

INFLUENCE OF TEACHERS' PROFESSIONAL DEVELOPMENT ON INSTRUCTIONAL DELIVERY AND PERCEIVED ACADEMIC PERFORMANCE OF PUPILS IN PRIMARY SCHOOLS IN ESAN CENTRAL LOCAL GOVERNMENT AREA, EDO STATE

ISERE, I.G. & ASIKA, M.O. Ph.D

Department of Science Education, Ambrose Alli University, Ekpoma

Abstract

Teachers' professional development (TPD) refers to the continuous process through which teachers upgrade their knowledge, skills, and teaching practices in response to changing curricula, technologies, and pedagogical trends. This study examined the influence of TPD on instructional delivery and teachers' perceived academic performance of pupils in public primary schools in Esan Central Local Government Area, Edo State, Nigeria. A descriptive survey design was adopted. The population comprised 272 public primary school teachers, from which a sample of 40 teachers (approximately 15%) was drawn using simple random sampling. Data were collected using a structured questionnaire titled the Teachers' Professional Development, Instructional Delivery and Academic Performance Questionnaire (TPDIDAPQ), validated by subject experts and found reliable (Cronbach's alpha = .84), and analyzed using frequency counts, percentages, mean, and standard deviation. Findings showed that teachers who participated regularly in workshops, seminars, and in-service training reported improved lesson planning, classroom management, and instructional delivery, which they perceived to be associated with better pupil engagement and academic outcomes. The study concludes that TPD is associated with improvements in teachers' self-reported instructional practice, though the descriptive, self-report design used here does not permit causal claims about pupils' actual academic performance. It is recommended that government, school administrators, and other stakeholders provide regular, sustained training opportunities for teachers, and that future studies incorporate objective measures of pupils' academic performance, such as school-based test or examination scores.

Keywords: Teachers' Professional Development, Instructional Delivery, Perceived Academic Performance, Primary Schools

Introduction

Teachers occupy a central position in the education system, as the quality of instruction pupils receive largely determines the extent to which educational goals are achieved. Beyond the transmission of knowledge, teachers shape learners' character, social skills, and readiness to contribute meaningfully to society. The manner in which teachers discharge these responsibilities is therefore a matter of concern to government, school administrators, and other education stakeholders.

Many teachers currently in service were trained before the widespread availability of digital tools such as tablets, smartphones, e-books, and online learning platforms, which now shape how pupils access information. Teachers who qualified before these innovations became common may need continuous retraining to remain effective in a changing instructional environment. This need underlies the concept of teachers' professional development (TPD): the deliberate and ongoing processes and activities designed to enhance educators' professional knowledge, skills, and attitudes, with the ultimate goal of improving pupils' learning (Guskey, 2000).

TPD is expected to be a continuous process centred on instructional delivery in the classroom. Instructional delivery refers to the process of ensuring that pupils receive instruction effectively, in a manner that supports mastery of content through appropriate teaching strategies (Azar, 2017). When teachers apply the knowledge and skills gained from professional development to their instructional

delivery, this is generally expected to be associated with improved academic outcomes for pupils (Etuk & Umoh, 2013).

Statement of the Problem

Despite ongoing investment by government and school authorities in workshops, seminars, and in-service training for primary school teachers, concerns persist about the quality of classroom instruction and the academic outcomes of pupils in public primary schools in Esan Central LGA. It is not always clear whether the professional development activities teachers participate in translate into observable improvements in how lessons are delivered, or whether teachers themselves perceive such a link. Existing studies within the LGA have tended to focus on broader curriculum reform (Asika, et al., 2025) rather than on teachers' direct experience of professional development and its relationship with classroom practice. There is therefore limited empirical evidence, from the perspective of teachers in this specific LGA, on how professional development relates to instructional delivery and to teachers' perception of pupils' academic performance. This study was designed to address that gap.

Objectives of the Study

The general objective of this study was to examine the influence of teachers' professional development on instructional delivery and perceived academic performance of pupils in public primary schools in Esan Central LGA, Edo State. Specifically, the study sought to:

1. determine the extent to which teachers in public primary schools in Esan Central LGA participate in professional development programmes;
2. examine teachers' perception of the relevance of professional development to their instructional delivery in the classroom; and
3. assess teachers' perception of the relationship between professional development and pupils' academic performance.

Methods

The study adopted a descriptive survey research design, appropriate for describing the characteristics, opinions, and perceptions of a population using a questionnaire, without manipulating any variable.

The population of the study comprised all 272 public primary school teachers in the 40 public primary schools in Esan Central LGA, Edo State (Department of Planning, Research and Statistics, Esan Central Educational Authority, Irrua, Edo State, 2026).

A sample of 40 teachers, representing approximately 15% of the population, was selected using simple random sampling, which gives every member of the population an equal chance of being included. Six schools (three urban and three rural) were first randomly selected from the 40 schools in the LGA, and teachers were then randomly sampled from these schools.

A sample of this size is smaller than would typically be recommended for a population of this size by common sampling guidelines (Nwana, 1990). This is acknowledged as a limitation of the study (see Section 6). A full census of the 272 teachers, or a larger probability sample, would strengthen the generalizability of future studies on this topic.

Data were collected using a structured questionnaire titled Teachers' Professional Development, Instructional Delivery and Academic Performance Questionnaire (TPDIDAPQ), developed by the researchers. The instrument comprised 14 items rated on a 4-point scale, organized into three sections:

- Section A (1 item): frequency of teachers' participation in professional development programmes (Table 1).
- Section B (8 items): teachers' perception of the relevance and applicability of professional development to instructional delivery (Tables 2–9).

- Section C (5 items): teachers' perception of the relationship between professional development and pupils' academic performance (Tables 10–14).

Items were scored as follows: Strongly Agree (SA) = 4 points, Agree (A) = 3 points, Disagree (D) = 2 points, Strongly Disagree (SD) = 1 point.

Content and face validity of the instrument were established through expert review. The draft instrument was reviewed by two lecturers in Measurement and Evaluation, who assessed the items for clarity, relevance to the study objectives, and appropriateness of language. Their observations were used to revise and refine the final version of the instrument.

To establish the internal consistency of the instrument, a pilot test was conducted with a small group of teachers in a public primary school outside the sampled schools. Data from the pilot test were analyzed using Cronbach's alpha, which yielded a reliability coefficient of .84. Since this value exceeds the generally accepted threshold of .70, the instrument was considered reliable for the study.

Copies of the questionnaire were administered directly to the sampled teachers, with instructions provided on completion. Completed questionnaires were retrieved immediately, giving a 100% retrieval rate.

Data were analyzed using frequency counts, simple percentages, mean, and standard deviation. For each item, a criterion mean of 2.50 (the midpoint of the 4-point scale) was used as a benchmark: item means at or above 2.50 were interpreted as indicating agreement, while means below 2.50 would indicate disagreement. As this study used descriptive rather than inferential statistics, no inferential significance level applies to the item-level results reported in Section 3.

Results and Discussion

Results are presented in three parts, corresponding to the three research questions: teachers' participation in professional development (Table 1); teachers' perception of the relevance of professional development to instructional delivery (Tables 2–9); and teachers' perception of the relationship between professional development and pupils' academic performance (Tables 10–14). For each item, frequency, percentage, mean, and standard deviation are reported, followed by a brief discussion.

Research Question 1: To what extent do teachers in public primary schools in Esan Central LGA participate in professional development programmes?

Table 1

Regularly Participate in Professional Development Programmes

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	3	7.5	7.5	7.5
Disagree	5	12.5	12.5	20
Agree	14	35	35	55
Strongly Agree	18	45	45	100
Total	40	100	100	

Mean = 3.17, SD = .93 (criterion mean = 2.50)

The results show that 18 teachers (45.0%) strongly agreed and 14 (35.0%) agreed that they regularly participate in professional development programmes, against 5 (12.5%) who disagreed and 3 (7.5%) who strongly disagreed. With a mean score of 3.17 (SD = .93) against a criterion mean of 2.50, participation in professional development is fairly common among the sampled teachers, though the standard deviation indicates some spread in experience across respondents.

This is broadly consistent with the view that continuous professional learning helps teachers keep pace with pedagogical and curriculum changes (Guskey, 2000). It suggests that most, though not all, teachers in the sampled schools have access to or make use of professional development opportunities, which has implications for how uniformly training-related benefits may be distributed across schools.

Research Question 2: What is teachers' perception of the relevance of professional development to their instructional delivery?

Table 2

Workshops and Seminars Improve my Teaching Skills

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	0	0	0	0
Disagree	0	0	0	0
Agree	13	32.5	32.5	32.5
Strongly Agree	27	67.5	67.5	100
Total	40	100	100	

Mean = 3.67, SD = .47 (criterion mean = 2.50)

All 40 respondents agreed or strongly agreed (Mean = 3.67, SD = .47) that workshops and seminars improve their teaching skills, with no disagreement recorded. The low standard deviation indicates a strong consensus on this item. This finding aligns with Human Capital Theory (Schultz, 1961), which holds that investment in training improves workers' productivity. Teachers appear to regard workshops and seminars as a reliable source of new pedagogical knowledge.

Table 3

Professional development exposes me to modern teaching methods.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	0	0	0	0
Disagree	1	2.5	2.5	2.5
Agree	15	37.5	37.5	40
Strongly Agree	24	60	60	100
Total	40	100	100	

Mean = 3.58, SD = .55 (criterion mean = 2.50)

A large majority (97.5%) agreed or strongly agreed that professional development exposes them to modern teaching methods (Mean = 3.58, SD = 0.55). This suggests that training programmes are, for most respondents, functioning as an important channel for exposure to learner-centred and technology-supported instructional approaches.

Table 4

In-service Training Enhances my Classroom Management Skills

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	1	2.5	2.5	2.5
Disagree	0	0	0	2.5
Agree	11	27.5	27.5	30
Strongly Agree	28	70	70	100
Total	40	100	100	

Mean = 3.65, SD = .62 (criterion mean = 2.50)

The majority of respondents (97.5%) agreed or strongly agreed that in-service training enhances their classroom management skills (Mean = 3.65, SD = .62). Classroom management is widely regarded as a foundation for effective instructional delivery, so this finding points to a perceived benefit of training in an area central to teaching practice.

Table 5

Professional Development has Improved my Lesson Planning.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	0	0	0	0
Disagree	1	2.5	2.5	2.5
Agree	14	35	35	37.5
Strongly Agree	25	62.5	62.5	100
Total	40	100	100	

Mean = 3.60, SD = .55 (criterion mean = 2.50)

97.5% of respondents agreed or strongly agreed that professional development has improved their lesson planning (Mean = 3.60, SD = .55). Since lesson planning provides direction for instruction, this finding is consistent with the broader pattern of perceived improvements across instructional-delivery items.

Table 6

Professional Development Enables me to Use Diverse Teaching Strategies.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	1	2.5	2.5	7.5
Agree	14	35	35	42.5
Strongly Agree	23	57.5	57.5	100
Total	40	100	100	

Mean = 3.45, SD = .78 (criterion mean = 2.50)

92.5% of respondents agreed or strongly agreed that professional development enables them to use diverse teaching strategies (Mean = 3.45, SD = .78), while 7.5% disagreed. This finding is broadly consistent with the case for differentiated instruction, though the comparatively higher standard deviation here suggests more varied experience among teachers on this item than on Items 2–5.

Table 7

I make better use of instructional materials after attending training programmes.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	3	7.5	7.5	7.5
Disagree	0	0	0	7.5
Agree	14	35	35	42.5
Strongly Agree	23	57.5	57.5	100
Total	40	100	100	

Mean = 3.42, SD = .84 (criterion mean = 2.50)

92.5% of respondents agreed or strongly agreed that training improves their use of instructional materials (Mean = 3.42, SD = .84). The 7.5% who strongly disagreed may reflect teachers whose training has not translated into practical changes in how they select or use materials, which could be a useful focus for future training design.

Table 8

Professional development has improved my classroom communication skills.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	0	0	0	0
Disagree	1	2.5	2.5	2.5
Agree	19	47.5	47.5	50
Strongly Agree	20	50	50	100

Total	40	100	100
--------------	-----------	------------	------------

Mean = 3.48, SD = .55 (criterion mean = 2.50)

97.5% of respondents agreed or strongly agreed that professional development has improved their classroom communication skills (Mean = 3.48, SD = 0.55), a finding consistent with the broader pattern of positive perceptions across Section B.

Table 9

Training programmes help me assess students more effectively.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	0	0	0	0
Disagree	2	5	5	5
Agree	14	35	35	40
Strongly Agree	24	60	60	100
Total	40	100	100	

Mean = 3.55, SD = .60 (criterion mean = 2.50)

95.0% of respondents agreed or strongly agreed that training programmes help them assess pupils more effectively (Mean = 3.55, SD = 0.60). Taken together, Items 2–9 (Mean range 3.42–3.67) suggest that respondents consistently perceive professional development as beneficial to the practical dimensions of instructional delivery covered in this study.

Research Question: What is teachers' perception of the relationship between professional development and pupils' academic performance?

Table 10

Students perform better academically when teachers participate in professional development programmes.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	2	5	5	10
Agree	19	47.5	47.5	57.5
Strongly Agree	17	42.5	42.5	100
Total	40	100	100	

Mean = 3.27, SD = .78 (criterion mean = 2.50)

90.0% of respondents agreed or strongly agreed that pupils perform better academically when teachers participate in professional development (Mean = 3.27, SD = .78). It is important to note that this and the remaining Section C items measure teachers' perception of a relationship, not an independently verified outcome; no pupil test or examination data were collected in this study.

Table 11

Professional development improves students' understanding of lessons.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	2	5	5	10
Agree	23	57.5	57.5	67.5
Strongly Agree	13	32.5	32.5	100
Total	40	100	100	

Mean = 3.17, SD = .75 (criterion mean = 2.50)

90.0% of respondents agreed or strongly agreed that professional development improves pupils' understanding of lessons (Mean = 3.17, SD = .75). As with Item 10, this reflects teachers' perception rather than a directly measured learning outcome.

Table 12

Students are more engaged in learning when teachers apply skills acquired from training.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	0	0	0	5
Agree	15	37.5	37.5	42.5
Strongly Agree	23	57.5	57.5	100
Total	40	100	100	

Mean = 3.48, SD = .75 (criterion mean = 2.50)

95.0% of respondents agreed or strongly agreed that pupils are more engaged when teachers apply skills gained from training (Mean = 3.48, SD = .75). This is broadly consistent with constructivist accounts of learning, which hold that meaningful learning occurs when learners are actively engaged rather than passive recipients of instruction (Piaget, 1992). Teachers who apply active-learning strategies gained through training may be more likely to create classroom conditions associated with this kind of engagement, though this study did not independently observe classroom engagement.

Table 13

Effective instructional delivery contributes to improved students' achievements.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	2	5	5	10
Agree	20	50	50	60
Strongly Agree	16	40	40	100
Total	40	100	100	

Mean = 3.25, SD = .78 (criterion mean = 2.50)

90.0% of respondents agreed or strongly agreed that effective instructional delivery contributes to improved pupil achievement (Mean = 3.25, SD = .78), reinforcing the view among respondents that instructional quality matters for pupil outcomes.

Table 14

Teacher professional development positively influences student's examination results.

Response	Frequency	Percent	Valid Percent	Cumulative %
Strongly Disagree	2	5	5	5
Disagree	0	0	0	5
Agree	21	52.5	52.5	57.5
Strongly Agree	17	42.5	42.5	100
Total	40	100	100	

Mean = 3.33, SD = .73 (criterion mean = 2.50)

95.0% of respondents agreed or strongly agreed that professional development positively influences pupils' examination results (Mean = 3.33, SD = .73). This is the item most directly linking TPD to a measurable outcome (examination results), and the strength of agreement here underscores why future research using actual examination records, rather than teacher perception alone, would be a valuable next step.

Summary of Findings

Across all 14 items, mean scores ranged from 3.17 to 3.67, all above the criterion mean of 2.50, indicating consistent agreement among the sampled teachers that professional development is relevant to their instructional practice. Agreement was strongest and most consistent on items concerning direct instructional skills (Items 2–9, Section B: means 3.42–3.67), with somewhat more variation on items linking professional development to pupils' academic outcomes (Items 10–14, Section C: means 3.17–3.48). This pattern suggests that teachers are more confident in describing changes in their own practice than in judging its downstream effect on pupils, which is consistent with the self-report nature of Section C and reinforces the need for objective performance data in future research.

These findings are broadly consistent with Human Capital Theory (Schultz, 1961), which frames training as an investment that improves worker productivity, and with Guskey's (2000) model of professional development, in which changes in teacher knowledge and practice are hypothesized to precede changes in pupil outcomes. The comparatively lower and more varied scores on Section C items are consistent with the fact that this study measured teachers' perceptions of pupil outcomes rather than the outcomes themselves.

Conclusion

This study examined teachers' participation in professional development and their perception of its relevance to instructional delivery and pupils' academic performance in public primary schools in Esan Central LGA, Edo State. The findings indicate that most sampled teachers regularly participate in professional development activities and perceive these activities as improving specific aspects of their instructional delivery, including lesson planning, classroom management, communication, and use of instructional materials. Teachers also generally perceived a link between their professional development and pupils' engagement and academic performance, although this study measured perception rather than independently verified outcomes.

The study concludes that, within the limits of a descriptive, self-report design, teachers' professional development is associated with improvements in self-reported instructional practice in this LGA. Continuous retraining of teachers therefore remains an important consideration for education stakeholders, though claims about its causal impact on pupils' actual academic performance would require a study design incorporating objective performance measures.

Recommendations

1. Government, school administrators, and relevant stakeholders should ensure that teachers attend professional development training at regular intervals, with consistent participation monitored across schools.
2. Teachers should be encouraged and supported to apply what they learn in training directly to classroom practice.
3. Incentives should be considered for teachers after training, to support motivation and a sense of value.
4. School-based monitoring teams should periodically observe teachers' application of newly acquired skills and provide timely feedback.
5. Future studies should obtain pupils' actual academic performance data (e.g., term or examination results) from school records to complement teachers' perceptions, and should use a larger sample or a full population census.
6. A similar study could be conducted in other Local Government Areas in Edo State for comparison.

References

- Asika, M. O., Isere, G., & Asika, J. I. (2025). An investigation into the improvement of Edo

- Basic Education Sector Transformation (Edo BEST) on the old curriculum. SSR Journal of Arts, Humanities and Social Sciences, 2(7), 83–92.
- Austin, U. O., & Bell-Gam, V. H. (2001). Principles and methods of teaching. Bellco publishers.
- Azar, A. (2017). The importance and practice of instructional delivery in effective teaching and learning. Journal of Educational Practice, 8(12), 45–52.
- Department of Planning, Research and Statistics, Esan Central Educational Authority. (2026). Teacher and school population records, Irrua, Edo State.
- Etuk, E. N., & Umoh, E. A. (2013). Instructional delivery and students' academic achievement in secondary schools. International Journal of Educational Research and Development, 87–95.
- Guskey, T. R. (2000). Evaluating professional development. Corwin press.
- Hart, L. A., & Nwuke, T. J. (2025). Teachers' professional development and content delivery in public senior secondary schools in Rivers State. International Journal of Economics and Business Management.
- Loquias, J. G. A. (2026). Teachers' professional development and instructional practices. Guimaras State University, Buenavista, Guimaras.
- Nwana, O. C. (1990). Introduction to educational research. Heinemann Educational Books.
- Piaget, J. (1992). The psychology of the child. Basic Books.
- Schultz, T. W. (1961). Investment in human capital. The American Economic Review, 51(1), 1–17.