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Assessing the perceptions and experiences of teachers regarding the impact of professional development on students' learning: An inquiry at Sabs Dayspring Community School, Kumasi Metropolis

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Abstract

This mixed-method study aimed to assess teachers' perceptions and experiences regarding the impact of their professional development on students' learning at SABS Dayspring Community School in the Kumasi Metropolitan Assembly district of the Ashanti region. Participants were invited to partake in the study using the convenience sampling method. Data were collected through questionnaires, interviews, and observations. Descriptive and inferential statistics were utilized to analyze the quantitative strand of the study, while thematic content analysis was employed to examine the qualitative strand. Correlation and regression analysis of hypotheses and research questions revealed a moderate positive correlation and a significant impact of professional development on teachers' instructional practices ($p = .002$) and students' learning ($p = .032$) at SABS Dayspring Community School. The thematic analysis of the study revealed that teachers perceive professional development as a means to support their professional growth and enhance students' learning. However, they also perceive a mismatch between the professional development programs and their classroom needs and modalities. The study also revealed other barriers, such as a lack of sustained professional development workshops, follow-up and feedback, teacher ownership and involvement in planning and developing professional development, and a lack of motivation for teachers to partake in professional development. The study, therefore, offered recommendations for the school to align its professional development programs with the specific needs and realities of teachers' classrooms by investing in modern technology. Other recommendations included enhancing duration and continuity, aligning professional development with classroom contexts, providing motivation, incorporating teacher input, and implementing follow-up and feedback mechanisms to deal with challenges

Keywords: Professional development, Teachers' perceptions, Experiences, Instructional practices, Student outcomes

Introduction

Over the years, high-standard education has become an imperative element for societal progress. While numerous contributors have been recognized for promoting students' learning outcomes, quality teachers are widely acknowledged as crucial in ensuring excellence in education and student achievement (Engida, Iyasu, & Fentie, 2024). Teachers are responsible for enhancing their abilities through ongoing training and development opportunities, and they must keep pace with technological advancements and new trends through professional training to meet the evolving demands of education. By doing so, it helps keep them relevant in their field (Olaniyan & Uzorka, 2024). Professional development (PD) refers to the ongoing process by which educators enhance their knowledge, skills, and instructional strategies to improve teaching effectiveness and student learning outcomes. This continuous learning encompasses various activities, including workshops, seminars, and collaborative learning experiences, aimed at adapting to evolving educational demands (Strobel Education, 2023). In practice, Teacher Professional Development (TPD) encompasses both formal and informal learning experiences that enable educators to enhance their instructional practices through continuous learning and reflective processes, ultimately improving student outcomes (DJOUB, 2024). Excellence in education is realized through qualified, skilled, and inspired teachers who play a crucial role in implementing instructional policies, making them essential to the success of any educational system's instructional initiatives. As a matter of importance, teacher professional development should ponder on the effectiveness of aligning with teachers' needs, the structure of the professional development activities, and the understanding of teachers' perceptions and experiences (Pulatsü & Mirici, 2022).

However, in Ghana, there remains a significant gap in understanding teachers' perceptions regarding the relevance and practicality of professional development (PD) initiatives. Recent studies indicate that while PD programs are implemented, their effectiveness in influencing teachers' attitudes, knowledge, practices, and ultimately students' learning outcomes is not fully realized, highlighting the need for more targeted and responsive PD strategies (Salifu et al., 2024). This lack of comprehensive data poses a significant challenge in helping to design professional development

programs that are responsive to the actual needs of teachers and conducive to meaningful educational improvements. Research indicates that teachers' perceptions of professional development (PD) programs significantly influence their engagement and the effectiveness of these programs (Ahmad et al., 2023). When teachers perceive PD initiatives as irrelevant or impractical, their motivation to engage and implement new strategies diminishes, thereby reducing the potential impact on teaching practices and student learning outcomes (Richter, Fütterer, Eisenkraft, & Fischer, 2025). Although there have been significant efforts to provide educators with professional development (PD) opportunities for career growth, concerns persist that these programs often fail to align with the practical needs and realities teachers face in their classrooms. This misalignment limits the effectiveness of instructional practices and hinders improvements in student achievement (Ajani, 2023). Recent research indicates that many professional development (PD) programs in Ghana are developed without sufficient input from teachers regarding the planning and development of these programs.

Consequently, these programs often fail to address the practical challenges teachers face in the classroom, such as large class sizes, lack of teaching and learning materials (TLMs), and diverse student needs (Salifu, Agyekum, & Nketia, 2024). Efforts to enhance teacher capabilities through professional development (PD) have often centered on short, one-off workshops. While these sessions can introduce new concepts and techniques, they frequently lack the sustained, embedded training necessary to effect lasting changes in teaching practices and improve student achievement. Research indicates that such brief workshops have minimal impact on student outcomes, emphasizing the need for ongoing, collaborative, and context-specific PD programs (Darling-Hammond et al., 2017). For *TPD* to be effective, it must be ongoing, context-specific, and integrated into teachers' daily needs and preferences of their professional experiences (Abonyi et al., 2020). Gyamfi (2016) also emphasizes that the lack of sustained *PD* training programs, follow-up support, and practical applications negatively impacts student learning outcomes in the sense that, without continuous and embedded support, teachers struggle to adopt and maintain effective instructional practices that can improve student achievement.

Objectives

1) To explore teachers' firsthand experiences and perceptions of participating in professional development initiatives at SABS Dayspring Community School.
2) To assess teachers' experiences and perceptions of how professional development has affected their attitudes, knowledge, and methods of instruction in the classroom.
3) To investigate the significance of instructors' professional development on students' learning at SABS Dayspring Community School.

Research Questions

1) How do teachers perceive and describe their experiences participating in professional development initiatives at SABS Dayspring Community School?
2) How do teachers view the impact of professional development on their attitudes, knowledge, and instructional practices in the classroom?
3) How do teachers perceive the relationship between professional development programs and student learning outcomes?

Research Hypotheses

- Ho_1: Teachers' professional development initiatives at SABS Dayspring Community School have no significant predictive influence on their instructional practices.
- H_1: Teachers' professional development initiatives at SABS Dayspring Community School significantly predict their instructional practices.
- Ho_2: No significant predictive relationship exists between teacher professional development initiatives and student learning outcomes at SABS Dayspring Community School.
- H_2: A significant predictive relationship exists between teacher professional development initiatives and SABS Dayspring Community School student learning outcomes.

Review of Related Literature

Theoretical Foundations Underpinning the Study of *TPD* in Ghana

The study is underpinned by Malcolm Knowles' Adult Learning Theory, commonly called Andragogy. It is described as both the art and science of facilitating adult learning in its most basic form. Malcolm Knowles' theory of andragogy emphasizes that adult learners differ fundamentally from younger learners, necessitating distinct instructional approaches. He highlighted the importance of leveraging adult learners' unique experiences, self-direction, and readiness to learn, asserting that adults must be taught differently from children due to the distinct nature of their learning processes (Bouchrika, 2025). This theory is relevant to this study because SABS Dayspring Community School teachers are adult learners engaging in professional development. Mirroring other learning theories, this theory articulates five essential principles, which include the following.

Learners operate autonomously and actively self-direct their educational process (self-concept). Unlike children, who often rely on teachers for guidance, adults are in a more mature developmental phase and generally have established self-concepts conducive to learning. This permits them to direct their own educational path, identify their learning needs, set personal goals, and choose appropriate resources and methods that align with their career aspirations and classroom challenges. This principle asserts that teachers should be given the opportunity to engage in learning activities and have the freedom to make decisions in their learning process, with outcomes subject to evaluation. This can be achieved through self-assessment tools, individualized learning plans, and various learning options such as

workshops, online courses, and peer collaboration (Knowles, 1980).

Adult learners bring a wealth of accumulated personal and professional experiences to the learning environment, distinguishing them from younger learners who are still building their experiential foundations. These prior experiences serve as valuable resources, enabling adults to connect new information to existing knowledge, thereby enhancing the relevance and applicability of learning. Incorporating experiential learning strategies into professional development programs can leverage these experiences, fostering deeper engagement and facilitating the practical application of new skills in real-world contexts (Park University, 2025).

Learners are aspirational or high-reaching. This also explains that adults are seen as goal-oriented. They are frequently intrinsically motivated and have personal reasons for engaging in educational activities. They often have specific objectives or goals they aim to achieve (such as personal growth, job satisfaction, and professional pride), so they select learning activities that are aligned with achieving those goals. Therefore, program coordinators must ensure clear alignment between program objectives and the personal goals of teachers. As contributors, adult educators, following Knowles (1980), must prioritize the existential concerns of the individuals and the institutions they support and design learning experiences that effectively address these concerns.
Adult learners exhibit a readiness to learn that is closely tied to their immediate life situations, roles, and developmental tasks. This principle suggests that adults are more inclined to engage in learning when they perceive the material as relevant and applicable to their personal or professional lives. Recognizing this readiness is crucial in designing educational programs that align with adult learners' goals and motivations, thereby enhancing their commitment to the learning process (Whatfix, 2024). Given this assumption, educational institutions are tasked with designing *PD* programs for teachers that are both relevant and practical, aimed at enhancing their knowledge and skills for effective classroom practice.

Adult learners often approach the learning process with a problem-solving mindset, seeking out activities that have a direct and meaningful impact on their personal and professional lives. They prefer hands-on, practical learning methods that allow them to apply new knowledge immediately, making learning purposeful and relevant to their experiences (Bouchrika, 2025). This assumption compels education managers to create pragmatic programs that deliver practical solutions to teachers' challenges in their everyday teaching and professional lives.
While the adult learning theory, particularly andragogy, has been foundational in understanding adult education, recent critiques highlight its lack of empirical evidence and the applicability of its assumptions to both adults and children. Some scholars argue that the distinctions made between adult and child learners are not as clear-cut as originally proposed, suggesting that many of the principles may apply across age groups (Dantus, 2021). Knowles (1980) recognized learning as a continuum spanning from teacher-led to student-directed activities. His later writings asserted that each situation must be assessed individually to ascertain students' appropriate level of self-direction. Nonetheless, the concept remains valuable for grasping adult education in the present age. Educators should apply andragogic strategies to boost the impact of their adult education initiatives and address the professional needs of teachers. Integrating these principles is essential for successful teacher professional development and enhanced learning.

The Concept of Teacher Professional Development (*TPD*)
Across various countries, the role and function of schools, along with the expectations placed on teachers, are evolving. Educators are expected to instruct in progressively varied classrooms, prioritize the integration of students with unique learning requirements, utilize information and communication technologies more efficiently, participate in planning within assessment and accountability structures, and actively collaborate with parents in school activities (Organization for Economic Co-operation and Development [OECD], 2024). Regardless of its thoroughness, teacher induction training alone cannot fully prepare teachers for the challenges of their careers. Education systems must offer continuous opportunities for ongoing teacher development to maintain high teaching standards and retain a top-tier teacher workforce.

The Organization for Economic Co-operation and Development (OECD, 2024) emphasizes that effective professional development (PD) for teachers is an ongoing process that includes development, practical application, feedback, and sufficient time and follow-up. This approach ensures that PD activities are aligned with teachers' needs and the evolving demands of education systems. Educators are pivotal in fostering collaborative educational settings and should actively participate in activities that mirror those of their students. Teacher Professional Development is defined by Kampen (2019) as "any sort of continuing education effort for educators." It is a beneficial pathway for teachers to expand their pedagogical knowledge, leading to improved student outcomes. The primary objective of *TPD* is to equip educators with innovative teaching strategies and methods informed by the latest research, coupled with effective execution techniques. This process enhances teachers' expertise and abilities, leading to improved educational outcomes. Furthermore, *TPD* fosters the acquisition and thoughtful enhancement of knowledge, skills, and emotional competence necessary for effective professional reflection, planning, and practice throughout their teaching careers (OECD, 2024).
For PD to be effective, programs for educators must be content-driven, aiming to enhance both subject-matter knowledge and pedagogical skills. Experts argue that such programs should be strategically designed to directly improve classroom instruction and student outcomes (OECD, 2024). Furthermore, PD should aim to refine teachers' instructional approaches, enhance self-efficacy, and strengthen their confidence and commitment to teaching. Effective PD is

essential for continuous teacher learning, enabling educators to critically reflect on their practices, adapt to evolving educational needs, and prepare for future responsibilities. Ultimately, this approach benefits both individual teachers and the broader educational system (OECD, 2024).

TPD has a repercussion on student learning, according to Kampen (2019). Effective teachers excel at guiding and educating students. Great teachers are forged through continuous learning and access to Professional Development resources. This is especially crucial for those educating students with special needs or those performing outside grade-level expectations. Without question, instructors armed with ongoing learning opportunities are far better equipped to excel in their roles, particularly when facing diverse educational challenges. The link between professional growth and teaching excellence is undeniable, especially in complex learning environments.

TPD inspires instructors to espouse a growth mentality. Meaningful and targeted *PD* programs for teachers directly boost student achievement and cultivate a growth mindset. These programs equip educators with advanced skills and knowledge, leading to improved instructional practices. As a result, students benefit from enhanced learning experiences, develop stronger academic capabilities, and adopt a more positive attitude towards challenges and personal growth. *TPD* enables educators to engage actively in their own learning, which in turn fosters enthusiasm for learning among both students and teachers. By providing learning opportunities and support, *TPD* demonstrates to educators that the school community values their efforts and is committed to their success (Appiah, 2021).

Methodology

Research Design, Instruments, and Setting

This study utilized a sequential explanatory blended method design, with a preliminary phase of metric-based data analysis followed by a phase of narrative analysis that will support the quantitative data analysis. The study employed first-generation statistics (descriptive and inferential statistics) to examine the quantitative data. Descriptive statistics were used to explore teachers' firsthand experiences and perceptions of participating in *PD* initiatives at SABS Dayspring Community School. Also, inferential statistics were used to assess the connection and impact of *TPD* on their teaching strategies and learning approaches in the classroom and to test the hypotheses of the study. The study's qualitative component used a phenomenological approach through thematic analysis to investigate the perceptions and lived experiences of teachers participating in *PD* programs at SABS Dayspring Community School.

In pursuit of the research objectives, questionnaires, interviews, and observations were utilized to organize data. 20 copies of 5-point scale Likert structured, self-administered questionnaires were distributed to all participants at SABS Dayspring Community School. A one-on-one interview session was also conducted with the study participants using a semi-structured interview guide as the primary tool. Also, the researchers organized participant observation for an in-depth understanding and explanation of the results obtained. The field location where the investigator conducted the research was the Kumasi Metropolis within the Ashanti Region of Ghana, in a suburb called Ahodwo.

Population Size and Sample Technique

The targeted population comprises teachers currently employed at SABS Dayspring Community School at Ahodwo within the Kumasi Metropolis. As of the time this study was conducted, the total number of teachers in the school was 20, representing the entirety of the teaching staff eligible for participation in this research. The researchers used a non-random sampling technique, specifically a convenience sampling technique, in this study. This technique was used to select respondents due to their convenient accessibility and willingness to participate in the study. In accordance with census methodology, the sample size for this investigation is commensurate with the size of the targeted population due to its small manageable size. Consequently, all 20 instructors at SABS Dayspring Community School were invited to participate, ensuring each could share their perspectives on PD's impact on student learning.

Data Analysis Technique

For the quantitative data, responses gathered from the questionnaires were broken down to enable investigations. The responses were exported and coded into the Jamovi software (version 2.4.14) for descriptive analysis and inferential statistics resolution. Thematic analysis was used to analyze the qualitative aspect of the study. This approach was suitable because it identified, analyzed, and reported patterns (themes) within the data. Also, the data was organized based on the participant observation of the study. The data included well-organized and comprehensive descriptive notes and reflective notes compiled by the researchers.

Reliability and Validity of the Instruments

To ascertain the validity of the instrument, the questionnaire was subjected to meticulous scrutiny by the researchers's academic supervisor and his peers. He determined the instrument's content validity by examining the research questions related to the instrument's items to ensure measurement accuracy. This was done on a one-on-one basis, as he provided guidance and assistance to the researchers. A pilot study was also conducted by the researchers at SABS from a sample of the respondents to determine Cronbach's Alpha (α) using Jamovi (version 2.4.14). This was done to test the reliability of research instruments and methods before conducting the main study. A reliability coefficient of 0.827 was obtained, which affirms DeVellis's (1991) view that a reliability coefficient of 0.70 or more is suitable to establish the reliability of an instrument.

Ethical Considerations

The researchers maintained respondent anonymity by excluding names from any responses. Participants' privacy and autonomy were respected, allowing data to be gathered most conveniently. Ethical standards were upheld to collect relevant data for analysis. Also, scholarly works and data were appropriately referenced and cited, following the guidelines

of the Kwame Nkrumah University of Science and Technology's code of conduct to meet research objectives.

Presentation and Discussion of Findings

Demographic Characteristics of Respondents

The demographic characteristics of the respondents within the study area comprise variables such as gender, age, educational status, and number of years of teaching experience (See Table 1).

Table 1: Demographic Distribution of Respondents

Variables	Categories	Count	%
Gender	Male	5	25.0
	Female	15	75.0
	Total	20	100.0
Age	18-25	3	15.0
	26-35	13	65.0
	36-50	4	20.0
	Total	20	100.0
Educational Status	SHS graduate	1	5.0
	Diploma	6	30.0
	Bachelor's degree	13	65.0
	Total	20	100.0
Teaching Experience	Less than 1 year	1	5.0
	1-3 years	4	20.0
	4-7 years	10	50.0
	8-10 years	4	20.0
	More than 10 years	1	5.0
	Total	20	100.0

Source: Researchers' Field Survey, 2024

According to the gender variable in Table 1, 25.0% (5) of the respondents are males, while a significant majority, 75.0% (15) are females. The age range variable showed that most respondents fall within the 26-35 age group, with 13 individuals representing 65.0% of the total sample. In contrast, the 18-25 age group accounted for 15.0% (3) of the respondents, and the 36-50 age group comprised 20.0% (4) of the respondents in this category. Again, according to the educational status of the respondents, the data revealed that the majority of teachers possess a Bachelor's degree, with 13 out of 20 respondents, representing 65.0% of the total sample. On the other hand, 6 teachers hold a Diploma, accounting for 30.0% of the respondents. A small minority, consisting of 1 teacher (5.0%), was an SHS graduate, indicating some diversity in educational backgrounds. Finally, the frequency distribution provided insights into the number of years of teaching experience of the respondents. The data indicated that the largest group of teachers, 50.0% (10) of the respondents, have between 4-7 years of teaching experience. Two groups, those with 1-3 years and 8-10 years of experience, each comprised 20.0% (4) of the sample. The least represented groups were those with less than 1 year and more than 10 years of experience, each accounting for 5.0% (1) of the respondents.

Teachers' Perceptions Regarding *PD* Initiatives at SABS: This section analyzed results concerning teachers' perceptions regarding *PD* initiatives in which they have participated (See Table 2).

Table 2: *Teachers' Perceptions Regarding PD Initiatives at SABS*

Statements	N	Responses	Count	%	Mean	SD
I believe the *PD* initiatives I have participated in are relevant to my teaching needs at SABS.	20	Neutral	1	5.0	4.10	.447
		Agree	16	80.0		
		Strongly Agree	3	15.0		
I find the content of *PD* programs to be directly applicable to my classroom practices.	20	Neutral	10	50.0	3.55	.605
		Agree	9	45.0		
		Strongly Agree	1	5.0		
One-off *PD* workshops at SABS Dayspring Community School effectively enhance my teaching skills.	20	Strongly Disagree	2	10.0	2.05	.759
		Disagree	17	85.0		
		Strongly Agree	1	5.0		
I find it true that *PD* programs should be more sustained rather than short-term.	20	Agree	5	25.0	4.75	.444
		Strongly Agree	15	75.0		
Short-term workshops give me sufficient time to understand and apply new concepts.	20	Strongly Disagree	3	15.0	2.00	.649
		Disagree	15	75.0		
		Neutral	1	5.0		
		Agree	1	5.0		

Source: Researchers' Field Survey, 2024

From Table 2, the results show that a significant majority of teachers, 80.0% (16), agree and 15.0% (3), strongly agree with the relevance of *PD* initiatives to their teaching needs. Only 5.0% (1) was neutral and uncertain about the statement. This consistency and low variability in response across the sample indicate a strong agreement (M = 4.10, SD = .447). Also, 50.0% (10), expressed a neutral stance on the applicability of *PD* program content to their classroom practices, while 45.0% (9) of the respondents agreed with the statement. Only a small percentage of 5.0% (1) strongly agreed. This suggests a moderate agreement among teachers regarding the direct applicability of *PD* content to classroom practices, with relatively moderate response variations that reflect a general trend toward neutrality or slight agreement (M = 3.55, SD =

.605). This postulates that many teachers may not be fully convinced of the *PD* content's relevance to their specific teaching needs. This might be due to a lack of direct alignment between the *PD* materials and the practical challenges they face in the classroom.

A majority of teachers, 85.0% (17), expressed disagreement about the effectiveness of one-off *PD* workshops in enhancing their teaching skills, while a smaller percentage strongly disagreed, 10.0% (2). Only a minimal number, 5.0% (1), strongly agreed with the statement. This response consistency indicates a general disagreement among teachers regarding the effectiveness of one-off *PD* workshops in enhancing teaching skills (M = 2.05, SD = .759), with most teachers aligning towards a common viewpoint. With the majority of respondents disagreeing with the effectiveness of these workshops, it suggests that teachers might prefer more continuous *PD* programs rather than short-term, isolated events. Again, from the results, the majority of teachers, 75.0% (15), strongly agreed, indicating a near-universal preference for *PD* programs that are ongoing and continuous rather than brief or one-off, and an additional 25.0% (5) agreed. This indicates a strong consensus among teachers that *PD* programs should be sustained and continuous rather than short-term (M = 4.75, SD = .444). The enormous preference for sustained and continuous *PD* programs suggests a clear direction for designing and implementing *PD* initiatives. Again, from Table 2, a significant portion of teachers, 75.0% (15), disagreed, and an additional 15.0% (5) strongly disagreed that short-term workshops give them sufficient time to understand and apply new concepts. This indicates a general dissatisfaction among teachers regarding the sufficiency of short-term workshops in meeting their *PD* needs (M = 2.00, SD = .649). The strong disagreement suggests that teachers may prefer alternative formats for *PD* that provide more time for in-depth engagement and practice.

Teachers' Professional Development Experiences at SABS: This section analyzed results concerning the *PD* sessions and experiences teachers have attained at SABS. The results are displayed in Table 3 and discussed in subsequent paragraphs.

Table 3: *Teachers' Professional Development Experiences at SABS*

Statements	N	Responses	Count	%	Mean	SD
The structure of *PD* sessions (e.g., workshops and seminars) is conducive to my learning experiences.	20	Disagree	1	5.0	3.90	.553
		Neutral	1	5.0		
		Agree	17	85.0		
		Strongly Agree	1	5.0		
PD programs offer sufficient hands-on practice and application opportunities in the teaching and learning environment.	20	Disagree	3	15.0	3.35	.813
		Neutral	8	40.0		
		Agree	8	40.0		
		Strongly Agree	1	5.0		
The resources provided during *PD* sessions at SABS are useful and accessible to participants.	20	Neutral	4	20.0	3.85	.489
		Agree	15	75.0		
		Strongly Agree	1	5.0		
My input and feedback are valued in the *PD* programs I attend at SABS.	20	Strongly Disagree	5	25.0	1.90	.852
		Disagree	14	70.0		
		Strongly Agree	1	5.0		
The content of *PD* programs is relevant to current educational trends and my professional growth.	20	Agree	16	80.0	4.20	.410
		Strongly Agree	4	20.0		

Source: Researchers' Field Survey, 2024

From Table 3, a significant majority of teachers, 85.0% (17), agreed that the structure of *PD* sessions is conducive to their learning, with an additional 5.0% (1) expressing strong agreement as well. However, two respondents, 5.0% (1) each, expressed uncertainty and disagreement with the statement. This demonstrates relatively consistent opinions and strong agreement among teachers that the *PD* sessions are structured to effectively support their learning process (M = 3.90, SD = .553). Also, a significant portion of respondents, 40.0% (8), agreed, and 5.0% (1) strongly agreed that *PD* programs offer sufficient opportunities for their hands-on practice and application. This result indicates a general, though not overwhelming, satisfaction with the practical aspects of the *PD* programs. 40.0% (8) of the respondents were neutral on this statement, and 15.0% (3) disagreed. The results reflect a moderately positive perception, indicating that while teachers generally find the *PD* programs to offer hands-on opportunities, there may still be room for improvement (M = 3.35, SD = .813). Again, a significant majority of respondents, 75.0% (15), agreed, and 5.0% (1) strongly agreed that the resources provided during *PD* sessions are helpful and accessible, with 20.0% (4) of the respondents expressing neutrality. The results show a generally positive perception of the resources provided during *PD* sessions and reveal less response variability, indicating that while most teachers are satisfied, a notable portion may have found the resources adequate but not exceptional (M = 3.85, SD = .489). This also affirms the findings from Darling-Hammond and Gardner's studies (2017) on effective *TPD*, which states that providing adequate resources is essential for successful *PD*, as it ensures that teachers can implement new strategies and continue their growth effectively.

Moreover, from the results gathered, a significant majority of respondents, 70.0% (14), disagreed, and 25.0% (5) strongly disagreed that their input and feedback are valued in the *PD* programs they attend at SABS. Only 5.0% (1) of respondents strongly agreed with the statement. This reflects a generally negative perception regarding the value placed on teachers' input and feedback during *PD* programs (*M* = 1.90, *SD* = .852). The high level of disagreement suggests a critical need for the *PD* programs at SABS to better engage teachers by valuing their input and feedback. Last but not least, from Table 3, a substantial majority of teachers 80.0% (16) agreed, while an additional 20.0% (4) also strongly agreed that the content of *PD* programs at SABS is up-to-date and relevant to current educational trends. This positive perception suggests that the *PD* programs are successful (*M* = 4.20, *SD* = .410), and continuous efforts should be ensured to keep the content relevant. In affirmation of this result, Darling-Hammond and Gardner (2017) emphasized that effective *PD* for teachers should be aligned with current educational trends and evidence-based practices to keep teachers up to date with current knowledge and expertise to enhance student learning outcomes.

Teachers' Instructional Practices at SABS

This section analyzed the instructional practices of teachers who have participated in *PD* initiatives at SABS. The results are discussed in Table 4.

Table 4: *Teachers' Instructional Practices at SABS*

Statements	N	Responses	Count	%	Mean	SD
I am more confident in my teaching abilities after receiving *PD* training.	20	Agree	17	85.0	4.15	.366
		Strongly Agree	3	15.0		
PD programs help me in developing my ability to prepare annual, termly, weekly, and daily lesson plans in the classroom.	20	Agree	12	60.0	4.40	.503
		Strongly Agree	8	40.0		
My lesson delivery in the classroom has improved after partaking in *PD* programs.	20	Agree	13	65.0	4.35	.489
		Strongly Agree	7	35.0		
My classroom management and students' discipline have improved through what I learned from *PD* programs.	20	Disagree	9	45.0	2.95	.999
		Neutral	4	20.0		
		Agree	6	30.0		
		Strongly Agree	1	5.0		
I have a positive outlook on teaching after engaging in *PD* programs at SABS.	20	Neutral	2	10.0	4.25	.639
		Agree	11	55.0		
		Strongly Agree	7	35.0		

Source: Researchers' Field Survey, 2024

According to the responses gathered from Table 4, a significant majority of respondents, 85.0% (17), agreed that the *PD* training they receive at SABS has increased their confidence in their teaching abilities, with 15.0% (3) strongly agreeing. This result suggests that the *PD* programs at SABS are well-aligned with teachers' professional growth and self-assurance in their teaching roles (*M* = 4.15, *SD* = .366). The results also indicated that a substantial majority of respondents, 60.0% (12), agreed, and 40.0% (8) strongly agreed that the *PD* programs effectively enhance their ability to prepare various lesson plans. This shows moderate response variability that *PD* initiatives are well-targeted and successfully support teachers' planning skills (*M* = 4.40, *SD* = .503).

Also, Table 4 indicates that a consequential majority of respondents, 65.0% (13) agreed, and 35.0% (7) strongly agreed that their lesson delivery has improved tremendously after participating in *PD* programs. This relatively low variability in the responses indicates that the *PD* initiatives at SABS have effectively enhanced teachers' instructional skills and improved lesson delivery (*M* = 4.35, *SD* = .489). Again, 45.0% (9) of participants disagreed that their classroom management and students' discipline have improved due to *PD* programs. In contrast, 30.0% (6) agreed, and 5.0% (1) strongly agreed, indicating that some teachers perceive a positive impact. 20.0% (4) of the respondents expressed neutrality. Overall, the findings suggested a moderately negative to neutral perception of the effectiveness of *PD* programs in enhancing classroom management and student discipline at SABS, with a relatively high level of variability in responses (*M* = 2.95, *SD* = .999). Looking at the mixed responses, the management of the school may need to design and implement more targeted *PD* sessions that focus specifically on strategies for maintaining discipline and dealing with challenging behaviors.

Last but not least, from Table 4, the majority of the participants, 55.0% (11), agreed, and 35.0% (7) strongly agreed that engaging in *PD* programs at SABS has positively influenced their outlook on teaching. This showed that *PD* programs are generally successful in nurturing a positive attitude toward teaching among the staff (*M* = 4.25, *SD* = .639). Only 10.0% (2) expressed neutrality, indicating their uncertainty. To sustain and build on this positive outlook, SABS should continue offering diverse *PD* opportunities that cater to various teaching needs and interests.

Students' Learning Outcomes at SABS

This section analyzed how teachers perceive their students' learning outcomes (classroom engagement, achievement,

collaboration, motivation, and critical thinking) after participating in PD initiatives (See Table 5).

Table 5: *Students' Learning Outcomes at SABS*

Statements	N	Responses	Count	%	Mean	SD
I have observed increased student engagement in the classroom.	20	Agree	16	80.0	4.20	.410
		Strongly Agree	4	20.0		
The strategies I learned from *PD* programs have improved my students' achievement.	20	Neutral	1	5.0	4.25	.550
		Agree	13	65.0		
		Strongly Agree	6	30.0		
The new teaching methods I acquired from *PD* initiatives have enhanced my students' collaboration.	20	Neutral	1	5.0	4.20	.523
		Agree	14	70.0		
		Strongly Agree	5	25.0		
My students are more motivated to learn because of the instructional changes I made after attending *PD* programs at SABS.	20	Agree	16	80.0	4.20	.410
		Strongly Agree	4	20.0		
I have noticed an improvement in my students' critical thinking skills due to the *PD* I have received at SABS.	20	Agree	16	80.0	4.20	.410
		Strongly Agree	4	20.0		

Source: Researchers' Field Survey, 2024

From Table 5, an overwhelming majority of respondents, 80.0% (16), agreed, and 20.0% (4) strongly agreed that there has been an increase in student engagement following their participation in *PD* programs. This relatively low variability in responses reflects strong like-mindedness among teachers and signifies that the strategies and skills learned in *PD* sessions are being effectively translated into classroom practices (*M* = 4.20, *SD* = .410). Wei, Darling-Hammond, and Adamson (2010) discussed how *PD* focusing on instructional strategies and student-centered learning can increase student engagement, which agrees with these results. Again from Table 5, the majority of respondents, 65.0% (13), agreed, and 30.0% (6) strongly agreed that their students' academic achievement has improved as a result of the strategies and techniques they acquired through *PD* programs. This moderate response variability also indicates that teachers see a direct link between their *PD* and student learning, suggesting that the *PD* initiatives effectively translate into tangible academic benefits for students (*M* = 4.25, *SD* = .550).

Moreover, from the results in Table 5, a significant majority of respondents, 70.0% (14), agreed, and 25.0% (5) strongly agreed that the new teaching methods acquired through *PD* initiatives have enhanced their students' collaboration. This suggests a strong consensus among teachers that the *PD* initiatives effectively enhance teaching practices, benefitting students' collaborative learning (*M* = 4.20, *SD* = .523).

Also, a strong majority of respondents, 80.0% (16), agreed, and an additional 20.0% (4) strongly agreed that their students are enthusiastic to learn due to the instructional changes implemented after attending *PD* programs at SABS. This little variability in the responses showed that the *PD* programs enhance teaching strategies and positively influence student motivation (*M* = 4.20, *SD* = .410). Last but not least, from Table 5, the majority of respondents, 80.0% (16), agreed, and 20.0% (4) also strongly agreed that there has been an improvement in their students' critical thinking skills as a result of the *PD* received at SABS. This strong unanimity among teachers showed that *PD* programs effectively equip teachers with the skills and strategies needed to foster critical thinking among students (*M* = 4.20, *SD* = .410). This focus on developing critical thinking is important for preparing students to analyze, evaluate, and synthesize information effectively.

Research Question Two: "How do teachers view the impact of *PD* on their attitudes, knowledge, and instructional practices in the classroom?" This section of the study focused on assessing the impact of *PD* on teachers' instructional methods at SABS Dayspring Community School by conducting model fit measures and simple linear regression coefficients using Jamovi (version 2.4.14). The study made use of a research hypothesis that involved teachers' *PD* initiatives and their instructional practices at SABS Dayspring Community School. The hypothesis is distributed as follows:

$H0_1$: Teachers' *PD* initiatives at SABS Dayspring Community School have no predictive influence on their instructional practices.

H_1: Teachers' *PD* initiatives at SABS Dayspring Community School significantly predict their instructional practices.

The findings for research question two and hypothesis one are displayed in Tables 6 and 7 and further discussed. It is important to note that *TPD* comprised data collected on teachers' perceptions and experiences regarding *PD* (see Tables 2 and 3).

Table 6: Model Fit Measures for Research Question Two

			Overall Model Test			
Model	**R**	**R^2**	**F**	**df1**	**df2**	**P**
1	0.648	0.420	13.0	1	18	0.002

Source: Researchers' Field Survey, 2024

Table 7: Model Coefficients - Impact of PD on Instructional *Methods*

Predictor	Estimate	SE	T	p
Intercept	9.611	2.9223	3.29	0.004
TPD	0.312	0.0863	3.61	0.002

Source: Researchers' Field Survey, 2024

The results presented in Table 6 reveal a statistically significant positive correlation between Teachers' *PD* and their Instructional Practice at SABS Dayspring Community School [r (18) = .648, p = .002]. These values suggest a moderate positive correlation, meaning they indicate that teachers believe that Instructional Practices tend to improve as *TPD* improves. The coefficient of determination, R^2 = .420, also signifies that *TPD* can explain 42% of the variability in Instructional Practices. This statistical evidence illustrates that this relationship is implausible to have occurred by accident. Due to that, the study rejected the null hypothesis (Ho_1: Teachers' professional development initiatives at SABS Dayspring Community School have no significant predictive influence on their instructional practices) and adopted the alternative hypothesis (H_1: Teachers' *PD* initiatives at SABS Dayspring Community School significantly predict their instructional practices).

From Table 7, the simple linear regression equation is given as, Instructional Practices = 9.611 + 0.312 × (*TPD* Program at SABS). This means that the baseline level of Instructional Practices is 9.611 when *TPD* is zero (no influence from *TPD*). The *p*-values for both the intercept (.004) and the predictor (.002) were below the conventional threshold of .05, revealing that both were statistically significant in impacting Teachers' Instructional Practices. Overall, this model implied that *TPD* positively and significantly influenced Teachers' Instructional Practices at SABS Dayspring Community School.

Research Question Three: "How do teachers understand the relationship between *PD* programs and student learning outcomes?" To answer this question, the researchers again conducted model fit measures and simple linear regression coefficients to investigate the significance or impact of instructors' *PD* programs on their students' learning at SABS Dayspring Community School. The study made use of a research hypothesis that involved teachers' *PD* initiatives and their students' learning at SABS Dayspring Community School. The hypothesis is distributed as follows:

Ho_2: There is no predictive relationship between teachers' professional development initiatives and student learning outcomes at SABS Dayspring Community School.

H_2: A significant predictive relationship exists between teachers' professional development initiatives and student learning outcomes at SABS Dayspring Community School.

The findings for research question three and hypothesis two are displayed in Tables 8 and 9 and discussed. It is important to note that *TPD* comprised data collected on teachers' perceptions and experiences regarding *PD* initiatives (see Tables 2 and 3).

Table 8: *Model Fit Measures for Research Question Three*

			Overall Model Test			
Model	R	R^2	F	df1	df2	p
1	0.481	0.231	5.41	1	18	0.032

Source: Researchers' Field Survey, 2024

Table 9: *Model Coefficients - Impact of PD on Students' Learning*

Predictor	Estimate	SE	t	p
Intercept	14.623	2.7818	5.26	< .001
TPD	0.191	0.0822	2.32	0.032

Source: Researchers' Field Survey, 2024

The results presented in Table 8 (Pearson correlation analysis) reveal a statistically significant positive correlation between Teachers' *PD* and their Students' Learning Outcomes at SABS Dayspring Community School [r (18) = .481, p = .032]. These values suggest a moderate positive correlation, meaning they indicate that teachers believe that Students' Learning Outcomes tend to improve as *TPD* improves. The coefficient of determination, R^2 = .231, also signifies that *TPD* can explain 23.1% of the variability in Students' Learning. Overall, this analysis suggests that teacher professional development initiative enhancements were associated with improved student learning outcomes at SABS Dayspring Community School. Hence, the study rejected the null hypothesis (Ho_2: There is no significant predictive relationship between teachers' professional development initiatives and student learning outcomes at SABS Dayspring Community School) and adopted the alternative hypothesis (H_2: A significant predictive relationship exists between teachers' professional development initiatives and student learning outcomes at SABS Dayspring Community School).

From Table 9, a simple linear regression was conducted to investigate the significance of *TPD* programs on Students' Learning Outcomes at SABS. The regression equation was: Students' Learning Outcomes = 14.623 + 0.191 × (TPD Program at SABS). The intercept was significant [β =14.623, SE = 2.7818, t (18) = 5.26, p < 0.001], indicating that the baseline level of Students' Learning Outcomes was 14.623 when the *TPD* program was not considered. Also, the *p*-value for the intercept was less than .001, and for the predictor, it was .032. Both *p*-values were below the conventional threshold of 0.05, indicating that both the intercept and the predictor were statistically significant.

The findings from the regression analysis were validated and supported by existing studies, which were coherent and aligned with the study's research objectives. Recent research underscores that sustained and intensive TPD programs are more likely to significantly and positively impact teachers' instructional practices and student achievement. For instance, a study by Nyaaba et al. (2023) in Northern Ghana found that continuous professional development initiatives enhanced teacher satisfaction, achievement, and engagement, leading to improved educational outcomes.

Thematic Analysis

Interview Section

This interview guide was employed in a one-on-one session with the study participants. The researchers carefully constructed probing questions in alignment with the study's objectives to obtain themes such as alignment of professional development with classroom needs, changes in instructional practices due to *PD*, and the influence of *PD* on students' learning outcomes. The results are illustrated below.

Interview Question 1: "How have the *PD* initiatives organized at SABS impacted your teaching methods and strategies?" This question was asked to get firsthand perceptions and experiences of how *PD* programs have influenced respondents' teaching methods and strategies.

Table 10: *Responses to Interview Question 1*

Participants	Responses
Headteacher	Professional development has shifted our approach from traditional teacher-centered teaching to active, student-centered strategies like collaborative, problem-based, and inquiry-based learning, increasing participation and engagement.
Teacher 1	Professional development workshops have equipped me with techniques like positive reinforcement, clear expectations, and conflict resolution, enhancing my classroom management and fostering a disruption-free learning environment.
Teacher 2	Professional development initiatives at SABS have encouraged me to engage in reflective practice, enhancing my self-awareness and continuous improvement by critically analyzing my teaching methods and student outcomes.

Source: Researchers' Field Survey, 2024

Interview Question 2: "How have these new teaching methods and strategies from *PD* sessions impacted student learning outcomes?" This was conducted to determine the impact of their training on students' learning at SABS, which aligns with research objective 3 of the study.

Table 11: *Responses to Interview Question 2*

Participants	Responses
Headteacher	Since implementing active learning strategies, student engagement, retention, and understanding have improved, making the material more relevant and interesting.
Teacher 1	Managing classroom behavior helps me build strong relationships and create a supportive, nurturing environment that fosters a sense of belonging, confidence, and emotional well-being while promoting respect, inclusivity, and collaboration, leading to improved social dynamics among students.
Teacher 2	Reflective practice from SABS professional development has enhanced my self-awareness and fostered continuous improvement, enabling me to build stronger relationships with students, understand their unique needs, and provide personalized instruction that boosts engagement.

Source: Researchers' Field Survey, 2024

Interview Question 3: "How will you describe your most memorable experience with the *PD* initiatives held at SABS?" This was to solicit the views of respondents on their general perceptions and experiences of *PD* initiatives at SABS.

Table 12: Responses to Interview Question 7

Participants	Responses
Headteacher	My most memorable experience is my motivation to attend the professional development training. As I mentioned, my motivation includes promotions, career progression, and higher positions.
Teacher 1	The most memorable experience with professional development initiatives is my active participation in the program. I have been actively involved in every bit of it. Also, how I learned to connect with my students will never be forgotten. I will always remember to implement it wherever I go in the future.
Teacher 2	Well, my most memorable experience is that the training I received helped me to positively impact my students' learning by practicing and having activities on what they learn in the classroom.

Source: Researchers' Field Survey, 2024

The transcribed responses from the interview sessions revealed that the *PD* initiatives that teachers have participated in have impacted their teaching methods and strategies in diverse ways, such as engaging in active learning strategies, positive classroom behavior management, reflective practice, and others (Desimone & Garet, 2015). The three interviewees indicated that these teaching methods have had a positive impact on their students' learning in varied ways, which

include student engagement, improved social dynamics, student motivation, and academic improvement (National Math and Science Initiative, 2023).

Participant Observation

The participant observations were grouped into three sections: Section A (*PD* Session at SABS), Section B (Classroom Implementation), and Section C (Informal Teacher Interactions). From the observations, the *PD* session at SABS Dayspring Community School provided a platform for teachers to engage in structured learning aimed at enhancing their instructional strategies. While many teachers participated actively by asking questions and providing feedback, overall enthusiasm varied, with some teachers showing sustained interest only during hands-on practice sessions. This variation in engagement aligns with findings by Renninger and Hidi (2022), who emphasize that teachers' sustained participation in professional development (PD) is influenced by their personal interest development, which includes factors like self-relation and affect. The content of the PD session was partly relevant to the teachers' specific classroom contexts, particularly in the topics teachers received training. However, concerns were raised about the applicability of certain parts of the content, highlighting a mismatch between the training material and the teachers' everyday classroom needs. This observation is supported by a study conducted by Poulou et al. (2023), which found that teachers perceived certain PD content as lacking relevance to their daily teaching practices, thereby affecting the overall effectiveness of the PD programs.

In terms of classroom implementation, the observed teacher at SABS demonstrated a confident application of the strategies learned from the PD training, particularly those that aligned with her existing goals and classroom contexts. For example, science kits were effectively integrated into lesson plans, leading to noticeable improvements in student engagement and learning outcomes. This aligns with findings by Gardner et al. (2019), who reported that PD programs focusing on active learning strategies enhance teachers' instructional practices and boost student engagement. However, the teacher faced difficulties in fully adopting new methods that required advanced technological resources, pointing to a gap between the PD content and the available classroom resources. This challenge is echoed in the work of Haßler et al. (2016), who found that the lack of adequate technological infrastructure in schools can hinder the effective implementation of PD initiatives, especially in resource-constrained settings.

Last but not least in the observation, the informal teacher interactions at SABS played a major role in reinforcing the insights gained during the *PD* session. Teachers routinely collaborated with peers, offering support and sharing strategies to address classroom challenges. These interactions often took place informally, as structured support systems were lacking. Also, teachers regularly reflected on their *PD* experiences, which led to adaptive changes in their instructional practices. Nonetheless, challenges such as limited resources and aligning *PD* content with classroom realities were common concerns. Teachers expressed a desire for future *PD* initiatives to be more contextually relevant and supported by practical applications, as well as to include structured opportunities for peer collaboration.

Conclusions

From the first research objective, it can be concluded that the one-off *PD* workshops offered at SABS may not meet the teachers' expectations or perceived needs for enhancing teaching skills, as teachers preferred more continuous *PD* programs rather than short-term, isolated events. Many teachers at SABS may not be fully convinced of the *PD* content's relevance to their specific teaching needs, as it might be due to a lack of direct alignment between the *PD* materials and the practical challenges they face in the classroom. From the second research objective, it can be concluded that a statistically significant positive relationship exists between teachers' *PD* and their instructional practices at SABS. In general, *PD* initiatives positively and significantly impacted teachers' instructional practices at SABS Dayspring Community School, which demonstrated strong evidence that the teachers had a positive assurance that *PD* initiatives influenced their instructional practices at SABS Dayspring Community School. Also, from the third research objective, it can be concluded that a statistically significant positive relationship lies between teachers' *PD* and their students' learning outcomes at SABS. In general, *PD* initiatives positively and significantly impacted students' learning at SABS Dayspring Community School, which demonstrated strong evidence that the teachers had a positive assurance that *PD* initiatives influenced their academic performance at SABS Dayspring School.

Recommendations

The study recommends that conducting regular needs assessments will help design *PD* programs that address the most pressing issues teachers face. The management of the school should also raise funds to improve classroom infrastructure to support the application of new teaching methods learned during *PD* sessions. This could include integrating technology, such as multimedia and digital learning platforms, which are increasingly relevant in modern education. Additionally, involving teachers in the planning stages of *PD* programs is essential for ensuring that the training is both relevant and practical. Also, the study recommends that the school authorities should consider organizing *PD* sessions during school hours rather than after school or spread them over several days to accommodate different preferences. Again, incentives (financial bonuses) or recognition could significantly increase teacher participation and engagement in *PD* programs. The study supported this approach, which found that incentives greatly motivated teachers' willingness to engage in professional development.

Areas for Further Studies

Future research could explore the long-term effects of Continuous Professional Development compared to one-off *PD* sessions on teachers' instructional practices and student outcomes. This study could investigate how sustained

engagement in *PD* influences the depth of implementation of new strategies and whether it leads to more significant improvements in teaching and learning over time. Additionally, future research could focus on the role of school leadership, particularly the influence of supervisors, in facilitating the effective application of knowledge and skills gained from *PD* programs. This study could explore how different leadership styles, support mechanisms, and resource provisions affect teachers' ability to implement new teaching methods and the subsequent impact on student achievement.

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