for item 25, which respondents rated low with mean scores less than the 2.50 benchmark. The average mean score of 3.30, 3.37 and 3.35 for Bayelsa State, Delta State and both states combined revealed that there is no difference between Bayelsa and Delta States in the level of teachers' productivity in public secondary schools.

Research Question 3: What is the relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States?

Table 5. The relationship between protessional development and teachers productivity in public secondary school in Dayelsa and Detta Sta	Table 3: '	The relationship	between	professional o	developmen	t and teachers	productivit	y in p	ublic secondary	y school in Ba	yelsa and Delta St	tates
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Variable	Bayelsa	(N=259)	Delta (N=	437)	Bayelsa (N=696)	&	Delta	R	r ²	r ² %	Remark
	X1	SD1	X2	SD2	X	SD		.005	000	00	Positive
Professional development	2.54	.79	2.57	.78	2.56	.79					relationship
Teachers' productivity	3.30	.73	3.37	.68	3.35	.69					

Keys: X = Mean, N = Number, SD = Standard Deviation, R = Computed r, r = Correlation Coefficient, $r^2 =$ proportion of variance.

Table 3 show the relationship between professional development and teachers' productivity in public secondary schools in Bayelsa and Delta States. The result shows Bayelsa State has a mean score of 2.54, SD = .79 for teachers' professional development and a mean score of 3.30, SD = .73 for teachers' productivity. Also, Delta State has a mean score of 2.57, SD = .78 for teachers' professional development and a mean score of 3.37, SD = .68 for teachers' productivity. When both states were combined, they had a mean score of 2.56, SD = .79, for teachers' professional development and a mean score of 3.37, SD = .68 for teachers' productivity. State has a mean score of 2.56, SD = .79, for teachers' professional development and a mean score of 3.35, SD = .69, for teachers' productivity. The computed r value of .005 shows that there is a positive relationship between professional development and teachers' productivity in public secondary schools in Bayelsa and Delta States. The r² value of .000 revealed that teachers' professional development relates to teachers' productivity in public secondary schools in Bayelsa and Delta States by 0%.

Hypotheses Testing

Hypothesis 1: There is no significant difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools?

Table 4: The difference between Bayelsa and Delta States on types of professional development programmes

Variables	Ν	X	SD	Df	t-cal.	t-crit.	Remark
Bayelsa	259	2.54	.79	610	53	<u>+</u> 1.96	Not significant
Delta	437	2.57	.78				

Level of significance = 0.05

Keys: Mean = X, N = Number, SD = Standard Deviation, Df= Degree of freedom, t-cal.= t-calculated, t-crit.=.t-critical.

Table 4 show t-test analysis on difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools. The result shows mean of 2.54, SD = .79 for Bayelsa State and mean of 2.57, SD = .78 for Delta State. t-calculated value was -.53, is less than t-critical was ± 1.96 with df of 610 at sig. level of 0.05, the hypothesis which states that there is no significant difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools was not rejected.

Hypothesis 2: There is no significant difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools

Variables	Ν	X	SD	Df	t-cal.	t-crit.	Remark
Bayelsa	259	3.30	.73	82	59	<u>+</u> 1.96	Not significant
Delta	437	3.37	.68				

Table 5: The difference between Bayelsa and Delta States on the level of teachers' productivity is as presented

Level of significance = 0.05

Keys: Mean = X, N = Number, SD = Standard Deviation, Df= Degree of freedom, t-cal.= t-calculated, t-crit.=.t-critical.

Table 5 show t-test analysis on difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools. The result shows mean of 3.30, SD = .73 for Bayelsa State and mean of 3.37, SD = .68 for Delta State. t-calculated value was -.59, is less than t-critical was ± 1.96 with df of 610 at sig. level of 0.05, the hypothesis which states that there is no significant difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools was not rejected.

Hypothesis 3: There is no significant relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States.

Table 6: Relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States

		Teachers' Development	Professiona	l Teachers' Productivity
Teachers' Professional Development	Pearson Correlation	1		.005
	Sig. (2-tailed)			.961
	Ν	612		84
Teachers' Productivity	Pearson Correlation	.005		1
	Sig. (2-tailed)	.961		
	Ν	84		84

Key: N = Number.

Table 6 show the Pearson r between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States. The table shows that there is no significant relationship with r value of .005 and significance p=.961. Therefore, the hypothesis which states that there is no significant relationship between professional and teachers' productivity in public secondary school in Bayelsa and Delta States was not rejected.

Discussion

Types of Professional Development Programmes Predominant

Finding revealed that there is no significant difference between Bayelsa and Delta States on types of professional development programmes predominant in public secondary schools. The absence of significant differences in professional development programmes suggests both Bayelsa and Delta States may follow comparable development standards. Professional development in both states is likely influenced by national standards aiming to ensure all teachers receive equitable training opportunities. Additionally, both states may receive similar levels of funding for teacher development, leading to comparable programmes. The possibility of joint training initiatives or partnerships with educational organizations could also standardize the professional development experiences for teachers in both states, ensuring consistency in training content, delivery and frequency.

The finding that there is no significant difference in the types of professional development programmes prevalent in the two states points to the impact of overarching educational policies promoting uniformity in teacher training. According to a study by Timperley et al. (2020), effective professional development initiatives are often aligned with national educational standards, contributing to similarities in offerings across regions. Additionally, the research by Wei et al. (2019) supports the notion that professional development opportunities are frequently influenced by state policies that standardize teacher training, resulting in comparable programmes across different contexts. Moreover, a meta-analysis by Hill et al. (2021) suggests that systemic factors, including governmental initiatives, play a significant role in shaping the types of professional development programmes available, reinforcing the lack of significant differences between the two states.

Level of Teachers' Productivity

Finding revealed that there is no significant difference between Bayelsa and Delta States on the level of teachers' productivity in public secondary schools. The finding that teacher productivity does not significantly differ between Bayelsa and Delta suggests that productivity may be more universally affected by factors beyond state-specific policies. Teachers in both states likely face similar challenges, including limited resources, large class sizes, and administrative constraints, which can impact productivity uniformly. The consistency in teacher training and experience levels across both regions could further explain the similarity in productivity. In addition, the school environments, in terms of administrative support, facilities, and classroom conditions, might be alike in both states, leading to similar productivity outcomes.

The absence of significant differences in teacher productivity between Bayelsa and Delta States indicates that productivity levels may be influenced by shared challenges rather than state-specific factors. A recent study by Leithwood et al. (2020) highlights that teacher productivity is significantly affected by contextual elements such as class size, school leadership, and available resources, which may be similar across both states. Furthermore, the work of Hattie (2019) shows that while individual teacher practices are essential, systemic variables often overshadow the differences attributed to teacher characteristics, leading to comparable productivity outcomes. Additionally, a study by Sawchuk (2021) indicates that school conditions, including administrative support and collaboration among teachers, play a crucial role in shaping productivity, further supporting the notion that shared challenges can result in similar productivity levels across different states.

Professional Development and Teachers' Productivity

Finding revealed that there is no significant relationship between professional development and teachers' productivity in public secondary school in Bayelsa and Delta States. The lack of a significant relationship between professional development and productivity suggests that professional development alone may not directly translate to increased productivity. Professional development programmes may sometimes fail to address teachers' specific classroom challenges, thus limiting their practical applicability. Furthermore, if training sessions are infrequent or inconsistent, they may not provide the sustained support needed to make a measurable impact on productivity. Additionally, teachers' engagement and motivation to apply new skills can play a crucial role; if professional development is generic or lacks alignment with daily classroom needs, its effect on productivity may remain limited.

The finding that there is no significant relationship between professional development and teacher productivity indicates that the types and quality of professional development offered may not align with teachers' needs or the demands of their classrooms. A study by Wei et al. (2019) found that generic professional development programmes often fail to address specific instructional challenges teachers face, leading to minimal impact on their effectiveness. Additionally, the research conducted by Hattie (2019) emphasizes that professional development must be tailored and continuous to foster significant changes in teaching practices and productivity. This suggests that while professional development is important, its design and implementation are crucial for achieving meaningful improvements in teacher performance. Earlier, a study by Desimone (2011) had highlighted that effective professional development is characterized by coherence with teachers' existing knowledge and classroom realities. She found that professional development programmes that align with teachers' needs lead to improved student outcomes. Similarly, research by Penuel et al. (2017) reinforces this notion by showing that professional development should not only focus on content knowledge but also on pedagogical strategies that are applicable in the classroom. Their findings indicate that when professional development is context-specific and includes collaboration among educators, it has a greater positive impact on teacher productivity and student learning.

Conclusion

This study examined professional development as a predictor of teachers' productivity in public secondary schools in Bayelsa and Delta States. The findings revealed no significant differences between the two states in the types of professional development programmes or in teachers' productivity levels. This suggests that both states follow similar educational policies and face comparable teaching conditions. Moreover, the study found no significant relationship between professional development and teacher productivity. This indicates that while professional development is important, its impact depends on its relevance, quality, and alignment with classroom needs. Generic or infrequent training may not effectively enhance teacher performance. Thus, for professional development to improve productivity, it must be continuous, context-specific, and tailored to teachers' actual challenges. Policymakers should also address broader systemic issues that affect teaching and learning environments.

Recommendations

Based on the findings of this study, the following recommendations are made:

- The State Ministries of Education in both Bayelsa and Delta States should design and implement professional development programmes that are tailored to the specific needs of teachers. These programmes should be subject-specific, practical, and closely aligned with the challenges teachers face in their classrooms. This will ensure that professional development activities are relevant and have a direct impact on teaching practices.
- the Teachers' Registration Council of Nigeria (TRCN) should strengthen its mandate by ensuring that continuous professional development (CPD) is not only compulsory but also consistently monitored. Regular, sustained training opportunities with practical follow-up support should be provided to help teachers build and refine their skills over time.
- 3. State Universal Basic Education Boards (SUBEB) should address broader systemic issues that affect teacher productivity. This includes improving school infrastructure, reducing class sizes, and providing stronger administrative support. Creating a more enabling teaching and learning environment will enhance the effectiveness of any professional development efforts and support better educational outcomes.

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