RELATIONSHIP BETWEEN QUALITY OF PROFESSIONAL DEVELOPMENT PROGRAMMES AND TEACHERS' EFFECTIVENESS IN PUBLIC SECONDARY SCHOOLS IN EDO SOUTH SENATORIAL DISTRICT OF EDO STATE

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CHAPTER ONE

INTRODUCTION

Background to the Study

Quality education is widely recognized as a foundational driver of socio-economic development, enabling nations to develop competent human capital capable of fostering innovation, productivity, and sustainable growth. At the core of any effective educational system are teachers, whose knowledge, pedagogical competence, instructional strategies, and professional dispositions significantly shape students' learning experiences and academic outcomes. As educational demands continue to evolve in the twenty-first century, teachers are expected to adapt to curriculum reforms, technological advancements, inclusive education practices, and global pedagogical standards. Consequently, continuous professional development has become indispensable for sustaining teacher quality and enhancing overall effectiveness, particularly at the secondary school level where instructional complexity and subject specialization are pronounced (Olaifa, Ciroma, Olaifa, Onikoyi & Shittu, 2025).

Professional development programmes (PDPs) refer to structured and systematic learning opportunities designed to enhance teachers' content knowledge, pedagogical skills, instructional strategies, and professional competencies (Darling-Hammond, Hyler & Gardner, 2017). Effective professional development goes beyond routine training sessions; it encompasses coherent, content-focused, and sustained learning experiences that foster meaningful changes in classroom practice and ultimately improve teacher effectiveness and student outcomes. Empirical studies indicate that high-quality professional development characterised by relevance, active learning, collaboration, sufficient duration, and follow-up support can significantly strengthen teachers' instructional delivery, classroom management abilities, and job performance (Uzorka, Kalabuki & Odebiyi, 2024).

In the Nigerian educational system, professional development has been institutionalized through policy provisions such as the National Policy on Education, which mandates continuous in-service training to ensure that teachers' knowledge and competencies remain current. Despite these policy directives, concerns persist not merely about the existence of PDPs, but about their quality. Questions often arise with regard to the relevance of training content, adequacy of duration, instructional methods employed during training, opportunities for practical engagement, and the availability of post-training support. Where professional development lacks contextual alignment with classroom realities, its influence on teachers' effectiveness may be limited.

Professional development is a continuous process that enables teachers to remain current with educational innovations, curriculum reforms, instructional technologies, and best teaching practices. According to Sancar, Atal, and Deryakulu (2021), professional development extends from the beginning of a teacher's career until retirement and involves formal and informal learning experiences aimed at improving teaching quality and students' learning outcomes. Among the most common forms of teachers' professional development are workshops, A workshop is one of the most practical forms of professional development through which teachers acquire new knowledge, instructional skills, and classroom techniques through active participation and hands-on activities. Unlike conventional lectures, workshops encourage participants to engage in demonstrations and practical exercises, it also gives room for peer learning. Workshops are usually organised to improve teachers' competence in specific areas such as curriculum implementation, classroom management, assessment practices, instructional technology, learner-centred pedagogy, and subject-specific teaching strategies.

According to Borko and Koellner (2020), workshops provide teachers with opportunities to acquire practical knowledge that can be immediately applied in classroom instruction. Similarly, professional development programmes may include active participation,

lesson demonstrations, practice sessions and follow-up support produce greater improvements in teaching effectiveness and student learning than programmes based solely on theoretical presentations.

Another form of professional development of teachers is through seminars. A seminar is an organized academic or professional learning programme in which experts or experienced educators present and discuss emerging educational issues, instructional innovations and policy developments with teachers. Seminars are designed primarily to broaden teachers' professional knowledge and expose them to current trends in education. According to Sancar et al. (2021), seminars provide opportunities for teachers to engage in reflective learning and collaborative exchange of ideas that promote continuous professional growth. Through seminars, teachers become familiar with recent curriculum reforms, innovative instructional approaches and technological developments which are relevant to classroom teaching. Photopoulou (2021) also explained that seminars contribute to teachers' professional development by promoting continuous learning, reflective practice, professional collaboration, and lifelong learning competencies. Teachers who regularly participate in seminars are more likely to adopt more productive instructional practices and actively respond effectively to educational changes.

Conference is another area of professional development of teachers. A conference is a formal gathering of educators, researchers, policymakers, and education professionals organized to present research findings, exchange professional experiences and discuss educational innovations. During educational conferences, contemporary issues affecting teaching and learning are discussed. Conferences usually involve keynote presentations, panel discussions and paper presentations. Conferences expose teachers to current educational research, emerging pedagogical innovations, technological advancements and international best practices. According to Popova, Evans, Breeding and Arancibia (2022) professional development activities that expose teachers to external expertise and evidence-based

instructional practices tend to significantly improve teaching quality when supported by follow-up implementation in schools. Similarly, Perry and Booth (2021) noted that conferences provide opportunities for professional networking, collaboration and exchange of innovative teaching practices among educators from diverse educational settings. Such interactions broaden teachers' professional perspectives and encourage the adoption of effective instructional strategies in classroom practice.

Another area of professional development of teachers is in-service training. In-service training refers to organized professional learning activities provided to practicing teachers after their initial qualification with the aim of improving their professional competence, instructional effectiveness, and classroom performance. It is conducted while teachers remain actively employed and may take the form of short courses, workshops, mentoring programmes, coaching sessions, refresher courses or online professional learning. According to Popova, Evans, Breeding and Arancibia (2022) in-service training remains the principal strategy used by governments and educational institutions to improve teachers' knowledge, pedagogical skills, and instructional competence. Yirci, Durna, and Kocabaş (2021) also described in-service training as a continuous professional learning process that enables teachers to update instructional skills, and respond effectively to changing educational demands. Their study revealed that teachers considered professional development, interaction with colleagues, and exposure to new instructional practices as the major benefits of in-service training. In-service training tend to enhances teachers' professional competence by improving curriculum implementation, classroom management, instructional planning, learner assessment, educational technology integration, inclusive education practices, and classroom innovation. It also enables teachers to adapt to curriculum reforms, policy changes, and emerging educational challenges while promoting lifelong professional learning. Together, these professional

development activities tend to strengthen teachers' instructional competence, improve teaching effectiveness, and ultimately contribute to better learning outcomes for students

Beyond instructional delivery, professional development is closely linked to broader dimensions of teacher effectiveness, including reflective practice, classroom management, professional confidence, adaptability, and job commitment. Continuous learning opportunities have been shown to foster teachers' ability to implement innovative pedagogical strategies, manage diverse classrooms effectively, and engage students actively in the learning process (Hussain, Azeem, Ahmad, Khan & Fatima, 2024). Nonetheless, the realization of these outcomes depends largely on the quality of the professional development programmes. Research emphasizes that centrally designed, one-size-fits-all training models may fail to address specific contextual needs, thereby limiting their practical impact on teachers' effectiveness (Sasere & Makhasane, 2023).

Quality Professional Development Programme (PDP) involves organized learning activities that respond to teachers' actual professional needs and provide opportunities for them to acquire new knowledge, practise new skills, receive feedback, reflect on their teaching, and apply what they have learned in the classroom. However, the quality of a programme is not determined simply by the number of activities teachers attend. Rather, it depends on whether the programme is meaningful, relevant to teachers' work, sufficiently sustained, and capable of producing changes in teaching practice.

Within Edo South Senatorial District of Edo State, professional development activities are organized for secondary school teachers. While teachers may attend workshops or seminars, it remains unclear whether the content relevance, duration, instructional approach, and support structures of these programmes are sufficiently robust to influence measurable improvements in instructional delivery, classroom management, and overall job performance. Anecdotal

accounts suggest variability in the perceived usefulness and applicability of some training sessions, raising questions about how programme quality may affect teacher outcomes.

It is pertinent to notes that teachers participation alone does not guarantee improved effectiveness; rather, the quality and structure of professional development experiences determine whether teachers internalize new knowledge and translate it into classroom practice (Uzorka et al., 2024). Teachers who engage in collaborative, practice-oriented, and sustained professional learning are more likely to adopt innovative instructional strategies and demonstrate improved performance compared to those exposed to short-term or theoretically driven sessions. Therefore, understanding the qualitative dimensions of PDPs such as relevance, coherence, engagement, and support is critical for assessing their relationship with teacher effectiveness.

Teachers' effectiveness refers to the extent to which teachers are able to successfully perform their instructional, professional responsibilities and facilitate meaningful learning among students. An effective teacher does not only possess adequate knowledge of the subject matter but is also expected to plan lessons appropriately, communicate concepts clearly, manage the classroom effectively, use suitable instructional methods and materials, assess students' learning, and provide appropriate feedback. Darling-Hammond et al. (2020) emphasized that effective teaching involves the ability of teachers to create learning environments and instructional experiences that support students' academic and broader developmental needs. Therefore, teachers' effectiveness can be assessed through several observable indicators or indices.

Lesson planning and preparation is one important index of teachers' effectiveness. Effective teachers prepare adequately before entering the classroom by identifying learning objectives, selecting appropriate instructional strategies and materials, organizing learning activities, and determining suitable methods of assessment. Proper preparation enables the

teacher to present lessons systematically and ensures that instructional activities are aligned with the intended learning outcomes. A teacher who consistently plans lessons is more likely to use classroom time effectively and respond appropriately to students' learning needs. Instructional delivery is another major index of teachers' effectiveness. It concerns the ability of the teacher to present subject matter clearly, logically and in a manner that students can understand. Effective instructional delivery involves the appropriate use of teaching methods, questioning techniques, explanations, demonstrations and examples. Teachers are expected to adapt their methods to the nature of the subject and the abilities of their learners. Darling-Hammond et al. (2020) noted that effective teaching requires instructional practices that actively engage learners and provide appropriate support for understanding.

Classroom management is also a significant indicator of teacher effectiveness. Classroom management involves the teacher's ability to establish and maintain an orderly, supportive and productive learning environment. An effective teacher establishes clear rules and expectations, manages students' behaviour appropriately, maintains students' attention and minimizes disruptions during lessons. Effective classroom management creates an environment in which students can participate meaningfully in learning without unnecessary distractions. Teachers' ability to engage students constitutes another important index. Effective teachers encourage students to participate actively in classroom activities rather than merely listening passively to instruction. Student engagement may involve asking and answering questions, participating in discussions, completing learning activities, collaborating with classmates and applying knowledge to practical situations. Teachers who use interactive instructional strategies are better positioned to sustain students' interest and encourage active participation in learning. Communication skills constitute another important index of teachers' effectiveness. Teachers must be able to communicate ideas clearly through verbal and written communication while also listening to students and responding appropriately to their questions

and concerns. Effective communication promotes understanding, encourages classroom interaction and helps establish positive relationships between teachers and students. These indices provide observable dimensions through which the effectiveness of teachers can be assessed (Mammadov, 2024). While professional development initiatives are present, the extent to which their qualitative features translate into measurable teacher effectiveness has not been sufficiently documented in the local context. Examining this relationship is essential for determining whether investments in professional development are yielding meaningful returns in terms of improved instructional practices and educational outcomes.

Statement of the Problem

The quality of education in any society largely depends on the effectiveness of its teachers. To enhance teachers' competence and performance, professional development programmes are organized to update their knowledge, improve pedagogical skills, and equip them with modern instructional strategies. In Edo South Senatorial District of Edo State, professional development programmes are periodically conducted for secondary school teachers. However, there is growing concern that despite participation in these programmes, variations still exist in teachers' classroom performance, instructional practices, and overall effectiveness. It remains unclear whether the quality of these professional development programmes significantly relates to or predicts teachers' effectiveness in the district. The assumption that professional development automatically improves teaching performance has not been sufficiently supported by empirical evidence within the local context. Factors such as gender, teaching experience, and school location may influence how teachers benefit from professional development programmes. Yet, there is limited documented research examining whether the relationship between professional development quality and teachers' effectiveness differs across these demographic variables in Edo South Senatorial District.

Therefore, the problem of this study is the on the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District. In other words, does the quality of professional development programme available to teachers relates with their teaching effectiveness?

Purpose of the Study

The purpose of this study is to examine the relationship between the quality of professional development programmes and teachers' effectiveness in public secondary school in south senatorial district of Edo State. Specifically, the study seeks to:

1. examine the level of quality of professional development programmes available to teachers in public secondary schools in Edo South Senatorial District of Edo State;
2. assess the level of teaching effectiveness of teachers in public secondary schools in Edo South Senatorial District of Edo State;
3. determine the extent to which the quality of professional development programmes relates to teaching effectiveness of teachers in public secondary schools in Edo South Senatorial District of Edo State;
4. examine the extent to which the quality of professional development programmes relates to teaching effectiveness of teachers based on gender;
5. determine the extent to which the quality of professional development programmes relates to teaching effectiveness of teachers based on teaching experience; and
6. examine the extent to which the quality of professional development programmes relates to teaching effectiveness of teachers based on school location.

Research Questions

The following research questions were raised to guide the study:

1. What is the level of the quality of professional development programmes available to teachers in public secondary schools in Edo south senatorial district?

2. What is the level of the teaching effectiveness of public secondary school teachers in Edo south senatorial district of Edo State?
3. What is the relationship between quality professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District of Edo State?
4. Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on gender?
5. Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on teaching experience?
6. Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on school location?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 alpha level of significance:

1. The level of quality of professional development programmes available to teachers in public secondary schools in Edo South Senatorial District of Edo State is not significant.
2. The level of teaching effectiveness of teachers in public secondary schools in Edo South Senatorial District of Edo State is not significant.
3. The relationship between quality of professional development programmes and teachers' effectiveness in public secondary schools in Edo South Senatorial District of Edo State is not significant.
4. The relationship between quality of professional development programmes and teachers' effectiveness in public secondary schools in Edo South Senatorial District of Edo State based on gender is not significant.

5. The relationship between quality of professional development programmes and teachers' effectiveness in public secondary schools in Edo South Senatorial District of Edo State based on teaching experience is not significant.
6. The relationship between professional development programmes and teachers' effectiveness in public secondary schools in Edo South Senatorial District of Edo State based on school location is not significant.

Significance of the Study

The findings of this study will be significant to several stakeholders in the educational sector and beyond such as; teachers, students, educational policy makers and future researchers. First, the study will be beneficial to teachers in secondary schools in Edo South Senatorial District, as it would provide empirical evidence on how the quality of professional development programmes relates to their effectiveness. By identifying the qualitative features of professional development that positively influence instructional delivery, classroom management, and job performance, teachers would gain clearer insight into the types of training that are most beneficial to their professional growth.

Students will also benefit indirectly from the outcomes of this study. Since teachers' effectiveness significantly influences student engagement, understanding, and academic achievement, establishing a clear relationship between high-quality professional development and teacher performance may contribute to improved classroom experiences.

Parents and the wider community will find the study valuable because it underscores the importance of investing in the quality of teacher development as a strategic approach to improving educational standards.

Educational policymakers, school administrators, and planners will particularly benefit from the findings of this research. The study would provide evidence-based insights that can guide the design, evaluation, and refinement of professional development frameworks. Also,

by examining variations based on gender, teaching experience, and school location, the findings may assist policymakers in developing more equitable and context-sensitive professional development strategies.

The study would contribute to existing academic literature by providing empirical data from Edo South Senatorial District, an area where limited research has been conducted on the relationship between professional development quality and teacher effectiveness.

Future researchers would benefit from the study as a reference point for comparative studies, replication research, or expanded investigations into related variables. In this way, the research would serve as a foundation for further scholarly inquiry into teacher development and educational improvement.

Scope of the Study

This study focuses on examining the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools within Edo South Senatorial District of Edo State. The research is limited to investigating key dimensions of professional development programme quality, including relevance of training content, delivery methods, duration, and follow-up support mechanisms. Teachers' effectiveness is examined in terms of instructional delivery, classroom management skills, subject mastery, and overall job performance. In addition, the study explores whether the relationship between professional development programme quality and teachers' effectiveness varies based on selected demographic variables, namely gender, teaching experience, and school location (urban and rural schools). Geographically the study specifically covers computer science teachers and students public Senior Secondary Schools across all Local Government Areas in Edo South Senatorial District within Edo State, Nigeria.

Operational Definition of Terms

Classroom Management: Teachers' ability to maintain order, manage student behavior, create a conducive learning environment, and effectively utilize instructional time.

Sex: The biological classification of teachers as male or female for the purpose of comparative analysis in this study.

Implementation: The process of planning, organising, and delivering professional development programmes for teachers.

Instructional Delivery: The methods and strategies used by teachers to present subject content, facilitate learning, and ensure students' understanding during classroom teaching.

Job Performance: The overall level of teachers' professional output, including lesson preparation, punctuality, assessment practices, and commitment to assigned duties.

Professional Development Programmes (PDPs): Structured training activities such as workshops, seminars, conferences, mentoring, coaching, and in-service training organized for secondary school teachers in Edo South Senatorial District to enhance their professional knowledge and instructional skills.

Quality of Professional Development Programmes: The degree to which professional development programmes are relevant, well-structured, adequately delivered, sustained over time, and supported with follow-up mechanisms, as measured by teachers' responses to the research instrument in this study.

School Location: The geographical setting of the school where the teacher works, classified as either urban or rural within Edo South Senatorial District.

Teachers' Effectiveness: The extent to which secondary school teachers demonstrate competence in instructional delivery, classroom management, subject mastery, student engagement, and overall job performance, as assessed through the study questionnaire.

Teachers Experience: The number of years a teacher has spent in active teaching service, categorised according to the groupings used in this study.

CHAPTER TWO

LITERATURE REVIEW

This chapter attempts a review of literature relating to the implementation and effectiveness of professional development programmes for teachers. This Chapter is further organised into the following sub headings: Conceptual framework, Theoretical framework, Empirical review and Summary of literature review.

Conceptual Framework

The conceptual framework of his study relates the connection between the variables and depicts factors such Teacher development programme and Teacher engagement, motivation, autonomy and how they influence teacher effectiveness.

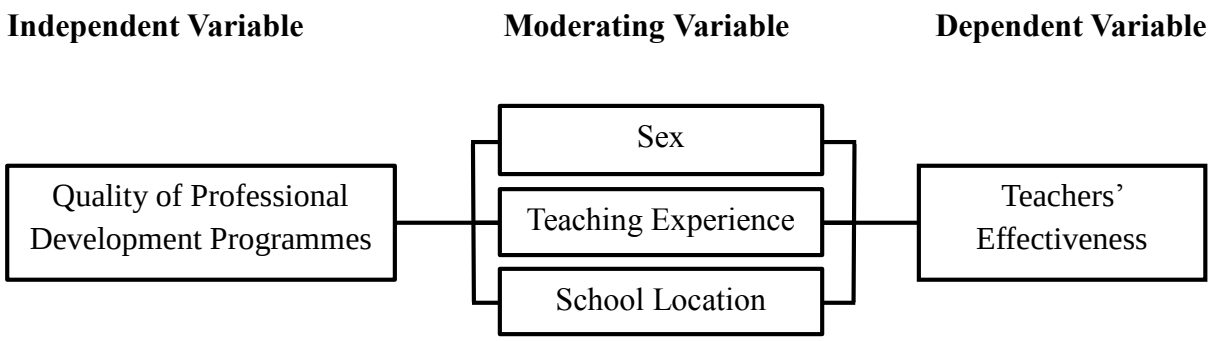


Figure 1: Conceptual Model of the Research

Source: Developed by the Researcher

Concept of Professional Development Programmes

Professional development programmes have become an essential component of modern educational systems as they provide teachers with opportunities to continuously update their knowledge, skills, and instructional practices. The rapidly changing educational environment, characterized by curriculum reforms, technological advancements, and evolving teaching methodologies, requires teachers to engage in ongoing professional learning in order to remain effective in their roles.

Professional development programmes generally refer to organized activities designed to enhance teachers' professional knowledge, skills, and instructional practices. These programmes may take various forms including workshops, seminars, conferences, mentoring sessions, collaborative learning activities, and formal training courses. The primary objective of such programmes is to support teachers in developing the competencies necessary to facilitate effective teaching and meaningful student learning. According to Darling-Hammond, Hyler, and Gardner (2017), professional development programmes help teachers deepen their understanding of subject content, adopt innovative instructional strategies, and improve their ability to meet diverse student learning needs.

In recent years, the concept of professional development has shifted from viewing training as a one-time event to recognizing it as a continuous and career-long learning process. Modern perspectives emphasize that effective professional development should be sustained, collaborative, and closely connected to teachers' classroom practices. Desimone and Garet (2018) explain that professional development initiatives are most effective when they focus on subject content, involve active learning opportunities, and provide teachers with time to practice new skills and reflect on their instructional approaches. Through this process, teachers are able to gradually integrate new teaching strategies into their everyday classroom activities.

Another important dimension of professional development programmes is their role in fostering reflective practice among teachers. Reflective practice allows teachers to critically evaluate their teaching methods, identify areas for improvement, and adopt new approaches that enhance learning outcomes. Postholm (2018) notes that professional development initiatives that encourage reflection and collaboration among teachers contribute significantly to professional growth because they allow educators to share experiences, discuss challenges, and learn from one another.

Professional development programmes are also closely linked to teacher motivation and professional identity. When teachers participate in meaningful learning opportunities that address their professional needs, they are more likely to feel confident and committed to their teaching roles. Research by Opfer and Pedder (2020) indicates that professional development not only improves teachers' instructional competence but also strengthens their professional commitment and sense of efficacy in the classroom. Teachers who feel supported through professional learning opportunities tend to demonstrate greater enthusiasm and engagement in their teaching activities.

The growing integration of digital technology in education has expanded the scope of professional development programmes. Many educational institutions now provide online training, webinars, and virtual professional learning communities that allow teachers to access training opportunities regardless of geographical location. Digital platforms have made it easier for teachers to collaborate with colleagues, share teaching resources, and engage in continuous learning. According to Trust, Carpenter, and Krutka (2019), online professional learning networks have become an important avenue for teachers to develop new skills, particularly in the areas of digital pedagogy and technology integration. professional development programmes are particularly important because they help teachers adapt to curriculum changes and improve instructional quality. Many education systems face challenges such as limited instructional resources, large class sizes, and varying teacher qualifications. Continuous professional development therefore serves as an important strategy for improving teacher capacity and strengthening overall educational quality.

Types of Professional Development Programmes for Teachers

Professional development programmes for teachers exist in different forms and structures depending on the professional needs of educators, the objectives of educational institutions, and the policies guiding teacher development within a particular education system.

These programmes are designed to strengthen teachers' instructional competence, update their professional knowledge, and improve the quality of teaching and learning in schools. As educational practices continue to evolve, various forms of professional development have been developed to ensure that teachers receive continuous support in improving their classroom practices.

One common type of professional development programme is workshops and seminars. Workshops are often organized as short-term training sessions where teachers are introduced to new teaching strategies, assessment techniques, or curriculum changes. These sessions usually involve practical demonstrations, group discussions, and collaborative problem-solving activities that allow teachers to apply newly acquired knowledge to real classroom situations. Seminars, in contrast, tend to focus more on the presentation and discussion of research findings, innovative educational practices, and emerging trends in teaching and learning. According to Avalos (2018), workshops and seminars provide valuable opportunities for teachers to engage with new ideas and develop practical strategies that can enhance their instructional practices.

Another important form of professional development is in-service training. In-service training programmes are organized for teachers while they are actively employed within the school system. These programmes are usually coordinated by educational authorities, ministries of education, or school management teams in order to improve teachers' professional competence and ensure effective implementation of educational policies. In-service training often focuses on areas such as curriculum implementation, assessment methods, classroom management, and the integration of new technologies into teaching. Research suggests that continuous in-service training helps teachers remain up to date with changes in educational practices and strengthens their ability to meet the diverse learning needs of students (Caena & Redecker, 2019).

Mentoring programmes also represent a significant approach to teacher professional development. Mentoring involves a professional relationship in which experienced teachers provide guidance and support to less experienced colleagues, particularly those who are new to the profession. Through mentoring, novice teachers receive practical advice, feedback, and encouragement that help them develop effective classroom management and instructional skills. Mentoring relationships often provide a safe environment where beginning teachers can discuss challenges and receive support in improving their teaching practices. According to Hobson (2020), mentoring programmes play an important role in helping early-career teachers build confidence and adapt successfully to the demands of the teaching profession.

Closely related to mentoring is instructional coaching, another form of professional development that has gained increased attention in recent years. Coaching focuses on providing ongoing professional support to teachers through observation, feedback, and collaborative reflection on teaching practices. Instructional coaches often work directly with teachers to identify specific areas for improvement and develop strategies for enhancing classroom instruction. Research indicates that sustained coaching programmes contribute to improved teaching quality because they provide teachers with continuous opportunities to refine their instructional techniques (Kraft & Hill, 2020).

Professional learning communities (PLCs) are also widely recognized as an effective professional development strategy in schools. PLCs involve groups of teachers who collaborate regularly to discuss instructional challenges, analyze student performance data, and share effective teaching practices. Through collaborative engagement, teachers learn from one another and collectively develop solutions to classroom challenges. PLCs promote a culture of shared responsibility for improving teaching and student learning within schools. Studies have shown that teachers who participate in professional learning communities are more likely to

adopt innovative teaching strategies and demonstrate improved classroom practices (Stoll & Kools, 2017).

In addition, technology-based professional development has expanded rapidly due to advancements in digital learning platforms. Online courses, webinars, and virtual professional learning networks provide teachers with flexible opportunities to access professional training regardless of location or time constraints. Digital professional development also allows teachers to interact with educators from different regions, share teaching resources, and participate in global learning communities. According to Philipsen, Tondeur, Pareja Roblin, Vanslambrouck, and Zhu (2019), online professional development programmes are increasingly important for helping teachers develop digital pedagogical skills required in modern classrooms.

Implementation of Professional Development Programmes

The implementation of professional development programmes is a critical aspect of educational improvement because it determines how effectively training initiatives translate into improved teaching practices. Professional development programmes are not merely defined by their design but by how well they are executed within educational institutions. Effective implementation ensures that professional development activities are structured, relevant, and responsive to teachers' needs while aligning with broader educational goals. Scholars emphasize that the success of professional development programmes depends largely on how they are planned, delivered, and sustained within schools (Desimone & Garet, 2018; Kennedy, 2019).

Implementation typically begins with identifying the professional learning needs of teachers. Educational institutions must first assess areas where teachers require improvement, such as instructional strategies, classroom management, curriculum delivery, or technology integration. Needs assessment helps programme organizers design training activities that

directly address the practical challenges teachers encounter in the classroom. According to Caena and Redecker (2019), professional development initiatives are more effective when they are informed by teachers' professional needs and contextual realities rather than imposed as generalized training programmes.

Another important element in the implementation of professional development programmes is the design of appropriate training structures. Implementation strategies often include workshops, mentoring, peer collaboration, coaching sessions, and professional learning communities. These approaches allow teachers to actively engage in the learning process and apply new knowledge in practical teaching situations. Active participation has been identified as a key factor in successful professional development implementation because it encourages teachers to reflect on their teaching practices and adopt new instructional approaches (Darling-Hammond, Hyler, & Gardner, 2017).

Leadership and administrative support also play a crucial role in the effective implementation of professional development programmes. School administrators and educational policymakers are responsible for providing the necessary resources, guidance, and institutional support required for professional learning initiatives to succeed. When school leadership actively supports teacher development, it creates a culture that values continuous learning and professional growth. Studies have shown that supportive leadership enhances teachers' participation in professional development activities and encourages the application of newly acquired knowledge in classroom instruction (OECD, 2020).

Furthermore, the sustainability and continuity of professional development programmes significantly influence their implementation outcomes. Short-term training programmes often have limited impact if teachers do not receive ongoing support and opportunities to practice newly learned skills. Effective implementation therefore requires sustained professional learning experiences that allow teachers to gradually integrate new

instructional practices into their daily teaching routines. Continuous follow-up activities, peer collaboration, and reflective discussions help reinforce learning and ensure that training outcomes translate into improved teaching effectiveness (Philipsen et al., 2019).

Collaboration among teachers is another important factor in implementing professional development programmes successfully. Collaborative learning environments enable teachers to share experiences, discuss instructional challenges, and collectively develop solutions to improve teaching practices. Through collaboration, teachers are able to learn from one another and strengthen their professional competencies. Research indicates that collaborative professional development approaches promote a culture of shared learning and enhance teachers' ability to apply new knowledge effectively in their classrooms (Trust & Horrocks, 2019).

In addition, monitoring and evaluation are essential components of effective implementation. Educational institutions must assess whether professional development programmes are achieving their intended objectives. Evaluation processes may include teacher feedback, classroom observations, student learning outcomes, and performance assessments. These evaluation mechanisms help identify strengths and weaknesses in professional development initiatives and provide valuable insights for improving future programmes. According to Kennedy (2019), systematic evaluation of professional development programmes helps ensure that training initiatives remain relevant, effective, and aligned with educational goals.

Effectiveness of Professional Development Programmes

The effectiveness of professional development programmes has become a major focus in educational research because of its direct influence on teachers' professional growth and classroom performance. Professional development programmes are expected to enhance teachers' knowledge, instructional skills, and pedagogical practices, ultimately leading to

improved student learning outcomes. However, the success of such programmes depends not only on their availability but also on the extent to which they lead to meaningful changes in teaching practices. Research has shown that effective professional development initiatives contribute significantly to improving teacher competence and instructional quality in schools (Guskey & Yoon, 2021; Wei, Darling-Hammond, & Adamson, 2020).

One of the key indicators of effective professional development programmes is the improvement in teachers' instructional knowledge and subject mastery. Teachers who participate in well-designed professional development programmes are able to deepen their understanding of subject content and develop better strategies for presenting complex concepts to students. Strengthening teachers' content knowledge enables them to deliver lessons more confidently and effectively. According to Borko (2020), professional development initiatives that focus on subject-specific pedagogy allow teachers to better connect theoretical knowledge with practical classroom instruction.

Another important dimension of professional development effectiveness is the improvement of teaching practices. Effective professional development programmes provide teachers with opportunities to learn innovative instructional methods, classroom management strategies, and student-centered teaching approaches. When teachers acquire new teaching techniques and apply them consistently in the classroom, they are more likely to create engaging learning environments that support student participation and understanding. Avalos (2018) notes that professional development initiatives that emphasize active learning and practical application are more likely to influence teachers' classroom behaviour positively.

The effectiveness of professional development programmes is also reflected in teachers' ability to adapt to changes in educational policies and technological advancements. As educational systems increasingly integrate digital technologies into teaching and learning, teachers must develop the necessary skills to incorporate these tools effectively in their

classrooms. Professional development programmes that provide training in educational technology help teachers integrate digital resources into their instructional practices, thereby enhancing the overall learning experience for students. Studies indicate that teachers who receive technology-focused professional development demonstrate greater confidence and competence in using digital tools to support instruction (Tondeur et al., 2020).

Furthermore, effective professional development programmes contribute to increased teacher motivation and professional confidence. When teachers participate in training programmes that address their professional needs and challenges, they tend to feel more supported in their roles and more capable of managing classroom responsibilities. Increased professional confidence encourages teachers to experiment with new teaching strategies and take initiative in improving their instructional practices. Research by Opfer, Pedder, and Lavicza (2019) suggests that professional learning opportunities that promote teacher autonomy and collaboration help strengthen teachers' commitment to continuous professional growth.

Collaboration among teachers is another important outcome associated with effective professional development programmes. Professional development initiatives often create opportunities for teachers to work together, share experiences, and learn from one another. Collaborative learning environments encourage teachers to exchange ideas, discuss instructional challenges, and collectively develop solutions that improve teaching practices. Such collaborative interactions help build professional communities within schools and contribute to sustained improvements in teaching quality (Cordingley et al., 2018).

Concept of Teachers' Effectiveness

Teachers' effectiveness is widely recognized as one of the most important factors influencing students' academic success and the overall quality of education. Effective teachers are those who are able to facilitate meaningful learning experiences, support students'

intellectual and social development, and create classroom environments that encourage engagement and achievement. In educational research, teacher effectiveness is often used to describe the extent to which teachers successfully promote students' learning outcomes through appropriate instructional practices, subject knowledge, and classroom management skills (Stronge, Ward, & Grant, 2018; Hattie, 2018).

The concept of teachers' effectiveness encompasses a combination of professional knowledge, pedagogical competence, and personal attributes that enable teachers to deliver quality instruction. Effective teachers demonstrate strong mastery of subject content and possess the ability to explain complex ideas in ways that are understandable to students with varying learning abilities. They also apply appropriate instructional strategies that stimulate critical thinking, encourage participation, and promote active learning. According to Muijs et al. (2019), teacher effectiveness involves not only mastery of subject matter but also the ability to adapt teaching strategies to meet the diverse needs of learners in the classroom.

Another important dimension of teacher effectiveness relates to classroom management and the creation of a positive learning environment. Effective teachers are capable of organizing classroom activities in ways that maximize learning time while maintaining discipline and order. By establishing clear expectations, maintaining respectful teacher–student relationships, and encouraging cooperative learning, effective teachers are able to create classrooms that support productive learning experiences. Research has shown that well-managed classrooms contribute significantly to improved student engagement and academic performance (Kyriakides, Creemers, & Antoniou, 2019).

Teachers' effectiveness is also closely associated with the ability to use diverse instructional methods and assessment strategies. Effective teachers employ a variety of teaching approaches, including discussion-based learning, collaborative activities, and problem-solving tasks that encourage students to participate actively in the learning process.

They also utilize different assessment methods to evaluate students' understanding and provide feedback that supports continuous learning. According to Coe, Aloisi, Higgins, and Major (2019), effective teachers use formative assessment strategies to monitor students' progress and adjust their instructional approaches accordingly.

In addition, teacher effectiveness involves the capacity for professional reflection and continuous improvement. Effective teachers regularly evaluate their teaching practices, identify areas where improvement is needed, and seek opportunities to enhance their professional competence. Reflective teaching practices allow educators to adapt their instructional approaches based on students' responses and changing educational requirements. Studies suggest that teachers who engage in reflective practice are more likely to improve their instructional quality and student learning outcomes (Schleicher, 2020).

Teacher effectiveness is further influenced by teachers' attitudes, motivation, and commitment to their profession. Teachers who demonstrate enthusiasm for teaching, maintain high expectations for their students, and show dedication to their professional responsibilities are more likely to positively influence student learning. Positive teacher attitudes can inspire students to develop greater interest in their studies and improve their academic performance. Research indicates that teachers' commitment and professional responsibility play a significant role in shaping effective teaching practices and improving educational outcomes (Day & Gu, 2019).

Furthermore, teacher effectiveness is not only measured by instructional performance but also by the ability to support students' holistic development. Effective teachers contribute to students' emotional, social, and moral development by promoting values such as respect, responsibility, and cooperation within the classroom. Through supportive teacher–student relationships, teachers help students develop confidence and motivation that enhance their learning experiences.

Relationship between Professional Development and Teachers' Effectiveness

The relationship between professional development and teachers' effectiveness has received significant attention in educational research because of the important role teachers play in determining the quality of instruction in schools. Professional development programmes are widely recognized as essential mechanisms for improving teachers' knowledge, instructional competence, and classroom practices. When teachers participate in well-designed professional development activities, they gain new skills and pedagogical insights that enable them to improve their teaching practices and better support students' learning needs. Studies have shown that continuous professional development contributes to improved teaching quality and enhanced classroom effectiveness (Timperley, Ell, & Le Fevre, 2017; Sims, Fletcher-Wood, O'Mara-Eves, Cottingham, Stansfield, Van Herwegen, & Anders, 2021).

One important way in which professional development influences teachers' effectiveness is through the enhancement of pedagogical knowledge. Professional development programmes provide teachers with opportunities to learn new instructional strategies, classroom management techniques, and methods of assessing students' learning progress. As teachers acquire new teaching skills, they become better equipped to organize lessons effectively and create engaging learning environments for their students. Pedagogical improvement is particularly important because teachers who possess strong instructional skills are more capable of presenting subject content clearly and addressing the diverse learning needs of students in the classroom (Korthagen, 2017).

Professional development also improves teachers' effectiveness by strengthening their subject matter competence. Teachers who participate in subject-specific professional development activities are able to deepen their understanding of the topics they teach and develop more effective ways of explaining complex concepts to students. Improved subject

knowledge enables teachers to answer students' questions more confidently and guide classroom discussions more effectively. Research indicates that teachers with strong content knowledge are more likely to deliver high-quality instruction that promotes deeper student understanding of academic concepts (Hill, Beisiegel, & Jacob, 2019).

Another significant relationship between professional development and teacher effectiveness lies in the promotion of reflective teaching practices. Professional development programmes often encourage teachers to reflect on their instructional methods, identify areas for improvement, and explore alternative approaches to teaching. Reflective practice allows teachers to evaluate their classroom experiences and adjust their teaching strategies to better meet students' learning needs. According to Avalos (2018), reflective professional learning helps teachers develop greater awareness of their teaching practices and encourages continuous improvement in instructional performance.

Professional development programmes also contribute to teacher effectiveness by promoting collaboration among educators. Many professional development initiatives encourage teachers to work together through group discussions, peer observations, and professional learning communities. These collaborative activities provide opportunities for teachers to exchange ideas, share teaching resources, and learn from each other's experiences. Through collaborative engagement, teachers develop new perspectives on teaching and are able to apply innovative strategies that improve classroom instruction. Research suggests that collaborative professional learning environments enhance teachers' capacity to solve instructional challenges and improve teaching outcomes (Admiraal, Schenke, De Jong, Emmelot, & Sligte, 2019).

In addition, professional development programmes help teachers adapt to emerging educational trends and innovations. Educational systems are constantly evolving due to technological developments, curriculum reforms, and changing expectations regarding student

learning outcomes. Professional development enables teachers to stay updated with these changes and develop the competencies needed to integrate new teaching tools and instructional methods into their classrooms. Teachers who receive adequate professional training are therefore better prepared to respond to the dynamic nature of modern education (Darling-Hammond & Oakes, 2019). Participation in professional development activities often increases teachers' professional confidence and motivation. Teachers who receive training and professional support tend to feel more competent in their roles and more willing to implement innovative teaching practices. Increased professional confidence encourages teachers to experiment with new instructional strategies and continuously seek ways to improve their classroom performance.

Theoretical Framework

The theoretical foundation of this study is based on the Guskey's Model of Teacher Professional Development.

Guskey's Model of Teacher Professional Development (1986)

Guskey's Model of Teacher Professional Development provides an important framework for understanding how professional development activities influence teachers' practices and ultimately improve student learning outcomes. The model was developed by Thomas R. Guskey, (1986) who emphasized that effective professional development should not only focus on increasing teachers' knowledge but should also lead to measurable improvements in classroom practices and student achievement. Unlike traditional views that assume teachers' beliefs change before their teaching practices improve, Guskey proposed that change often occurs in the opposite direction. According to this model, teachers are more likely to change their beliefs and attitudes after they observe positive outcomes resulting from new instructional practices introduced through professional development programmes (Guskey, 2002; Guskey, 2016).

The model outlines a sequence of five critical levels used to evaluate the effectiveness of professional development programmes. These levels include participants' reactions, participants' learning, organizational support and change, participants' use of new knowledge and skills, and student learning outcomes. Each level represents an important stage in determining whether professional development activities are producing meaningful improvements in teaching and learning.

The first level focuses on participants' reactions to the professional development programme. At this stage, teachers evaluate their experiences with the training programme, including its relevance, organization, and overall usefulness. Positive reactions from participants often indicate that the programme is engaging and meets teachers' professional needs. However, Guskey notes that positive reactions alone do not necessarily guarantee that teachers will apply what they have learned in their classrooms.

The second level of the model examines participants' learning. This stage assesses the extent to which teachers have acquired new knowledge, skills, or instructional strategies during the professional development programme. Effective professional development initiatives should enable teachers to deepen their understanding of subject content, teaching methods, and classroom management strategies that support student learning.

The third level addresses organizational support and change. Guskey emphasized that the success of professional development programmes depends heavily on the support provided by educational institutions. School leadership, availability of teaching resources, and supportive policies all influence whether teachers are able to implement new instructional practices. Without institutional support, teachers may find it difficult to apply the knowledge and skills gained from professional development activities.

The fourth level focuses on participants' use of new knowledge and skills in their classrooms. At this stage, teachers begin to integrate newly acquired teaching strategies into their daily instructional practices. Observing how teachers apply these new techniques provides valuable insight into the effectiveness of professional development programmes.

The final level examines student learning outcomes. According to Guskey's model, the ultimate goal of professional development is to improve student achievement and learning experiences. When teachers successfully implement new instructional strategies, students are expected to benefit through improved understanding, increased engagement, and better academic performance.

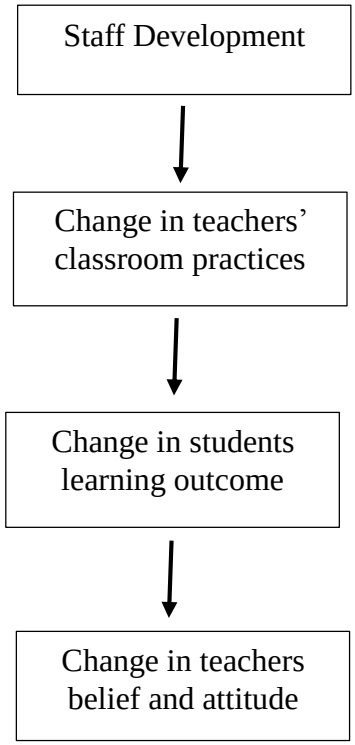


Fig 2: Guskey's Model of Teachers Development
Source: Guskey, 1986

Guskey's Model of Teacher Professional Development is highly relevant to this study which examine the impact of professional development on teacher effectiveness. The model highlights the importance of evaluating professional development programmes not only based on teachers' satisfaction but also on their practical application and impact on student learning. By emphasizing a systematic evaluation process, the model provides educators and policymakers with a clear framework for designing and assessing professional development initiatives.

Empirical Review

Level of Professional Development Programmes Available to Teachers

Ajani (2022) investigated the availability and relevance of professional development programmes for teachers in South African high schools using a qualitative research approach. The study involved three heads of department and five teachers, making a total of eight participants, who were selected purposively. Data were collected through semi-structured interviews and focus group discussions. The findings revealed that although professional development programmes such as workshops, subject meetings, conferences, and seminars were available, they were not organized regularly. Approximately 75% of the teachers interviewed reported that professional development opportunities occurred irregularly, sometimes once in two years. In addition, 62% of the respondents stated that most of the training sessions did not adequately address classroom challenges, particularly issues related to student engagement and curriculum implementation. The study concluded that the level of professional development available to teachers was moderate but inconsistent. Ajani recommended that school administrators and subject specialists should conduct periodic needs assessments to ensure that professional development programmes align with teachers' professional needs. This study is relevant to the present research because it highlights that the

level of professional development programmes available in schools is not determined solely by their existence but also by their frequency and relevance to teachers' instructional practices.

Akperegin and Akpotu (2023) examined the level of teacher professional development in public secondary schools in Delta State, Nigeria. The study adopted a correlational ex-post facto research design and involved 2,138 teachers and 2,360 SS3 students selected through stratified sampling techniques. Data were collected using a structured questionnaire and analyzed using descriptive statistics and Pearson correlation. The results showed that the level of professional development programmes in the schools studied was relatively high. Specifically, 68% of the teachers reported participating in at least two professional development activities within a year, including workshops, seminars, conferences, mentoring, and peer observation sessions. The study also revealed that the mean rating of professional development availability was 3.41 on a 4-point scale, indicating a high level of exposure to training opportunities. However, the authors noted that access to these programmes varied slightly across schools depending on administrative support and funding availability. The study concluded that teachers in Delta State had considerable exposure to professional development programmes, although the frequency and quality of such programmes could still be improved. The findings are relevant to the present study because they provide empirical evidence that the level of professional development programmes in Nigerian secondary schools can be measured through teachers' participation in various training activities.

Olaifa, Ciroma, Olaifa, Onikoyi, and Shittu (2025) investigated teachers' professional development programmes and students' academic achievement in public senior secondary schools in Kontagora Local Government Area of Niger State, Nigeria. The researchers adopted a survey research design involving 312 teachers drawn from 18 public secondary schools. Data were analyzed using descriptive statistics and regression analysis. The results showed that professional development programmes such as seminars, workshops, conferences, peer

observation, and online training courses were available to teachers in the area. Approximately 71% of the respondents reported attending at least one workshop annually, while 54% indicated participation in online professional learning programmes. The study also found that the average availability rating of professional development programmes was 3.27 on a 4-point scale, suggesting a relatively high level of exposure among teachers. However, teachers in rural schools reported slightly fewer opportunities compared to those in urban schools. The researchers concluded that although professional development programmes were available to teachers in the area, the level of participation differed across schools and locations. The study is relevant to the present research because it demonstrates that the availability of professional development programmes can vary within educational systems depending on institutional support and location.

Teachers' Effectiveness in Secondary Schools

Hussaini and Muhammad (2023) examined factors affecting teachers' effectiveness in public secondary schools in Kano State, Nigeria. The study employed a survey research design and sampled 378 teachers from 23 secondary schools using stratified random sampling. Data were collected using a structured questionnaire measuring aspects of teacher effectiveness such as lesson preparation, instructional delivery, classroom management, and assessment practices. Descriptive statistics and regression analysis were used to analyze the data. The findings revealed that the overall level of teachers' effectiveness in the sampled schools was relatively low. The mean score for teacher effectiveness was 2.48 on a 4-point scale, indicating a below-average performance level. Furthermore, 64% of the respondents reported challenges related to large class sizes and inadequate instructional materials, which affected their ability to deliver effective lessons. The regression analysis showed that school environment variables explained 42% of the variance in teachers' effectiveness ($R^2 = 0.42$). The study concluded that improving teachers' effectiveness requires addressing institutional challenges such as inadequate

facilities, limited instructional resources, and poor working conditions. The study is relevant to the present research because it highlights that teacher effectiveness can be influenced by contextual factors within the school environment.

Ishaq, Zaifada, and Apeh (2025) investigated teachers' job effectiveness and students' academic performance in public senior secondary schools in Nasarawa State, Nigeria. The study adopted a correlational research design and involved 240 teachers and 1,200 students selected from 12 secondary schools. Data were collected through teacher questionnaires and students' academic records. The results revealed a significant positive relationship between teachers' effectiveness and students' academic performance ($r = 0.61$, $p < 0.05$). Teachers who demonstrated strong instructional delivery, effective classroom management, and consistent assessment practices were more likely to have students who performed better academically. The study also found that teachers who regularly engaged in professional training activities recorded higher effectiveness scores compared to those who did not participate in such programmes. The authors concluded that improving teachers' job effectiveness is essential for enhancing students' academic performance in secondary schools. This study is relevant to the present research because it demonstrates empirically that teacher effectiveness is a measurable factor that significantly influences educational outcomes.

A study conducted in Uganda by Muwanguzi and Namusoke (2025) examined teacher effectiveness and students' academic achievement in Biology in O-Level secondary schools in Rwampara District. The researchers used a cross-sectional survey design involving 186 teachers and 420 students selected from 10 secondary schools. Data were collected using teacher effectiveness questionnaires and students' examination results. Pearson correlation analysis revealed a strong positive relationship between teacher effectiveness and student academic achievement ($r = 0.66$, $p < 0.01$). The study also found that teachers who used diverse teaching strategies and interactive instructional methods recorded higher effectiveness ratings,

with a mean effectiveness score of 3.38 on a 4-point scale. Additionally, 72% of the students reported that effective teaching methods improved their understanding of Biology concepts. The researchers concluded that teacher effectiveness plays a crucial role in determining students' academic success. The findings are relevant to the present study because they provide empirical evidence from an African context showing that teachers' effectiveness significantly influences student learning outcomes.

Professional Development Programmes and Teachers' Effectiveness

Agbajeola and Hassan (2023) investigated the relationship between teachers' professional development and job performance in secondary schools in Ogun State, Nigeria. The study adopted a descriptive survey design and involved 208 teachers selected from 15 public secondary schools using stratified random sampling. Data were collected through a structured questionnaire measuring teachers' participation in professional development activities such as workshops, seminars, mentoring, and conferences, as well as indicators of teacher effectiveness including instructional delivery, classroom management, and assessment practices. Pearson Product Moment Correlation was used to analyze the data. The results showed a significant positive relationship between professional development and teachers' job performance ($r = 0.57$, $p < 0.05$). Teachers who participated regularly in professional development programmes recorded higher effectiveness scores, with a mean job performance score of 3.36 on a 4-point scale, compared with 2.74 for teachers with minimal training participation. The study also revealed that 69% of the respondents attended at least one professional development programme annually. The researchers concluded that continuous professional development plays a significant role in improving teachers' classroom effectiveness and recommended that educational authorities should institutionalize regular training programmes for teachers.

Akpan and Ita (2022) examined the influence of professional development programmes on teachers' effectiveness in public secondary schools in Cross River State, Nigeria. The study employed a correlational research design involving 240 teachers drawn from 18 secondary schools using a multistage sampling technique. Data were collected through a teacher professional development scale and a teacher effectiveness questionnaire covering instructional planning, classroom management, and evaluation practices. The findings revealed a moderate positive relationship between professional development and teacher effectiveness ($r = 0.49$, $p < 0.05$). Teachers who reported attending workshops, conferences, and in-service training programmes more frequently demonstrated higher effectiveness scores, with an average rating of 3.28 on a 4-point scale. In contrast, teachers who had not participated in professional development activities within the previous two years recorded a lower effectiveness mean score of 2.61. Regression analysis further indicated that professional development accounted for 31% of the variance in teachers' effectiveness ($R^2 = 0.31$). The study concluded that professional development programmes significantly enhance teachers' instructional competence and classroom performance in secondary schools.

In Ghana, Adu-Gyamfi and Sam (2024) examined the impact of professional development programmes on teaching effectiveness in senior high schools. The study used a mixed-method research design involving 182 teachers from 12 public senior high schools. Quantitative data were collected using structured questionnaires, while qualitative data were gathered through interviews. The results showed that teachers who participated in continuous professional development programmes demonstrated improved teaching effectiveness, particularly in classroom communication and instructional delivery. Statistical analysis revealed a significant relationship between professional development participation and teacher effectiveness ($r = 0.63$, $p < 0.01$). Furthermore, 74% of the teachers who attended at least two professional training sessions annually reported improved classroom performance, compared

with 46% of teachers who had not participated in recent training programmes. The study concluded that sustained professional development programmes contribute significantly to improving teaching practices and overall teacher effectiveness in secondary schools.

Professional Development Programmes and Teachers' Effectiveness Based on Gender

Ogunniyi and Famuyiwa (2024) investigated the relationship between continuous professional development and teacher effectiveness in teaching English language in junior secondary schools in Ogun State, Nigeria. The study adopted a descriptive survey research design and sampled 210 English language teachers from 25 secondary schools using stratified sampling. Data were collected using a questionnaire measuring participation in professional development activities and teacher effectiveness indicators such as lesson delivery, classroom management, and student engagement. Independent sample t-tests were used to examine gender differences. The results revealed that both male and female teachers benefited from professional development programmes, but female teachers recorded slightly higher effectiveness scores. The mean effectiveness score for female teachers was 3.34, while male teachers recorded a mean score of 3.21 on a 4-point scale. However, the difference was not statistically significant ($t = 1.42$, $p > 0.05$). The study concluded that professional development programmes enhance teacher effectiveness regardless of gender. The findings suggest that professional development opportunities in secondary schools should be made equally accessible to both male and female teachers.

Akperegin (2023) examined teachers' professional development and students' academic achievement in Delta State public secondary schools. The study involved 2,138 teachers selected through stratified sampling across the state. One of the hypotheses tested whether gender influenced teachers' participation in professional development programmes. Analysis using t-test statistics showed no significant gender difference in professional development participation ($t = 0.83$, $p > 0.05$). Male teachers had a mean participation score of

3.32, while female teachers recorded 3.36 on a 4-point scale. Additionally, teachers who participated in professional development activities showed higher instructional effectiveness ratings with a mean score of 3.40, compared with 2.78 for teachers who did not participate in such programmes. The study concluded that professional development contributes positively to teachers' effectiveness, and the benefits are experienced similarly by both male and female teachers.

A study conducted in Kenya by Wanjiku and Ndirangu (2022) investigated gender differences in the impact of teacher professional development on teaching effectiveness in public secondary schools in Kiambu County. The study adopted a correlational research design involving 160 teachers from 10 secondary schools. Data were analyzed using Pearson correlation and independent t-tests. The findings showed a significant positive relationship between professional development participation and teacher effectiveness ($r = 0.52$, $p < 0.05$). Female teachers recorded a slightly higher mean effectiveness score of 3.30, compared with 3.18 for male teachers, but the difference was not statistically significant ($p > 0.05$). The researchers concluded that gender does not significantly moderate the relationship between professional development programmes and teachers' effectiveness.

Professional Development Programmes and Teachers' Effectiveness Based on Teaching Experience

Usifo (2023) examined the influence of teaching experience on teachers' job performance in public secondary schools in Bayelsa State, Nigeria. The study adopted a descriptive survey design involving 186 teachers selected from 14 secondary schools. Data were analyzed using ANOVA statistics. The results showed that teachers with more than 10 years of teaching experience recorded a higher effectiveness mean score of 3.45, compared with 3.02 for teachers with 5–10 years of experience and 2.78 for teachers with less than five years of experience. The difference was statistically significant ($F = 5.62$, $p < 0.05$). The study

concluded that teaching experience plays a significant role in improving teachers' instructional effectiveness, particularly when combined with continuous professional development opportunities.

Onyekwelu (2024) investigated the influence of professional development programmes on the quality of secondary education in Anambra State. The study employed a survey research design involving 579 respondents consisting of principals and teachers from 263 public secondary schools. Data analysis showed that teachers with longer teaching experience were more likely to benefit from professional development programmes. Teachers with over 12 years of teaching experience recorded a professional development impact mean score of 3.42, compared with 3.08 for teachers with less than five years of experience. Regression analysis further showed that professional development and teaching experience jointly explained 38% of the variance in teaching effectiveness ($R^2 = 0.38$). The study concluded that experienced teachers tend to apply professional development knowledge more effectively in classroom practice.

Okeke and Nwankwo (2022) examined the effect of mentoring programmes on teacher effectiveness among secondary school teachers in Enugu State, Nigeria. The study adopted a quasi-experimental design involving 120 teachers, divided into experimental and control groups. Teachers in the experimental group participated in a mentoring-based professional development programme for six months. The results showed that the experimental group recorded a mean effectiveness score of 3.48, compared with 2.96 for the control group. Furthermore, teachers with more than 8 years of teaching experience demonstrated stronger improvements in classroom management and instructional delivery after the mentoring programme. The study concluded that professional development programmes combined with teaching experience significantly improve teachers' effectiveness.

Professional Development Programmes and Teachers' Effectiveness Based on School Location

Ogbodo (2022) examined the professional development needs of secondary school teachers in Delta State, Nigeria, focusing on differences between urban and rural schools. The study adopted a survey research design involving 214 teachers selected from 20 secondary schools. Data analysis revealed that teachers in urban schools reported a higher level of participation in professional development programmes with a mean score of 3.35, compared with 3.02 for teachers in rural schools. The difference was statistically significant ($t = 2.18$, $p < 0.05$). The study concluded that school location influences teachers' access to professional development opportunities.

Diwa, Ofie, Ojini, and Abang (2023) examined the effect of school location on mathematics teachers' effectiveness in the Calabar Education Zone of Cross River State. The study involved 150 teachers from 12 secondary schools using a survey research design. Results showed that teachers in urban schools recorded a higher teaching effectiveness mean score of 3.33, compared with 3.05 for teachers in rural schools. The difference was statistically significant ($t = 2.47$, $p < 0.05$). The study concluded that school location significantly influences teachers' effectiveness due to differences in instructional resources and professional development opportunities.

Mukagiahana, Sibomana & Ndiritu (2024) examined the implementation of teacher professional development programmes in Rwanda using a cross-sectional survey design involving 248 teachers from 15 secondary schools. The results showed that 78% of teachers in urban schools reported regular participation in professional development activities, compared with 56% in rural schools. Teachers in urban schools also recorded a higher effectiveness mean score of 3.40, compared with 3.12 for rural teachers. The study concluded that school location

plays a significant role in determining teachers' access to professional development programmes and their subsequent effectiveness in classroom instruction.

Summary of Literature Review

This chapter reviewed literature related to the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools. The review was organized into conceptual, theoretical, and empirical sections to provide a clear understanding of the major variables in the study. The conceptual review examined the concepts of professional development programmes, their implementation and effectiveness, and the concept of teachers' effectiveness. Professional development programmes were described as organized activities aimed at improving teachers' knowledge, instructional skills, and professional competence through activities such as workshops, seminars, mentoring, and in-service training. The review also emphasized that the effective implementation of these programmes depends on proper planning, adequate resources, and institutional support. Teachers' effectiveness was explained as the ability of teachers to deliver instruction effectively, manage classrooms, and promote positive student learning outcomes.

The theoretical framework of the study was based on Social Learning Theory, Adult Learning Theory, and Guskey's Model of Teacher Professional Development. Social Learning Theory explains that individuals learn through observation and interaction with others, highlighting the importance of collaboration and mentoring in teacher development. Adult Learning Theory emphasizes that adults learn best when learning experiences are practical, relevant to their needs, and connected to prior experience. Guskey's model further explains that professional development leads to improved teaching practices and student learning outcomes when teachers are able to apply newly acquired knowledge in the classroom.

The empirical review examined several studies conducted in Nigeria and other African countries on professional development programmes and teachers' effectiveness. The studies

revealed that professional development opportunities such as workshops, seminars, and mentoring programmes are available in many secondary schools, although their availability varies across schools. Many studies also reported that teachers who participate in professional development programmes demonstrate improved instructional practices and classroom management skills. The review showed that gender differences in teachers' participation in professional development programmes are generally minimal. However, teaching experience was found to influence how teachers apply knowledge gained from professional development programmes. School location was also identified as an important factor affecting teachers' access to professional development opportunities, with teachers in urban schools often reporting greater exposure to training than those in rural schools.

Despite these findings, limited studies have specifically examined the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District of Edo State. In addition, few studies have considered the influence of gender, teaching experience, and school location in explaining this relationship. Therefore, this study seeks to address this gap by examining the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District of Edo State.

CHAPTER THREE

METHODOLOGY

In this chapter, the methods and procedures that was used to obtain and analyse the data for this research work were discussed. These have been discussed under the following headings: research design, population of the study, sample and sampling technique; research instrument; validity of the instrument; reliability of instrument; method of data collection and method of data analysis.

Research Design

This study adopted the correlational research design because it enables the researcher to determine the nature and strength of the relationship between variables without manipulating them. The design was considered appropriate for this study since it sought to examine the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District of Edo State. The design also helped in determining the level of professional development programmes available to teachers, assess the level of teachers' effectiveness, and examine variations in teachers' effectiveness based on gender, teaching experience, and school location.

Population of the Study

The study population is made up of 1,789 respondents. This comprised 118 computer studies teachers in all public secondary school in Edo South and 1,671 SSII students offering Computer Studies in all Secondary Schools in Edo South Senatorial District of Edo State. According to records obtained from the Ministry of Education, Edo State (2025). Edo South Senatorial District comprises seven Local Government Areas. The breakdown of the population is shown in the table below.

Table 1: Population of the Study

S/N	LOCAL GOVERNMENT IN EDO SOUTH SENATORIAL DISTRICT	POPULATION OF COMPUTER SCIENCE TEACHERS	POPULATION OF SSII STUDENTS
1	Oredo	19	418
2	Ovia South West	9	231
3	Egor	12	215
4	Ovia	17	187
5	Ikpoba Okha	26	309
6	Orhionmwon	20	184
7	Uhunwonde	15	127
	Total	118	1,671

(Source: Ministry of Education, Edo State, 2025).

Sample and Sampling Technique

The sample of this study comprised 285 respondents. This comprised the entire population of 118 teachers and 167 students representing 10% of the total population of students randomly selected. This was done using two sampling techniques. The census sampling and the simple random sampling technique. The census sampling was adopted in selecting the entire population of teachers. This sampling technique involves collecting data from every single member of an entire population rather than a subset when the populace is of manageable size in order to eliminate sampling errors for small population. On the other hand the simple random sampling technique was used in selecting the students that served as respondents with regards to teachers' effectiveness. This was done through balloting using a pieces of paper with yes and no of which the respondents picked and those who picked yes were used of the study. Both techniques were employed to ensure an equal representation of the variables of this study. The sample size is represented in the table below.

Table 2: Sample of the Study

S/N	LOCAL GOVERNMENT IN EDO SOUTH SENATORIAL DISTRICT	SAMPLE OF TEACHERS	STUDENTS SAMPLE OF 10%
1	Oredo	19	42
2	Ovia South West	9	23
3	Egor	12	22
4	Ovia	17	19
5	Ikpoba Okha	26	31
6	Orhionmwon	20	18
7	Uhunwonde	15	13
	Total	118	167

(Source: Ministry of Education, Edo State, 2025).

Research Instrument

The instrument used for data collection in this study was a structured questionnaire titled Quality of Professional Development Programmes and Teachers' Effectiveness Questionnaire (QPDPTEQ). The questionnaire was developed by the researcher to obtain relevant information on the relationship between the quality of professional development programmes and teachers' effectiveness in secondary schools in Edo South Senatorial District of Edo State. The instrument consisted of three sections (A, B and C). Section A contained 3 items on the demographic characteristics of the respondents such as gender, teaching experience, and school location, while Section B contained 9 items measuring the quality of professional development programmes while section C contained 12 items measuring teachers effectiveness. The items in Section B were structured on a five-point Likert scale of Very High Extent (VHE), High Extent (HE), Moderate(M), Low Extent (LE) and Very Low Extent (VLE). and Section C contained items structured on a five-point Likert scale of Always, Often, Sometimes, Rarely and Never.

Validity of the Instrument

The questionnaire was validated by three experts in educational planning and measurement. These experts assessed the instrument to ensure it aligns with the objectives of the study and provides clear and relevant items for the target population. Their suggestions and corrections were incorporated into the final version of the instrument. The validation process was necessary to ensure face and content validity.

Reliability of the Instrument

The reliability of the instrument was determined through a pilot test conducted among teachers in secondary schools outside the selected sample area but within the population. A total of 30 copies of questionnaire were administered to teachers for the pilot test. The responses obtained were analyzed using the Cronbach Alpha internal consistency reliability statistics and a coefficient of 0.76 was obtained for professional development programe and 0.84 was obtained for teachers' effectiveness, showing that the instrument is reliable and could be used for the study.

Method of Data Collection

The data collection process was carried out by the researcher and the service of a trained assistance who distributed the questionnaires to the sampled teachers and students in the seven local government areas of Edo South Senatorial District after taken permission from the school authority. The respondents were time to complete the questionnaires, and after the completed copies of the instrument were retrieved for analysis.

Method of Data Analysis

The data collected for this study were analyzed using both descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation were used to answer the research questions one and two regarding the level of professional development programmes available to teachers and the level of teachers' effectiveness in secondary schools in Edo South

Senatorial District of Edo State. Research question three was answered using Pearson Product Moment Correlation (PPMC) while research question four and six were answered using Point-Biserial and research question five was answered using Spearman Correlation. Hypothesis one and hypothesis two were tested using the one sample t-test. Hypotheses three was tested using Pearson Product Moment Correlation (PPMC) while hypotheses four and six were tested using Point-Biserial correlation while hypotheses five was tested using Spearman Correlation. All hypotheses were tested at the 0.05 level of significance.

CHAPTER FOUR

ANALYSIS OF DATA AND PRESENTATION OF RESULTS

In this chapter the summary of the analysis of the data collected from the respondents drawn from the area of study is presented. The results are presented in relation to the research questions and the hypotheses stated in chapter one. These are as follows:

Research Question 1

What is the Level of the Quality of Professional Development Programmes Available to teachers in public secondary schools in Edo South Senatorial District?

The summary of the descriptive statistics of the level the quality of professional development programmes available to teachers in Edo South Senatorial District namely Ovia South West (OSW) Ovia North East (ONE) Oredo (O) Uhumwonde (UH) Orhionwmon (OR) Egor (EG) Ikpoba - Okha (IK) is presented in table 1

Table 3: Summary of the Descriptive Statistics of the Perceptive Level of Quality of Teachers' Professional Development Programmes in Edo South Senatorial District

ITEM	OSW	ONE	O	UH	OR	EG	IK	Mean	SD	Remark
13	3.00	3.87	3.61	3.71	2.74	3.73	3.56	3.46	0.42	Moderate
14	2.00	3.47	2.72	2.43	2.79	3.18	3.12	2.82	0.50	Moderate
15	2.33	3.60	3.11	3.21	2.21	2.64	3.24	2.91	0.52	Moderate
16	2.17	3.73	3.17	3.36	2.47	2.91	3.56	3.05	0.57	Moderate
17	2.00	3.73	2.50	2.57	2.68	2.73	2.36	2.65	0.53	Moderate
18	2.50	3.87	3.17	3.21	2.89	3.09	3.52	3.18	0.44	Moderate
19	2.00	3.67	3.17	3.14	3.05	3.27	3.28	3.08	0.52	Moderate
20	2.17	3.6	3.33	2.93	2.95	3.45	3.4	3.12	0.49	Moderate
21	2	3.8	3.17	3.36	3	3.27	3.32	3.13	0.56	Moderate
AGGREG	2.24	3.70	3.11	3.10	2.75	3.14	3.26	3.04	0.51	Moderate

Table 3 statistics showed that the mean points of the seven local governments in nine indicators of the quality of teachers' professional development programmes range from 2.65 to 3.46 in a 5 –point scale. The points are therefore classified as moderate. The aggregate mean points for

the seven local governments in the senatorial district – OSW, ONE, O, UH, OR, EG and IK are 2.24, 3.70, 3.11, 3.10 2.75, 3.14 and 3.26 respectively. Ovia North East has the highest mean point of 3.70 while Ovia South West has the lowest mean value of 2.24. The aggregate mean value of the quality of teachers' professional development programmes for the district collectively is 3.04 with a standard deviation of 0.51 which is considered moderate. This implies that the level of quality professional development programmes available to teachers in secondary school in Edo South Senatorial District is moderate.

Research Question 2

What is the Level of Teaching Effectiveness of Public Secondary School Teachers in Edo South Senatorial District of Edo State?

The summary of the descriptive statistics of the levels of the teaching effectiveness of secondary school teachers across the seven local governments in Edo South Senatorial District of Edo State namely Ovia South West (OSW) Ovia North East (ONE) Oredo (O) Uhumwonde (UH) Orhionwmon (OR) Egor (EG) Ikpoba - Okha (IK) is presented in table 1

Table 4: Summary of the Descriptive Statistics of the Level of the Teaching Effectiveness of Secondary School Teachers in Edo South Senatorial District of Edo State

ITEM	ASW	ONE	O	UH	OR	EG	IK	MEAN	SD	Remark
1	2.67	3.22	2.24	3.27	2.40	2.41	2.32	2.65	0.43	High
2	2.17	2.78	1.76	2.87	1.90	2.36	1.97	2.26	0.43	Moderate
3	2.67	2.22	1.52	3.07	1.50	2.41	1.48	2.12	0.64	Moderate
4	2.83	2.33	1.93	3.20	1.90	2.18	1.68	2.29	0.55	Moderate
5	2.83	2.33	1.64	2.80	2.45	2.09	2.65	2.40	0.43	Moderate
6	2.50	1.22	1.93	2.80	2.05	2.05	2.26	2.12	0.50	Moderate
7	2.50	1.33	1.00	3.00	1.75	2.09	1.23	1.84	0.73	Moderate
8	3.00	2.33	2.31	3.20	2.35	2.23	2.77	2.60	0.39	High
9	3.00	2.44	2.38	3.13	1.80	2.23	2.87	2.55	0.47	High
10	2.83	1.33	1.83	3.33	2.35	2.14	2.10	2.27	0.65	Moderate
11	2.50	1.11	1.40	3.13	2.10	1.77	1.13	1.88	0.75	Moderate
12	2.17	2.00	1.05	2.87	1.35	1.73	1.58	1.82	0.60	Moderate
AGGREG	2.64	2.05	1.75	3.06	2.00	2.14	2.00	2.23	0.55	Moderate

Table 4 statistics showed that the mean points of the seven local governments in the twelve indicators of teaching effectiveness range from 1.82 to 2.65 in a 4 –point scale. The points are therefore classified as moderate or high. The aggregate mean points for the seven local governments in Edo south senatorial district – OSW, ONE, O, UH, OR, EG and IK are 2.64, 2.05, 1.75, 3.06, 2.00, 2.14 and 2.00 respectively. Uhumwonde has the highest mean point of 3.06 while Oredo has the lowest mean value of 1.75. The aggregate mean value for the district collectively is 2.23 with a standard deviation of 0.55 which is considered moderate. This implies that there is a moderate level of teaching effectiveness among teachers in Edo South Senatorial District of Edo State.

Research Question 3

What is the relationship between quality professional development programmes and teachers' effectiveness in public secondary schools in Edo South Senatorial District of Edo State?

The Summary of the Pearson correlation statistics between quality of teachers' professional development programmes and teaching effectiveness of teachers is presented in table 3

Table 5: Summary of the Pearson Correlation of the relationship between Quality of Teachers Professional development Programme (QTPDP) and Teachers' Effectiveness (TE).

Model	N	Sum of Squares and Cross-products	Covariance	Pearson Correlation	Coefficient of Determination	Remark
TE	7	176.815	29.469	-.338	11.4%	Low
QTPDP	7					

Table 5 showed that the coefficient of Pearson correlation between quality of professional development programmes and teaching effectiveness of teachers is -.338. This showed that the relationship between quality of teachers' professional development programmes and teaching effectiveness of teachers is negative with 11.4% coefficient of determination. This implies that the quality of teachers' professional development programmes explained 11.4 percent of the

variation in the levels of teaching effectiveness of teachers. This value is closer to zero than the median, thus considered low. Therefore quality of professional development programmes relates to teaching effectiveness of teachers in Edo South Senatorial District effectiveness in a low extent.

Research Question 4

Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on gender ?

The summary of the Point- Biserial correlation between quality of teachers' professional development programmes and their teaching effectiveness based on gender in Edo South Senatorial District of Edo State is presented in table 4

Table 6: Point - Biserial Correlation between secondary school teachers' quality of professional development programmes and their teaching effectiveness based on gender in Edo south senatorial district of Edo State

Model	N	Mean	SD	r_{pb}	Coefficient of determination	Remark
Male	51	28.377	7.14	0.039	0.15%	Low
Female	58	25.74	7.220			

Table 6 statistics showed that the coefficient of point biserial correlation of the Quality of teachers' Professional development Programmes and their teaching effectiveness based on gender is 0.039. This showed that the relationship between the Quality of teachers Professional development Programmes and their teaching effectiveness based on gender has 0.15% coefficient of determination. This means that gender explained only 0.15 percent of the variation in the of Quality of teachers' Professional development Programmes and their teaching effectiveness. This value is closer to zero than the median, thus considered low. Therefore the extent to which quality of professional development programme relates to teaching effectiveness of teachers based on gender is low.

Research Question 5

Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on teaching experience?

The summary of the Spearman correlation analysis between the quality of teachers' professional development programmes and their teaching effectiveness based on years of experience in Edo South Senatorial District of Edo State is presented in table 5

Table 7: Spearman Correlation Analysis between Quality of Teachers' Professional Development Programmes (QTPDP) and teaching effectiveness based on Years of Teaching Experience (TE)

Model	N	Correlation Coefficient	Coefficient of Determination	Remark
QTPDP	111	-.139	1.9%	Negative
TE	111			Low

Table 7 showed that the coefficient of spearman correlation between the Quality of teachers' Professional development Programmes and their teaching effectiveness based on years of teaching experience is -.338. This showed that the relationship between the Quality of teachers' professional development Programmes and teaching effectiveness based on experience is negative with 1.9% coefficient of determination. This means that years of teaching experience explained only 1.9 percent of the variation in the Quality of teachers' Professional development Programmes and their teaching effectiveness. This value is closer to zero than the median, thus considered low. Therefore the extent to which quality of professional development programme relates to teaching effectiveness of teachers based on teaching experience is low.

Research Question 6

Does quality of professional development programmes relate to teachers' effectiveness in Edo South Senatorial District of Edo State based on school location?

The summary of the Point - biserial correlation analysis between quality of teachers professional development programme and their teaching effectiveness based on school location in Edo south senatorial district of Edo State is presented in table.

Table 8: Point- Biserial Correlation between Quality of Teacher professional Development Programmes and their teaching effectiveness based on School Location in Edo South Senatorial District.

Model	N	Mean	SD	r_{pb}	Coefficient of Determination	Remark
Urban	70	29.23	5.99	0.25	6.11%	Low
Rural	41	23.19	7.74			

Table 8 statistics showed that the coefficient of point- biserial correlation between the Quality of teachers Professional development Programmes and their teaching effectiveness based on school location is 0.25. This showed that the relationship between the Quality of teachers Professional development Program and their teaching effectiveness based on school location has 6.11% coefficient of determination. This implies that school location explained only 6.11 percent of the variation in the Quality of teachers Professional development Programmes and their teaching effectiveness. This value is closer to zero than the median, thus considered low. Therefore the extent to which quality of professional development programme relates to teaching effectiveness of teachers based on school location is low.

Summary of the Test of the Hypotheses
The summary of the test of the hypotheses under 0.05 alpha level is presented in the following section

Hypothesis 1
The level of the quality of professional development programmes available to teachers in public secondary schools in Edo South Senatorial District of Edo State is not significant
The summary of the One Sample t Test statistics of the level of the quality of teachers' professional development programmes in Edo South Senatorial district of Edo State is presented in table 9

Table 9: Summary of the One Sample t Test Statistics of the Level of the Quality of Teachers Professional development Programmes in Edo South Senatorial District of Edo State

SN	Items	Mean diff	t	df	Sig. (2-tailed)	Remark
1	Physical training workshops organize annually for teachers in my school	3.46000	21.718	6	.000	Significant
2	Online training opportunities for teachers	2.81571	15.013	6	.000	Significant
3	Seminars and conferences organize for teachers	2.90571	14.822	6	.000	Significant
4	Professional training organize by my school administrators	3.05286	14.120	6	.000	Significant
5	Professional training organize by the government administrators	2.65286	13.151	6	.000	Significant
6	Essential topics covered during training and seminars	3.17857	19.232	6	.000	Significant
7	The time duration of each programme conducted	3.08286	15.779	6	.000	Significant
8	The method of training adopted by the coaches	3.11857	16.905	6	.000	Significant
9	Relevant content covered in the training	3.13143	14.909	6	.000	Significant
10	Aggregate	3.04286	17.806	6	.000	Significant

Test value = 0

Table 9 statistics showed that the mean differences between the test value and the mean levels of the quality of teachers' professional development programmes in Edo South Senatorial district of Edo State range from 2.65 to 3.46. The corresponding t –values range from 13.15 to 21.72 and they are significant at .000 probability level. Thus the null hypothesis is rejected at

0.05. This means that the mean level of professional development programe available to teachers in secondary schools in Edo South Senatorial District of Edo State is significant.

Hypothesis 2
The level of teaching effectiveness of teachers in Edo South Senatorial District of Edo State is not significant.

The summary of One Sample t Test Statistics of the Level of Teaching Effectiveness of Teachers in Edo South Senatorial District of Edo State is presented in table 10

Table 10: Summary of One Sample t Test Statistics of the Level of Teaching Effectiveness of Teachers in Edo South Senatorial District of Edo State

SN	Item	Mean diff	t	df	Sig. (2-tailed)	Decision
1	Ensures lesson plan are prepared effectively	2.64714	16.307	6	.000	Significant
2	Demonstrates mastery of subject content	2.25857	13.804	6	.000	Significant
3	Use appropriate teaching methods during teaching	2.12429	8.790	6	.000	Significant
4	Motivates students to participate actively in class	2.29286	11.115	6	.000	Significant
5	Is able to complete the syllabus within the stipulated time	2.39857	14.899	6	.000	Significant
6	Maintains discipline in the classroom	2.11571	11.262	6	.000	Significant
7	Encourages students to ask questions during lessons	1.84286	6.687	6	.001	Significant
8	Is punctual to class	2.59857	17.700	6	.000	Significant
9	Attends school regularly	2.55000	14.238	6	.000	Significant
10	Is able to control disruptive behaviour during class activities	2.27286	9.194	6	.000	Significant
11	Ensures students work are promptly evaluated	1.87714	6.604	6	.001	Significant
12	Returns scripts promptly	1.82143	8.075	6	.000	Significant
13	Aggregate	26.80000	13.062	6	.000	Significant

Test value = 0

Table 10 statistics showed that the mean differences between the mean values of the indicators of teaching effectiveness and the test value (0) range from 1.82 to 2.65, the corresponding t values range from 6.687 to 17.700 and their significant levels are either .000 or .001. The significant levels of the indicators are less than 0.05. Thus the null hypothesis is rejected at 0.05. This means that the level of teaching effectiveness of teachers in public secondary school teachers in Edo South Senatorial District of Edo State is significant

Hypothesis 3
The relationship between quality of teachers' professional programmes and teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State is not significant

The Summary of the Pearson Correlation Statistics between quality of teachers' professional programmes and teaching effectiveness of teachers in secondary schools in Edo South senatorial district of Edo State is presented in table 11

Table 11: Summary of the Pearson Correlation between Quality of Teachers' Professional Programmes and teaching effectiveness of teachers in Secondary Schools

Model	N	Sum of Squares and Cross-products	Covariance	Pearson r	Sig (2-tailed)	Decision
QTPDP	7	-44.881	-7.480	-.338	.458[b]	Retain Ho
TE	7	176.815	29.469			

Table 11 statistics showed that the Pearson correlation between quality of teachers' professional development programmes and teaching effectiveness of teachers in secondary schools in Edo south senatorial district of Edo State has coefficient of -.338. The coefficient is significant at .458. Thus the null hypothesis is retained at 0.05. The implication is that the relationship between quality of teachers' professional development programmes and teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State is not significant

Hypothesis 4
The relationship between the Quality of Teachers' Professional Development programme and Teaching Effectiveness of teachers based on gender in Edo South Senatorial District of Edo State is not Significant

The summary of the point- biserial correlation between the quality of professional development programme and teaching effectiveness of teachers based on gender in secondary schools in Edo South Senatorial District of Edo State is presented in table 12

Table 12: Point- Biserial Correlation between the Quality of Teachers Professional Development Programmes and their teaching effectiveness in Edo South Senatorial District

Model	N	Mean	SD	r_{pb}	Sig (2 tailed)	Remark
Male	51	28.377	7.14	0.039	0.80	Retain Ho
Female	58	25.74	7.220			

Table 12 statistics showed that the Point-biserial correlation between the quality of teachers' professional development programmes and teaching effectiveness of teachers based on gender in secondary schools in Edo south senatorial district of Edo State has coefficient of 0.039. The coefficient is significant at. 0.80. Thus the null hypothesis is retained at 0.05. The implication is that the relationship between the quality of teachers' professional development programmes and teaching effectiveness of teachers based on gender in secondary schools in Edo South Senatorial District of Edo State is not significant

Hypothesis 5

The relationship between the quality of professional development programmes and teaching effectiveness of teachers based on years of teaching experience in Edo South Senatorial District of Edo State is not significant.

The summary of the Spearman Correlation Analysis between the quality of professional development programme and teaching effectiveness of teachers based on years of teaching experience in secondary schools in Edo South Senatorial district of Edo State is presented in table 13.

Table 13: Spearman Correlation Analysis between the quality of Professional Development Programme (QPDP) and teaching effectiveness of teachers based on Years of Teaching Experience (TE)

Model	N	Correlation Coefficient	Sig. (2-tailed)	Decision
QTPDP TE	111 111	-.139	.146	Retain Ho

Table 13 statistics showed that the Spearman correlation between the quality of professional development programmes and teaching effectiveness of teachers based on years of teaching experience in secondary schools in Edo South Senatorial District of Edo State has coefficient of -.139. The coefficient is significant at .146. Thus the null hypothesis is retained at 0.05. The implication is that the relationship between the quality of professional development programmes and teaching effectiveness of teachers in Edo South Senatorial District of Edo State is not significant

Hypothesis 6

The relationship between the quality of Professional Development Programmes and teaching effectiveness of teachers based on school location in secondary Schools in Edo South Senatorial District of Edo State is not significant.

The summary of the Point- Biserial correlation between the quality of professional development programme and teaching effectiveness of teacher based on school location in secondary schools in Edo South Senatorial District of Edo State is presented in table 9

Table 14: Point- Biserial Correlation between the Quality of Professional Development Programme and Teaching Effectiveness of Teachers based on School Location in Secondary Schools

Model	N	Mean	SD	r_{pb}	Sig(2-tailed)	Decision
Urban	70	29.23	5.99	0.25	0.06	Retain Ho
Rural	41	23.19	7.74			

Table 14 statistics showed that the Point biserial correlation between the quality of professional programmes and teaching effectiveness of teachers based on school location in secondary schools in Edo south senatorial district of Edo State has coefficient of 0.25. The coefficient is significant at. 0.06. Thus the null hypothesis is retained at 0.05. The implication is that the relationship between the quality of teachers' professional development programmes and teaching effectiveness of teachers based on school locations in secondary schools in Edo South Senatorial District of Edo State is not significant

Summary of Major Findings

1. The aggregate mean value of the levels of quality of teachers' professional development programmes in Edo South Senatorial District collectively is 3.04 with a standard deviation of 0.51 which was considered moderate and it was significant at 0.05 alpha level

2. The aggregate mean value of the levels of teaching effectiveness in Edo south senatorial district collectively is 2.23 with a standard deviation of 0.55 which was considered moderate and it was significant at 0.05 alpha level
3. The study showed that the relationship between quality of teachers' professional development programmes and teaching effectiveness of teachers is negative with 9.5% coefficient of determination. This means that the perceived levels of quality of teachers' professional development programmes explained 9.5 percent of the variation in the levels of teaching effectiveness. This value is closer to zero than the median, thus considered low and was not significant at 0.05 alpha level.
4. The study showed that the relationship between the Quality of teachers' Professional development Programmes and their teaching effectiveness basdd on gender has 0.15% coefficient of determination. This means that gender explained only 0.15 percent of the variation in the Quality of teachers' Professional development Programmes and their teaching effectiveness. This is closer to zero than the median, thus considered low and was not significant at 0.05 alpha level.
5. The study showed that the relationship between the Quality of teachers' professional development Programmes and their teaching effectiveness based on teaching experience was negative with 1.9% coefficient of determination. This means that years of teaching experience explained only 1.9 percent of the variation in the Quality of teachers' Professional development Programmes and their teaching effectiveness based on teaching experience. This value is closer to zero than the median, thus considered low and was not significant at 0.05
6. The study showed that the relationship between the Quality of teachers Professional development Program and their teaching effectiveness based on school location has

6.11% coefficient of determination This means that school location explained 6.11 percent of the variation in the Quality of teachers' Professional development Programmes and their teaching effectiveness based on school location. This value is closer to zero than the median, thus considered low. This was also not significant at 0.05 probability level

Discussion of Findings

The first finding of the study showed that the level of quality professional development programmes available to teachers in secondary school in Edo South Senatorial District is moderate and is significant. This implies that teachers in the study Edo South Senatorial District may have access to professional development opportunities that enhance their knowledge, pedagogical skills, classroom management abilities, and professional competence. However, the moderate level implies that the Professional development programmes available to them may not be sufficiently regular, comprehensive, or intensive to fully meet the professional needs of teachers. The finding further indicates that while these teachers are exposed to workshops, seminars, conferences, mentoring programmes, and in-service training, these opportunities may not be consistently be organized or adequately geared towards emerging challenges in teaching and learning. This limitation to full access of professional development programmes may further be attributed to challenges such as inadequate funding and lack of continuous follow-up after training programmes. Some teachers may have unequal access to professional development opportunities, particularly in situations where training programmes are selectively offered or concentrated in specific subject areas. This finding is in agreement with the findings of Hyler and Gardner (2017), who examined effective teacher professional development and reported that although teachers participate in various professional development activities, the quality of such programmes often varies considerably across schools and educational systems. The study revealed that many professional development

programmes provide moderate opportunities for teacher growth because they are not sufficiently sustained, collaborative, or focused on classroom practice. The finding is also in line with the findings of Desimone and Garet (2015), who found that professional development programmes available to teachers frequently produce moderate outcomes due to challenges associated with duration, content focus, active learning, and follow-up support. The study emphasized that teachers benefit most when professional development programmes are continuous and directly connected to classroom instruction. Similarly, the finding corroborates the findings of Avalos (2011), who investigated teacher professional development and found that while teachers generally have access to professional learning opportunities, the effectiveness and quality of such programmes are often moderate because of implementation challenges, inadequate resources, and limited opportunities for sustained professional engagement.

The second finding of the study showed that there is a moderate level of teaching effectiveness among teachers in Edo south senatorial district of Edo State and it is significant. This implies that teachers in Edo South Senatorial District demonstrate a fair level of competence in carrying out their instructional responsibilities, including lesson preparation, classroom management, and classroom interaction. The finding also showed that teachers are reasonably effective in facilitating learning and achieving instructional objectives, but their effectiveness has not reached the optimum level required to maximize students' academic outcomes. It further indicates that teachers possess the necessary knowledge and skills to perform their duties, although certain challenges may be limiting their ability to perform at a very high level. The moderate level of teaching effectiveness may be attributed to factors such as inadequate instructional facilities, limited access to modern teaching resources, insufficient motivation, and varying levels of professional support. Although teachers may be committed to their duties, these challenges could hinder the consistent application of effective teaching

practices. This finding is in agreement with the findings of Toropova, Myrberg and Johansson (2021), who examined teacher job satisfaction and teaching effectiveness and found that teachers generally demonstrated moderate levels of effectiveness, largely influenced by school conditions and professional support systems. The finding is also in line with the findings of Klassen and Kim (2019), who reported that teacher effectiveness is often moderate in educational settings where teachers experience challenges relating to workload, instructional resources, and opportunities for professional growth. Similarly, the finding corroborates the findings of Zee and Koomen (2016), who found that teachers' effectiveness is influenced by both personal and environmental factors, with many teachers demonstrating moderate levels of effectiveness due to contextual constraints within the school environment.

The third finding of the study showed that the quality of professional development programmes relates to teaching effectiveness of teachers in Edo South Senatorial District effectiveness to a low extent. This relationship is not significant. This showed that the quality of professional development programmes available to teachers contributes to variations in their teaching effectiveness. The finding implies that improvements in the quality of professional development programmes may not necessarily result in substantial improvements in teachers' effectiveness. It further indicates that other factors beyond professional development may play a more important role in determining teaching effectiveness. The low and non-significant relationship may also suggest that many professional development programmes attended by teachers are not sufficiently aligned with classroom realities or teachers' specific instructional needs. It is also possible that some programmes are organized primarily to fulfil administrative requirements rather than to address practical teaching challenges. Therefore, teachers may not be able to effectively transfer the knowledge and skills acquired during training into classroom practice, thereby limiting the influence of professional development on their effectiveness.

This finding is in contrast with the findings of Kraft, Blazar and Hogan (2018), who found a significant positive relationship between high-quality professional development programmes and teachers' instructional effectiveness. Their study revealed that professional development programmes improve classroom instruction and student achievement when they are intensive, sustained, and content-focused. The finding is also contrary to the findings of Darling-Hammond, Hyler and Gardner (2017), who reported that effective professional development programmes significantly improve teachers' instructional practices, pedagogical competence, and overall effectiveness. The finding is also in contrast with the findings of Adeola (2021), who found that professional development programmes incorporate deliberate practice, feedback, and sustained support which significantly enhance teaching quality and effectiveness.

The fourth finding of the study showed that the extent to which quality professional development programmes relate to teaching effectiveness of teachers based on gender is low and the relationship is not significant. This implies that gender does not substantially influence the relationship between quality professional development programmes and teaching effectiveness among teachers in Edo South Senatorial District. The finding suggests that both male and female teachers benefit similarly from professional development opportunities and that differences in teaching effectiveness cannot be attributed to gender-based variations in access to or participation in professional development programmes. The finding further indicates that professional development programmes are likely designed and implemented in a manner that provides relatively equal opportunities for both male and female teachers. As a result, any improvements in instructional competence arising from professional development programmes are experienced similarly across gender categories. The low and non-significant relationship therefore suggests that gender is not an important factor in determining how professional development influences teaching effectiveness. This finding is in agreement with

the findings of Yusuf and Arifin (2021), who found no significant gender differences in the influence of professional development programmes on teachers' instructional performance. The finding is also consistent with the findings of Ulla and Perales (2021), who reported that both male and female teachers benefit similarly from professional learning opportunities and demonstrate comparable improvements in classroom practice after participation in professional development activities. Similarly, the finding corroborates the findings of Ndzi, Mutambara and Heloo (2023), who found that gender had no significant moderating influence on the relationship between professional development participation and teachers' effectiveness.

The fifth finding of the study showed that the extent to which quality professional development programmes relate to teaching effectiveness of teachers based on teaching experience is low and the relationship is not significant. This implies that teaching experience does not significantly alter the relationship between quality professional development programmes and teaching effectiveness. The finding showed that both experienced and less experienced teachers derive relatively similar benefits from professional development programmes and that differences in teaching effectiveness are not strongly associated with the difference in teaching experience of teachers. The low and non-significant relationship may indicate that the professional development programmes available to teachers in Edo South Senatorial district do not adequately differentiate between the learning needs of novice and experienced teachers. It is also possible that both teachers with more year of experience and those with less years of experience tend to engage in professional development programmes together as provided by the school, thus, there may not be any difference in development of teacher based on years of experience as all teacher tends to exposed to same amount of knowledge during each professional development programmes. This finding is in agreement with the findings of Richter, Richter and Marx (2021), who found that teaching experience did not significantly influence the effectiveness of professional development programmes among

teachers. The finding is also in line with the findings of Fischer, Fishman, Dede, Eisenkraft and Frumin (2022), who reported that teachers benefitted from professional development programmes regardless of their years of teaching experience.Similarly, the finding corroborates the findings of Van der Want, Den Brok, Beijaard, Brekelmans and Wubbels (2019), who found that professional learning activities contributed similarly to teacher development among both novice and experienced teachers. Therefore, the finding suggests that professional development programmes influence teaching effectiveness similarly across different levels of teaching experience.

The sixth finding of the study showed that the extent to which quality professional development programmes relate to teaching effectiveness of teachers based on school location is low and the relationship is not significant. This implies that school location does not significantly influence the relationship between quality professional development programmes and teaching effectiveness among teachers in Edo South Senatorial District. The finding suggests that teachers in both urban and rural schools tends to experience relatively similar outcomes from professional development programmes and that location does not significantly determine the effectiveness of such programmes. The low relationship may be attributed to increasing access to professional development opportunities across schools irrespective of location. This finding is in agreement with the findings of Ulla and Perales (2021), who found that school location did not significantly influence teachers' participation in professional development programmes or the benefits derived from such programmes. The finding is also consistent with the findings of König, Jäger-Biela and Glutsch (2020), who reported that teachers across different school contexts experienced comparable professional growth following participation in professional development activities. Similarly, the finding corroborates the findings of Trust, Carpenter and Krutka (2020), who found that advances in

technology-assisted professional development have reduced location-based disparities in teachers' access to professional learning and instructional improvement.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study examined the relationship between the quality of professional development programmes and teachers' effectiveness in secondary school in south senatorial district of Edo State. The study also determined the relationship between quality of professional development programmes and teachers' effectiveness based on gender, years of experience and school location. Six research questions were raised to guide the study with their corresponding six null hypotheses which were tested at 0.05 level of significance. The research questions raised are as follows:

1. What is the level of the quality of professional development programmes available to teachers in secondary schools in Edo south senatorial district?
2. What is the level of the teaching effectiveness of secondary school teachers in Edo south senatorial district of Edo State?
3. To what extent does quality of professional development programmes relates to teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State?
4. To what extent does quality of professional development programmes relates to teaching effectiveness of teachers based on gender?
5. To what extent does quality of professional development programmes relates to teaching effectiveness of teachers based on teaching experience?
6. To what extent does quality of professional development programmes relates to teaching effectiveness of teachers based on school location?

The hypotheses were stated as follows:

1. The level of quality of professional development programmes available to teachers in secondary schools in Edo South Senatorial District of Edo State is not significant.
2. The level of teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State is not significant.
3. The relationship between quality of professional development programmes and teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State is not significant.
4. The relationship between quality of professional development programmes and teaching effectiveness of teachers based on gender is not significant.
5. The relationship between quality of professional development programmes and teaching effectiveness of teachers based on teaching experience is not significant.
6. The relationship between professional development programmes and teaching effectiveness of teachers based on school location is not significant.

The design of the study was correlational and the population of the study was made up of 1,789 respondents this comprised 118 computer studies teachers in all public secondary school in Edo South and 1,671 SSII students offering Computer studies in all Secondary Schools in Edo South Senatorial District of Edo State. The sample size of the study was made up of 285 respondents representing the entire population of teachers and 10% of the total population of students which were randomly selected using the simple random sampling technique. The research instrument used for this study was a questionnaire. The instrument was validated and tested for its reliability and a dependable coefficient value was obtained. The data collected in the study were analysed using Mean, Standard deviation and Pearson Product Moment Correlation (PPMC). The results obtained from the study revealed that:

1. The level of quality professional development programmes available to teachers in secondary school in Edo south Senatorial district is moderate and is significant.
2. There is a moderate level of teaching effectiveness among teachers in Edo south senatorial district of Edo State and it is significant.
3. The quality of professional development programmes relates to teaching effectiveness of teachers in Edo South Senatorial District effectiveness to a low extent. This relationship is not significant.
4. The extent to which quality professional development programmes relate to teaching effectiveness of teachers based on gender is low and the relationship is not significant.
5. The extent to which quality professional development programmes relate to teaching effectiveness of teachers based on teaching experience is low and the relationship is not significant.
6. The extent to which quality professional development programmes relate to teaching effectiveness of teachers based on school location is low and the relationship is not significant.

Educational Implication

The findings of this study have important implications for educational policy, planning, and practice. The study suggests that educational authorities should shift attention from merely increasing the number of professional development programmes available to teachers toward improving their quality, relevance, and practical applicability to classroom instruction. This implies that professional development initiatives should be carefully designed to address teachers' actual instructional needs and provide opportunities for sustained professional growth. The study also implies that efforts aimed at improving teachers' effectiveness should adopt a realistic and general approach. Educational stakeholders need to recognize that teacher

effectiveness is influenced by multiple interacting factors, including school leadership, teacher motivation and institutional support. Consequently, policies that focus exclusively on professional development without addressing these complementary factors may yield limited results. Another implication of the study is that educational administrators should place greater emphasis on monitoring and evaluating the impact of professional development programmes rather than simply measuring participation rates. Attention should be directed toward determining whether teachers are able to apply acquired knowledge and skills in classroom practice and whether such application contributes to improved instructional outcomes.

The findings further imply that equal access to professional development opportunities should continue to be encouraged across schools and teacher categories. Since the effectiveness of professional development does not appear to vary substantially based on gender, teaching experience, or school location, educational planners should focus on ensuring quality and accessibility for all teachers rather than designing programmes around demographic differences.

Conclusion

In conclusion, this study, the study showed that the success of professional development programmes depends largely on their relevance to teachers' needs and the level of support provided by educational institutions. The study further revelaed that while professional development programmes remain an important component of teacher growth and capacity building, their influence on teachers' effectiveness may not be as substantial as commonly assumed. The study indicates that teacher effectiveness cannot be explained solely by participation in professional development activities. Rather, the effectiveness of teachers appears to be influenced by a combination of factors operating within and outside the school environment, including institutional support, leadership practices, teacher motivation, availability of instructional resources, working conditions, and opportunities for continuous

professional learning. The study further reveled that the benefits associated with professional development programmes may depend not only on their availability but also on their quality, relevance, implementation processes, and alignment with teachers' professional needs. This indicates that educational stakeholders must move beyond viewing professional development as a routine administrative exercise and instead regard it as a strategic tool that requires careful planning, adequate funding and effective monitoring if meaningful improvements in teacher performance are to be achieved.

Contributions to Knowledge

This study has contributed to existing body of knowledge as it reveals various areas in which teacher professional development is relevant in improving the teaching effectiveness of teachers in secondary schools in Edo South Senatorial District of Edo State. The study highlights the possibility that factors beyond professional development programmes may exert greater influence on teachers' effectiveness. This finding expands existing understanding of teacher effectiveness as one that is influenced not only by professional learning opportunities but also by organizational, environmental, motivational, and institutional factors. Moreso, the study challenges the assumption that professional development alone is sufficient to produce substantial improvements in teaching effectiveness.

This study also has significant contribution to knowledge in its demonstration that demographic variables such as gender, teaching experience, and school location do not appear to substantially alter the relationship between professional development programmes and teachers' effectiveness. This provides additional insight into the universality of professional development outcomes and suggests that the effectiveness of such programmes may depend more on their quality, relevance, and implementation than on teachers' personal or contextual characteristics. Finally, the study advances knowledge by emphasizing that improving teacher effectiveness requires a comprehensive and integrated approach that extends beyond the

provision of professional development programmes to include broader institutional and organizational support systems.

Recommendations

Based on the findings of this study, the following recommendations were made.

1. The Edo State Ministry of Education and relevant educational agencies should improve the quality of professional development programmes by ensuring that they are regular, practical and directly related to teachers' classroom challenges.
2. School administrators should establish continuous professional support systems such as mentoring, coaching, peer collaboration, and professional learning communities to complement formal professional development programmes and enhance teachers' effectiveness.
3. Educational stakeholders should provide adequate funding and resources for the organization of high-quality professional development programmes to teachers.
4. Since professional development programmes alone were found to have limited influence on teachers' effectiveness, government and school authorities should also focus on improving teachers' working conditions, motivation, welfare packages, and access to instructional materials to enhance their overall performance.
5. Professional development programmes should be designed to accommodate the needs of all teachers irrespective of gender, teaching experience, or school location, while ensuring equitable access to training opportunities across schools.
6. School principals should regularly monitor and evaluate the implementation of professional development programmes to ensure that the knowledge and skills acquired during training are effectively applied in classroom instruction.

7. Teachers should engage in self-directed professional learning through research, online courses, professional associations, educational conferences, and collaborative learning activities in order to continuously improve their instructional competence.

Suggestion for Further Studies

The following studies are suggested for further findings;

1. Influence of Teachers' Professional Development on Students' Academic Achievement in Secondary Schools in Edo State.
2. Relationship Between Professional Development Programme and Teachers Job satisfaction in Secondary Schools in Edo South Senatorial District.
3. Impact of Staff Development on Teaching Effectiveness in Public Secondary Schools in Edo South Senatorial District.
4. Influence of Motivation on Teachers' Effectiveness in Secondary Schools in Edo State
5. Relationship Between School Leadership Practices and Teachers' Effectiveness in Secondary Schools in Edo State.

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APPENDIX

TEACHERS QUESTIONNAIRE

RELATIONSHIP BETWEEN QUALITY OF PROFESSIONAL DEVELOPMENT PROGRAMMES AND TEACHERS' EFFECTIVENESS IN SECONDARY SCHOOL IN SOUTH SENATORIAL DISTRICT OF EDO STATE

NSTRUCTIONS: Please tick (√) in the appropriate box that relates to you. Do not tick more than one for each statement.

SECTION A:
Demographic information

Gender: Male [ ] Female [ ]

Teaching Experience: 1- 5 years [ ] 10-15 years [ ] 16-20 years [ ] above 20years [ ]

School Location: Urban [ ] Rural [ ]

SECTION B: QUALITY OF PROFESSIONAL DEVELOPMENT PROGRAMME
INSTRUCTION: Please tick (√) to indicate the level of quality of professional development programme: Key: VHE = Very High Extent, HE = High Extent, M = Moderately, LE = Low Extent , VLE = Very Low Extent and NA= Not Applicable

	The Quality of Professional Development Programme of :	**VHE**	**HE**	**M**	**LE**	**VLE**	**NA**
1.	Physical training workshops organized annually for teachers in my school.						
2.	Online training opportunities for teachers						
3.	Seminars and conferences organized for teachers						
4.	Professional training organized by my school administrators.						
5.	Professional training organized by the government.						
6.	Essential topics covered during trainings and seminars						
7.	The time duration of each programme conducted are appropriate						

8.	The method of training adopted by the coaches are suitable						
9.	Relevant content covered in the training workshop						

STUDENT QUESTIONNAIRE

SECTION C: TEACHERS EFFECTIVENESS

INSTRUCTION: Please tick (√) to indicate the extent to which you agree or disagree with each statement by selecting one of the following options: Key: Always = 5, Often = 4, Sometimes = 3, Rarely = 2 and Never =1

	My Computer Studies Teachers;	**Always**	**Often**	**Sometimes**	**Rarely**	**Never**
10.	Ensures lesson plans are prepared effectively					
11.	Demonstrates mastery of subject content.					
12.	Uses appropriate teaching methods during lessons.					
13.	Motivates students to participate actively in class.					
14.	Is able to complete the syllabus within the stipulated time.					
15.	Maintains discipline in the classroom.					
16.	Encourages students to ask question during lesson					
17.	Is punctual to class					
18.	Attends school regularly					
19.	Is able to control disruptive behaviour during class activities					
20.	Ensures students work are promptly evaluated					
21.	Returns scripts promptly					

APPENDIX II

RELIABILITY OUTPUT

```
RELIABILITY
  /VARIABLES=SCORE1 SCORE2
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability PROFESSIONAL DEVELOPMENT

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.767	2

```
RELIABILITY
  /VARIABLES=SCORE1 SCORE2
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability TEACHERS EFFECTIVENESS

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.848	2