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Critical Reflection Sessions: Teacher's Perspectives During Professional Development

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Abstract: This study aimed to explore the critical reflection experiences of teachers who took part in effective and ineffective professional learning events. It examined the influence of D.A. Kolb's reflective observation stage within the experiential learning theory (ELT) framework on teachers' professional development. Using a qualitative interpretive phenomenological method, the research investigated teachers' viewpoints, beliefs, and experiences related to various professional development activities to evaluate their effectiveness. Eleven teachers attended the same educational conference. The investigation involved semi-structured individual interviews and a focus group discussion. The interview questions centered around the concepts of enactive mastery and vicarious experiences. Open-ended discussions allowed participants to explore their experiences of professional learning. To highlight emergent patterns, this study employed a phenomenological technique to analyze data and identified critical observations through an inductive coding method using the NVivo software. The study's findings suggested that the reflective process necessitated time, collaboration, and structure during professional learning sessions. Moreover, having a group of peers was advantageous for critical reflection. They created a learning environment where support was the norm, and dedicated time encouraged self-reflection, which promoted effective growth in teacher development. The researchers found that inquiry-based professional development promoted introspection and facilitated profound learning. The research emphasized that teachers responded positively when professional development facilitators allowed participants time to link their personal experiences to new teaching methods, prompting reflection and collaboration with peers.

Keywords: collaboration, inquiry-based learning, learner-centered, professional development, professional learning community, reflection, Kolb's reflective observation

1. Introduction

Effective professional learning empowers teachers to reflect, enhance their leadership skills, and foster a vision for embracing changes in schools and the education system [1–3]. Research indicates that well-designed training positively impacts teacher practice and student learning outcomes [4–6]. Despite the research, not all professional learning initiatives appear to enhance instructional methods in schools.

To transform professional learning within K-12 education, one must understand the learning cycle and how to guide it [7]. Generally, professional learning sessions for teachers have been inadequate, and the planning of these sessions has not been influenced by teachers' input or in line with curriculum objectives [8, 9]. Researchers have argued for a necessary shift in how professional development sessions are approached, which typically involve passive learning structures [1, 4]. Meaningful transformation can only occur when teachers access high-quality, pertinent teacher training sessions [9]. Ajani [10] states that incorporating the teacher's voice and reflection into planning

professional learning sessions is critical. Ajani [10] elaborates that for professional learning to be effective, teachers must be advisers to professional development designers. Their knowledge and skills can yield relevant and practical sessions for their teaching practices.

Professional learning is a complex aspect of continuous education that involves reflection, learning, and action to further a teacher's knowledge and skills, leading to enhanced practices that positively impact students' learning [8, 11]. According to Mansfield [12], teachers adapt their teaching techniques upon encountering new instructional models. For effective change, teachers must actively reflect on their knowledge, critically evaluate their teaching methods, and determine the necessary classroom elements [8]. When teachers actively develop their professional learning, it benefits educators and students. Professional development keeps teachers up-to-date with the latest developments in education. It enables them to provide engaging lessons relevant to today's students and equips them with new skills and techniques to enhance their effectiveness as educators [8, 11].

Teachers must develop sophisticated instructional methods to support students in learning more complex and analytical skills they need in our ever-evolving world. An experimental approach

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to professional learning allows opportunities for teachers to improve their practice through demonstration, observation, and reflection [13]. Popova et al. [14] assert that schools must develop a shared vision for continuous learning opportunities for faculty. Farrell [15] asserts that reflective practices integrated into professional learning sessions allow teachers to systemically examine what they do, how they do it, and why. Hence, when experience is paired with critical reflection, professional learning is enhanced for teachers. Perry and Booth [16] find that teachers who actively engage in reflective practices related to their classroom teaching experiences are more likely to adapt and modify their instructional methods. Močinić et al. [17] propose that an experiential framework for professional development centered around reflective practices provides valuable support to teachers as they implement new instructional techniques in the classroom. This qualitative interpretive phenomenological study examined teachers' experiences participating in successful and unsuccessful professional learning sessions at an educational conference in South Florida. It also investigated the influence of reflective observation on the learning cycle found in Kolb's [7] experiential learning theory (ELT).

The theoretical framework guiding this study is Kolb's [7] ELT, which is particularly relevant for teachers and adult educators. ELT posits that learning from experience necessitates specific abilities, including the development of reflective skills. The humanistic approach places individuals at the center of their own learning, emphasizing the creation of personal meaning from life experiences and the construction of knowledge through interactions. The goal of ELT is not just to acquire a skill but to engage in critical reflection and continuous improvement through practice. ELT serves as the foundational process for transforming new and meaningful experiences into an extensive framework of skills. The theory underscores the interaction between the self and the external environment and provides methods for structuring and sequencing professional development training sessions, highlighting the need for ongoing support. Effective professional learning empowers teachers to reflect, enhances their leadership skills, and fosters a vision for embracing changes within schools and the education system. Research has shown that well-designed training positively impacts both teacher practice and student learning outcomes [8, 15, 16].

Previous studies have shown that many teachers believe lecture-based professional development is not the most effective approach [4, 6, 18]. Despite this, school administrators continue to implement lecture-based training for educators [4]. Current professional development practices in education may not always adhere to high-quality learning principles that encourage teachers to acquire and apply new knowledge in their classrooms [6]. Effective professional development necessitates thorough preparation, supportive structures, and adequate resources to encourage teamwork and sharing best practices among educators [6] Effective professional development demands opportunities for teachers to receive constructive feedback and reflect on their practices [19]. Integrating these elements may significantly enhance the effectiveness of professional development programs, leading to better teaching practices and improved student outcomes.

This study highlights several significant aspects. It conceptualizes teachers as learners, emphasizing the importance of their continuous professional growth. The study addresses gaps in the literature by identifying effective characteristics of professional development, aiming to improve the design and delivery of such programs in K-12 schools. It underscores the benefits of fostering a professional culture of continuous learning

and teamwork through various methods like lab classrooms, peer observations, professional learning communities (PLCs), and peer coaching. Additionally, the study suggests that understanding teachers' perceptions of effective professional development can help design more engaging and impactful training. It also provides school leaders with strategies to improve professional development and engage stakeholders in the planning and delivery of effective training sessions. Ultimately, the study aims to enhance decision-making at schools and governing agencies, potentially leading to better policies, increased participation in professional development, and more robust training offerings for teachers.

The research question (RQ) is:

RQ: What are the features of effective and ineffective professional development sessions based on teachers' perceptions?

The subsequent portions of this work are organized as follows: Section 2 thoroughly examines the existing body of literature and prior research. Section 3 explains the technique utilized in this investigation. Section 4 focuses on the results. Section 5 lays out an in-depth analysis of the discoveries. The study's primary findings are presented in Section 6. Section 7 discusses the ramifications of the research. Section 8 delineates future research opportunities.

2. Literature Review

Effective teacher professional learning increases teacher efficacy and retention, which is needed more than ever. Although teachers face new demands, it remains essential to incorporate the components of high-quality teacher development programs. They must not be built on traditional methodologies, such as lecture-based sessions, that do not allow teachers to think about what they have learned and develop practical next steps [20]. These conventional approaches to teacher training deny teachers the opportunity to consider their experiences and devise workable action plans. Understanding how to attain achievement in teaching is essential to transform teacher growth and development. Teachers require time and opportunities for ongoing learning. Research highlights that teacher quality significantly impacts student achievement [21]. To transform teacher growth and development, understanding the nature of expertise and how to support its development is imperative. Wei [21] states that teacher quality is the most influential factor influencing student learning and that high-quality professional development may foster teachers' effectiveness; however, practical strategies for effective professional development are not consistently implemented. According to Darling-Hammond et al. [4], effective teacher development programs start with research-aligned standards and supportive school leaders who foster a culture of growth. Additionally, Darling-Hammond and Hyler [20] emphasize the importance of a formalized structure for teachers to share knowledge, allowing innovative ideas to spread across schools and classrooms.

2.1. Effective professional development

School administrators play a vital role in supporting and guiding teachers to improve their teaching practices and meet students' learning needs. According to a study by Kilag and Sasan [22], instructional leadership is vital for effective professional

development, and school administrators are instrumental in creating a culture of continuous learning among teachers. The study underscores the importance of administrators actively providing relevant professional development opportunities aligned with teachers' needs. Collaborative professional development, where teachers share experiences and learn from one another, has demonstrated effectiveness. Schools can better support teachers' professional growth by prioritizing such collaborative development, ultimately improving student outcomes. Emphasizing collaboration and shared learning experiences is essential for helping teachers gain deeper insights into teaching situations, leading to continuous improvement in their expertise and ability to respond to similar situations.

Teachers need to embrace a culture of continuous learning. Kilag and Sasan [22] stress the importance of school leaders taking an active role in providing opportunities for professional development. Goot [23] asserts that school administrators play a pivotal role in fostering a culture of continuous learning among teachers. Kilag and Sasan [22] highlight the importance of administrators providing relevant professional development opportunities to meet teachers' needs. These efforts contribute to enhancing teaching practices and student achievement. School leaders can empower educators in their professional growth by prioritizing instructional leadership practices, modeling effective teaching, and facilitating collaborative learning opportunities. This study demonstrated the value of a collaborative strategy to professional development, which enables educators to exchange ideas and gain knowledge from one another. Schools can better support the professional development of their teachers and raise student results by providing collaborative professional development opportunities linked to reflective practices. It is essential to prioritize shared learning experiences and collaboration to help educators feel included and supported by their community.

Studies have demonstrated that successful professional development should motivate participants to embrace the dual roles of educator and learner. Effective professional development enables educators to grapple with the uncertainties associated with each role to enhance their understanding of teaching methods [24]. When educators embrace change, they actively enhance their teaching methods. Burke [13] underscores the transformative impact of leadership roles in professional development. By moving beyond mere directives, trainers empower teacher participants with collaborative time and support. This dynamic approach fosters innovative curricula and instructional practices that align with students' learning needs. Ajani [10] reinforces the importance of reflective practices, where educators thoughtfully consider their beliefs and knowledge when learning new teaching methodologies.

Optimal professional development sessions should incorporate reflective techniques that enable participants to examine their thinking, evaluate discussions, and create unique viewpoints and approaches [25]. By incorporating reflective collaboration into professional development sessions, participants can engage in critical discussions and address any misconceptions about understanding new instructional practices [18, 26]. Walshe and Driver [27] find that when teachers reflect on their practice, the result is a more nuanced understanding of their teaching. Zulfikar and Mujiburrahman [28] find that teachers regard reflective thinking positively as it promotes an awareness of what they do in their teaching. Similarly, Zulfikar and Mujiburrahman [28] assert that teachers' reflection on classroom issues, instructional techniques, and learning issues helps them adjust their teaching styles. Loughran [29] discovers that reflective practice helps

teachers grow, deepen their understanding, and improve their future teaching experiences. In essence, reflective practice involves thoughtful consideration of observation and action, leading to professional growth and improved teaching quality. Teachers should embrace reflection as an essential part of their professional development to enhance their confidence in responding to various challenges in the classroom.

2.2. Theoretical framework

The ELT provides an appropriate structure for analyzing effective professional development frameworks that enhance teacher instructional approaches and students' learning gains. Experiential learning, as proposed by Kolb [7], is a powerful framework that describes how people learn through experience. It emphasizes that learning involves the acquisition of abstract concepts, which can be flexibly applied in various situations, the process unfolds in a four-stage cycle: concrete experience, reflective observation, abstract conceptualization, and active experimentation. Experiential learning is a continuous cycle of experience, reflection, conceptualization, and experimentation, fostering new knowledge.

Kurt Lewin, Jean Piaget, and John Dewey were among the eminent academics who impacted ELT [7]. Furthermore, as Kolb's [7] work demonstrates, other associated schools of thought have made significant contributions to this specific area of study. Leading authorities claim that experiential learning theory (ELT) is a comprehensive educational philosophy that emphasizes the role that conscious experience plays in advancing learning. It is more than just a method or strategy. According to Kolb and Kolb [30], acquiring knowledge is a process of gathering new information through experiential learning, as argued by Dewey [31] and Piaget [32]. The academics who pioneered this idea suggested that learners actively participate in the process of gaining knowledge. Amolloh et al. [33] propose integrating experiential learning techniques into various educational settings and teacher training initiatives. According to Kolb [7], the ELT offers professional development designers a structured framework for organizing learning activities for participants.

ELT, a humanistic approach, emphasizes individuals' interpretation of life's events and learning. ELT is a cognitive process that involves the construction of information through a dynamic interplay between four distinct learning modes. This learning theory argues the presence of four distinct levels of learning – concrete/abstract and active/reflective. The process, depicted in Figure 1, is that the learning cycle or spiral involves the learner in a recursive process involving all of the essential elements: experiencing, reflecting, thinking, and doing.

According to Kolb [7], the learning process involves individuals transitioning between concrete experience (CE), abstract conceptualization (AC), reflecting observation (RO), and active experimentation (AE). In his 1984 theory, Kolb proposed that the learning cycle might commence at any of the four stages and that the learning process should be viewed as a continuous spiral. Kolb's [7] approach recognized the following learning structures in the framework:

1) Concrete experience pertains to the act of observing teaching.
2) Reflective observation is actively engaging in intentional introspection about the situation.
3) Abstract conceptualization is the process of analyzing experiences to create a model that can explain an observed phenomenon.

Figure 1
Learning style grid by Kolb
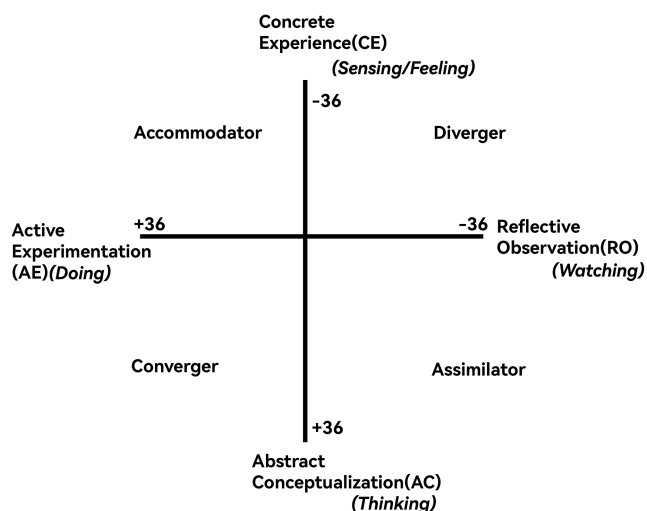
4) Active experimentation refers to the process in which individuals seek to validate a model or develop strategies by using the knowledge they have gained in a new and different situation.

According to the ELT, acquiring knowledge from experience requires specific abilities, including the cultivation of reflective skills [7]. Focusing on how the self and the outside world connect is what the ELT is built on. The ELT offers ways to organize and sequence training sessions for professional development and stresses the need for ongoing support. Furthermore, as represented in Figure 1, the ELT emphasizes the importance of transforming concrete experiences into abstract concepts through observation and reflection [34]. This process not only enhances learning but also fosters personal and professional growth. By actively engaging in the learning cycle, individuals can develop a deeper understanding of new instructional methodologies and techniques, adapt to new challenges, and apply knowledge more effectively in the classroom and practice. Figure 1 demonstrates the experiential learning model's four phases.

2.3. Reflective observation during professional development

In the reflective observation stage, thinking gives actual encounters more meaning, and action transforms knowledge into action [35]. Real learning happens when intentional processes are built into the learning cycle, and critical reflection stays in motion [11]. Encouraging teachers to reflect during professional development sessions supports participants in understanding concepts more effectively. As a result, teachers are better prepared to use fresh approaches to teaching when they engage in collaborative inquiry activities linked to reflection tasks. Lysberg [11] claims critical thought is advantageous because it ensures that teachers question what they know and actively seek new information to make teaching and learning effective.

Researchers have shown that when teachers are equipped with rich learning opportunities connected to deep reflection, they are better equipped to facilitate student learning [11, 36]. According to previous research, teacher professional development is associated with reflective observation [37]. This approach enhances classroom instruction through collaboration and active participation, leading to changes in classroom practices and improved student performance [37]. Hence, critical reflection engages teachers in examining their beliefs and deepening their understanding of educational issues.

In summary, the literature underscores the importance of reflective observation in enhancing teacher professional development and classroom practices. By engaging in critical reflection, teachers can deepen their understanding of educational challenges and improve their instructional practices. This study builds on these insights by employing a qualitative approach to explore teachers' experiences with reflective practices during professional development sessions. The following methodology section details the interpretive/descriptive phenomenology design used to capture participants' subjective viewpoints and the data collection methods that facilitated a comprehensive understanding of their reflective processes.

3. Research Methodology

This study employs a qualitative approach with an interpretive/ descriptive phenomenology design to comprehensively understand participants' subjective viewpoints, lived encounters, and perspectives [38]. Data collection was conducted using semi-structured interviews and a focus discussion group. Participants were individually interviewed using a flexible guide that allowed for in-depth exploration of their experiences and reflections. The interview guide was structured using Kolb's [7] ELT reflective observation construct. The interview questions measured the participants' experiences with reflecting during professional development sessions and its impact on strengthening the learning process. The implementation of interviews in this study facilitated the revelation of emotions, cognitions, and beliefs allowing the researchers to understand the interviewee's viewpoints and comprehend their lived experiences. Focus discussion groups were created after the semi-structured one-on-one interviews to gather additional insights and stimulate interaction among the participants, providing a broader understanding of the shared experiences. The focus group was essential to this study because it allowed participants to analyze their opinions compared to those of others, which helps to gather high-quality data [39]. The goal was to create a candid conversation addressing in-depth information regarding effective and noneffective professional development experiences. When formulating the focus group question guide, we looked for gaps and concepts from the one-on-one interviews that needed additional clarification. Open-ended questions allowed for probing questions and allowed each participant to share their thoughts. Like the semi-structured interview questions, focus discussion group questions stemmed from Kolb's [7] ELT reflective observation construct.

Measures of trustworthiness, reliability, and validity in research were ensured throughout the process. Trustworthiness was established through credibility, transferability, dependability, and confirmability [38]. Credibility was achieved by ensuring the accuracy of the findings through prolonged engagement. Transferability was addressed by providing thick descriptions that allow readers to determine the applicability of the findings to other contexts. Dependability was ensured by maintaining a detailed audit trail of the research process, including data collection and analysis procedures. Confirmability was achieved by conducting member checks, where participants reviewed and validated the findings, and by engaging in reflective journaling to minimize researcher bias.

Reliability in this study refers to the consistency of the data collection methods and findings. This was ensured by using a semi-structured interview guide and conducting all interviews and the focus group discussion in a consistent manner. The use of multiple data sources (interviews and focus discussion groups) also contributed to the reliability of the findings. Validity in this study was addressed by ensuring that the research accurately captured the participants' experiences and perspectives. This was achieved through careful design of the interview and focus discussion group questions, alignment with Kolb's [7] ELT reflective observation construct, and iterative data analysis to identify and confirm emerging themes. The use of member checks further enhanced the validity of the findings by ensuring that the interpretations accurately reflected the participants' viewpoints.

A thorough grasp of the significance of reflection during teacher professional development sessions was made possible by examining the perspectives of educators who have participated in successful and unsuccessful professional development sessions. We learned about the participants' emotional states, experiences, and opinions through the interpretive phenomenology approach [40].

3.1. Research design

The benefits of reflection for educators before, during, and after professional development sessions were explained and interpreted using an IPA methodology. The study aimed to look into practices that lead to changes in instruction and obstacles to professional development. By studying educators' perspectives, opinions, and experiences, we uncovered insights for school leaders looking to provide meaningful professional development sessions for teachers promoting change in practice. The study's research design enabled a more reflective understanding of teachers' desires for professional development session design.

3.2. Participants

The study's sample size was determined by Creswell and Poth's [38] suggestion of a sample size ranging from five to twenty-five individuals for qualitative research studies. In this study, purposeful sampling and criterion sampling methods were utilized. Participants had to have experienced the phenomenon and were willing to participate in one-on-one interviews and an optional focus group. For participants to be information-rich for this study, we determined that they must have attended the same educational conference in South Florida and participated in at least three professional development sessions over the past five years. The criterion sampling method allowed us to choose eleven participants from a population of 75 teachers who attended the same educational conference.

All eleven participants were current educators at private schools. The participants had a wide range of teaching and professional development experiences. We have included the demographics for each participant in Table 1, obtained from a participant criteria questionnaire. Displayed in Table 2 are the specific types of professional development that each participant has attended over the past five years.

3.3. Instruments

This study included two main techniques for data collection: (1) focus groups and (2) a semi-structured individual interview. In this study, data analysis was not a one-time occurrence but an ongoing and iterative process (Patton) [37]. We used significant analysis

encoded in NVivo software from participant interviews to identify themes and draw conclusions.

3.4. Data analysis

Ethical principles were utilized throughout data collection and analysis during the study. The data analysis followed the five-step method described by Creswell and Poth [38], referred to as the data analysis spiral. The continuous comparison analysis involved examining participant statements within the dataset using NVivo software to identify codes that directly reflect accounts of effective and ineffective professional development experiences. The data was revisited and examined multiple times, with each statement being analyzed and color-coded into words and phrases, some of which emerged as main themes connected to teachers' perceptions of reflective observation during professional development sessions.

4. Results

In this section, we share the results from our thematic analysis. By arranging the interview transcripts using NVivo and assessing the data, we identified key themes and noted where further information was required. We then formulated questions for focus groups based on these identified gaps in the data. The results yielded four recurring themes, as depicted in Figure 2: The reflective process requires time, structure, and guidance. A community of colleagues is a valuable resource for growing practice through reflection. Creating a conducive learning environment and allocating organized time enables adequate reflection to drive change in instructional practices. Additionally, inquiry-based professional development facilitates reflection and promotes deep learning. The findings section addresses these four themes.

4.1. Theme 1: Guided reflection

When questioned about the value of reflection in professional development, teachers emphasized the significance of sessions that provide sufficient time, structure, and guidance for reflective thought. The participants emphasize the importance of having dedicated time during professional development sessions to reflect on instructional practices with colleagues. Teachers describe having a clear structure during training sessions with guidance from a facilitator as allowing them to absorb and apply new knowledge more effectively. When participants described practical professional development sessions, they included like-minded colleagues sharing "what works in the classroom" and "what does not work". The participants felt that collaborating with peers allowed them to discuss and think about implementing new methods in the classroom.

Teacher 7 emphasized that using the breakout model during professional development encourages discussion and sharing among participants. Teacher 9 desired collaborative, hands-on activities with peers exploring similar approaches, followed by reflective discussions on their effectiveness. Teacher 10 highlighted the importance of reflection, as it helps internalize knowledge and facilitates practical implementation. Teacher 4 shared, "I feel like some of my best professional development is just talking to other teachers and other administrators and seeing what they are doing and how they are doing it".

Each of the 11 participants universally acknowledged the importance of teachers engaging in discussions and self-reflection during teacher training sessions. Teacher 2 stated, "Reflection was

Table 1
Demographics of participants

Participant	Age	Gender	Total number of years teaching	Race	Location	Number of professional development sessions over prior 5 years	Highest level of education
Teacher 1	56	Female	17	White/Non-Hispanic	Virginia	5	Bachelors
Teacher 2	43	Female	14	White/Non-Hispanic	North Carolina	30	PhD
Teacher 3	55	Female	23	White/Non-Hispanic	Delaware	20	EdD
Teacher 4	47	Female	23	White/Non-Hispanic	Florida	14	Masters
Teacher 5	61	Male	28	White/Non-Hispanic	California	50	Masters
Teacher 6	48	Female	15	White/Non-Hispanic	Florida	50	Masters
Teacher 7	51	Male	20	White/Non-Hispanic	Florida	5	Masters
Teacher 8	40	Female	11	White/Non-Hispanic	Florida	12	Bachelors
Teacher 9	63	Female	37	White/Non-Hispanic	Florida	10	Masters
Teacher 10	55	Female	34	White/Hispanic	Florida	15	Masters
Teacher 11	49	Female	28	White/Non-Hispanic	Virginia	10	Masters

Table 2
Teachers' types of professional development attended

Participant	Lecture-based	Professional learning community	Hands-on workshop	Lab classroom	Instructional coach	Online
Teacher 1	X		X			X
Teacher 2	X		X			X
Teacher 3	X	X	X			X
Teacher 4	X	X	X	X	X	X
Teacher 5	X	X	X			X
Teacher 6	X	X	X		X	X
Teacher 7	X		X			X
Teacher 8	X		X		X	X
Teacher 9		X	X	X	X	X
Teacher 10	X	X	X	X		
Teacher 11	X	X	X			X

Figure 2
Reflective observation themes from teachers during PD
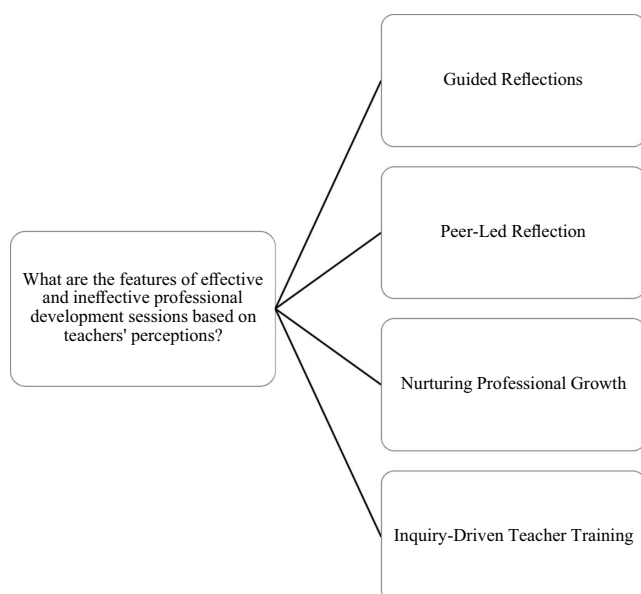
helpful because I could hear things that resonated with my colleagues. Moreover, it was surprisingly effective". Teacher 6 said, "Reflection plays a huge role in professional development. When you can do professional development with a colleague, the reflection and learning are more practical, more relevant, and you discuss actual steps to use in real life". Researchers have also corroborated participants' shared experiences, highlighting the importance of reflective thinking ingrained in professional learning sessions [18, 26, 40].

4.2. Theme 2: Peer-led reflection

Among the data trends, participants valued peer-led reflection as a means to encourage thoughtful contemplation during professional development sessions. The participants emphasized that although reflection can be uncomfortable in a group setting, it leads to the growth of ideas. Some participants emphasized that reflection should be utilized more during professional development. Every participant recognized the significance of self-reflection and gaining information from fellow educators.

The 11 participants experienced the advantages of active reflection to enhance their professional development. Teacher 6

stated, "Colleagues help and perpetuate the professional development to be better". Learning from a peer colleague is more effective than learning from a stranger. Teacher 11 highlighted the importance of acquiring knowledge from fellow educators, as it cultivates a sense of camaraderie and motivates individuals to venture outside their comfort zone.

In the same way, Teacher 3 stated, "I feel that reflection during professional development is undervalued and underused". Participants agreed that getting together with a group of teachers who share similar views helps them think about things and better understand new information. Researchers have shared that shared responsibility is created when co-workers trust and work together [41, 42].

4.3. Theme 3: Nurturing professional growth

Many participants stressed the significance of establishing a compassionate and inclusive environment during professional development sessions. They emphasized that effective professional growth occurs when teachers collaborate, take calculated risks, and actively share their ideas. Other teachers pointed out that professional development facilitators often need a deeper understanding of their audience. Other participants described a powerful training session where facilitators provided support, enabling attendees to achieve things they had only dreamed of accomplishing. The positive experience left this teacher feeling deeply moved.

Many participants concurred that teachers should collaborate with someone they have confidence in during professional development sessions. Teacher 2 said, "I had a presenter who had us share. It made a difference because he asked us tough questions about our classrooms and practices". Teacher 9 stated, "Looking at slides during professional development does not work for me. I need to be active and talk to other teachers to learn". Prior studies have also shown that exchanging teaching methods with colleagues and emphasizing continuous discussion as a component of professional growth helps acquire new knowledge [43, 44].

4.4. Theme 4: Inquiry-driven teacher training

It was clear from the focus discussion groups and interviews that inquiry-driven teacher preparation was crucial for creating efficient professional development for educators. All eleven participants felt that the inquiry-based learning methodology should be imitated so that teacher professional development workshops could have an impact. Participants pointed out that teachers ought to be questioned about their targeted outcomes and the strategy they wish to use to put the new information they have learned into practice during professional development sessions. Participants also highlighted that practical professional development sessions align with participants' needs and wants. Participants feel that teachers need inspiration, motivation, and practical guidance. The participants' descriptions showed that inquiry-based learning and addressing teachers' needs are critical in robust professional development sessions.

All participants agreed that inquiry-driven professional development prompts teachers to reflect on their teaching practices. Teacher 3 emphasized the effectiveness of professional learning communities, where like-minded educators share new ideas, experiment, reflect, and deepen their understanding. Similarly, Teacher 7 highlighted the value of using the breakout

model in professional development sessions for collaborative discussions among teachers. Teacher 5 shared, "When we are engaged in questioning how our students learn best during professional development, this type of reflection makes us think about our practice". Teacher 11 emphasized revamping professional development to align with our teaching methods. Tanatawy [40] further underscores the importance of teacher training programs to encourage sharing experiences, exchanging ideas, and collaborative learning among participants.

5. Discussion

This study identified that teachers needed more choices for meaningful professional development. The study's results significantly influence educational policy by emphasizing the evaluation of professional development sessions from the teachers' viewpoints rather than the policymakers' outlook. Additionally, the research underscores the importance of enhancing the structure of these sessions to promote collaborative learning. The findings suggest that professional development programs that include dedicated time for contemplation can successfully cultivate habits that improve practice. Reflection played a crucial role in gaining new insights during professional development workshops. Providing teachers with dedicated time to communicate and engage in meaningful interactions with colleagues enables them to reflect on their work and develop long-lasting changes in teaching and learning. The study emphasizes establishing a standardized structure for professional development sessions, which should include designated time for introspection. The frameworks underline the significance of prioritizing reflection in teacher training sessions. Researchers have emphasized the importance of incorporating reflective thinking into professional development for developing teachers' instructional practices [18, 26, 40].

The study's findings also highlighted the importance of regularly conducting needs assessments to identify areas where participants require the most support and to pursue further training. Research has shown that these assessments have a positive impact on improving teaching methods. Furthermore, the study highlighted the importance of implementing a standardized structure for professional development. Creating a collaborative culture is essential to teachers' professional development and the improvement of teaching practice. This culture is fostered throughout professional development through individual and group reflections. Professional development should allocate time for encouraging reflection on teachers' needs, a practice that is supported by the literature [40].

Teachers define effective professional development as ongoing and personalized sessions that actively include them in addressing their students' needs through reflective practices. The study's participants found that training sessions that focused on creating a supportive learning community, acknowledging teacher input and expertise, and involving teachers in preparing and delivering content were associated with improved teacher effectiveness. Teachers stated that when these structures, which included opportunities for contemplation, were incorporated into their professional development sessions, resulting in improved learning and instructional improvement. Researchers have demonstrated that by actively engaging in learning communities, teachers can enhance their continuous learning, and schools can cultivate an environment of profound reflection [25, 43].

6. Findings

This study found that a positive school culture influences teachers' attitudes and perspectives toward professional growth. Teachers who received guidance from their colleagues and administrators before, during, and after professional development sessions made significant changes to their teaching methods. Furthermore, the study reinforces that providing options for continual and ongoing professional development is vital for teachers to enhance their grasp of newly acquired techniques. Every participant emphasized the importance of implementing follow-up systems after professional development to embrace new teaching methodologies effectively.

This study indicates that teachers have positive experiences when implementing new teaching approaches, mainly when professional development facilitators help learners connect their personal experiences to reflection techniques. Participants in professional development sessions highlighted reflective observations, conducted through small group discussions, as a necessary component for instructors to enhance their work by reflecting with their colleagues. The results are consistent with Kolb's [7] Experiential Learning Theory, which suggests that facilitating learning via reflection enhances and reinforces the learning process. Engaging in collaborative and reflective conversations boosts self-assurance when implementing newly acquired knowledge. Collaboratively generating knowledge among teachers enhances group cohesion and the overall learning experience. Teachers, acting as topic experts, assist their colleagues in organizing and linking their reflections to the curriculum. The study's focus on collaborative and shared experiences in professional development contributes to the existing research on successful structures for teacher training. It provides concrete examples of learning structures that foster an effective learning experience.

7. Implications of the Study

This study presents empirical support for the integration of reflection tasks into the restructuring of professional development sessions. The participants in the study conveyed that the caliber of professional development has emerged as a significant concern in schools. However, conversations to improve professional development sessions have yet to be driven by the demands or needs of teachers [8, 9]. Teachers' aspirations for their professional growth often diverge from what they receive. This study provides evidence of restructuring professional development programs to incorporate reflective exercises. Teachers' individual needs are sometimes not adequately addressed in professional development sessions prescribed by schools. Teachers require the assistance of colleagues who possess knowledge of their teaching objectives to organize, create, and execute new instructional methodologies. The results also confirm that teachers will acquire new approaches when professional development sessions include a collaborative element. Therefore, enhancing progress relies on establishing a platform where educators may share ideas and collaborate on their teaching methods. Teachers need dedicated time to participate in organized discussions about teaching methods, educational materials, evaluation data, and lesson planning to improve student performance. Teachers develop new expertise and abilities by collaborating as a learning community to improve their teaching methods. The results of this study can guide school administrators and professional development trainers in developing impactful professional learning sessions for teachers.

Several critical components come into play when establishing an effective system to support teacher development. These components encompass teachers' voices, support structures, and a culture of growth [45, 46]. When these elements are integrated, they contribute to meaningful growth and improvement in teaching practices.

One essential aspect of professional development is collaboration. Integrating a collaborative element into professional development enhances teachers' motivation to acquire new approaches. To facilitate this, it is vital to provide a forum for teachers to exchange ideas and work together to refine their teaching practices. Having scheduled time for discussion is imperative, as this enables teachers to gain a comprehensive understanding of concepts, curriculum resources, assessment data, and instructional design. Through establishing a learning community, teachers can collaborate to improve their teaching methods developing new professional knowledge and abilities [19].

Practical professional development sessions benefit from collaboration among colleagues. Facilitators should recognize each learner's expectations and foster a supportive learning environment. Empowering teachers to acquire new instructional skills and strategies is vital for professional growth. In the reflective observation of Kolb's [7] ELT, learners consciously reflect on their experience. In this stage, participants discuss the events that occurred during the concrete experience phase. They reflect on their problems, observations, behaviors, and places where they can modify. Facilitating learning by encouraging introspection enhances and solidifies each stage of the learning cycle. When teachers engage in reflective practices, they gain a deeper understanding of new concepts and teaching approaches.

8. Conclusions

The absence of intrinsic reflection during professional development sessions for teachers was the primary impediment that hindered participants from effectively integrating acquired tactics from professional development sessions. It is also advised that professional development programs for teachers include time and mechanisms for reflection before, during, and after the sessions. Furthermore, it was determined that successful professional development should provide teachers with pedagogical strategies and the ability to implement them in the classroom confidently. Most existing professional development sessions for teachers need to be more relevant. This study found that incorporating opportunities for reflection during professional development workshops benefited teachers by improving their understanding. The study revealed that reflection allows teachers to understand new practices deeply. When teachers engage in reflection, they learn a new strategy and question its validity to understand its why. This process helps them shift their beliefs and embrace their newly learned knowledge.

School leaders should prioritize regular, structured professional development programs. To enhance the effectiveness of these programs, the following specific recommendations are proposed. Establish professional learning communities (PLCs) where teachers can regularly meet to share experiences, discuss challenges, and collaboratively develop solutions. This fosters a culture of continuous improvement and mutual support.

1) Encourage teachers to observe each other's classrooms and provide constructive feedback. This practice not only promotes the sharing of successful strategies but also builds a supportive network where teachers feel comfortable taking risks and trying new methods.

2) Schedule dedicated time for teachers to reflect on their practices in a structured manner.

3) Use guided reflection tools and protocols to help teachers analyze their experiences, identify areas for improvement, and set actionable goals.

4) Design professional development workshops that address specific needs identified through teacher feedback and performance data. Tailored training ensures that the content is relevant and immediately applicable, increasing the likelihood of successful implementation.

These recommendations provide school leaders with strategies for creating a supportive environment for professional learning one that promotes teacher self-efficacy, encourages risk-taking, and facilitates continuous professional growth.

9. Future Research

This study enhances academic research by offering qualitative phenomenological data that investigates teachers' perspectives on effective and ineffective professional development, particularly reflective observation, using Kolb's [7] framework for experiential learning. Further investigation should focus on doing an in-depth analysis of the experiences of K-12 teachers to gain a comprehensive understanding of how this phenomenon impacts the learning process. Conducting a quantitative study would enhance comprehensive, effective professional development for teachers. Another consideration for future research is to conduct a study by comparing the effectiveness of various reflective methods or models, such as reflection journals, peer feedback, or group discussions in professional development. Understanding these structures for reflection can inform a framework for professional development programs. Future research must explore whether tailored professional development initiatives, which provide practical learning experiences (such as peer coaching), significantly impact teachers' skill development. We recommend leveraging this data as a foundation for enhancing teacher training sessions.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Author Contribution Statement

Lisa S. Ockerman: Conceptualization, Methodology, Validation, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Project administration. **Sikha Bagui:** Conceptualization, Validation, Writing – review & editing, Supervision.

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