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Teacher Professional Development for Educational Reforms: A Multiple-Case Study of Sabah's Secondary Schools

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Abstract

This thesis investigates the implementation of Malaysian government systemic education reforms in four Sabah secondary schools with special reference to teacher professional development (TPD) provided for teachers and school leaders. Evidence suggests that, as elsewhere, Malaysian and Sabah schools struggle to implement system reforms, and a key contributor is the inadequacies of TPD and leadership professional development (PD). Consequently, the aims of this study are twofold: first, to understand the perceptions and experiences of teachers and school leaders regarding their PD as a means of developing their knowledge, skills and values in enabling implementation of education system reform in Sabah secondary schools; second, to identify key aspects and considerations that are essential in planning and designing an effective TPD model for Sabah teachers and school leadership teams (SLTs) that would build capacity and enable successful implementation of educational reforms. Framed within a theoretical framework of complex adaptive system theory (CAST), the main research question asks: **How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?** Grounded in the interpretivist paradigm, this multiple-case study employed reflexive thematic analysis, modified analytic induction, and step-by-step analysis to understand TPD dynamics for educational reforms and facilitate the development of the Sabah Emergent TPD (SET) model. Data were gathered through semi-structured and focus group interviews, observations, and document analysis with 51 participants from four schools, including principals, senior assistants, middle leaders, and teachers. The study reveals inadequacies in current TPD initiatives in Sabah schools leading to dissatisfaction among participants and hindering effective reform implementation. It highlights the critical role of SLTs and the importance of fostering contextually relevant, collaborative learning experiences, emphasising the need for a more systemic approach to TPD in Sabah. A major outcome of this study is the development of the Sabah Emergence TPD (SET) model for educational reforms, featuring collaborative and adaptive TPD and the significance of external support and stakeholder synergy to enhance schools' capacities to implement and sustain reform initiatives within diverse local cultures and contexts

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Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

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Signature

List of Abbreviations

A list of frequently used abbreviations to facilitate understanding:

TPD	Teacher professional development
CAST	Complex adaptive system theory
SET	Sabah emergent teacher professional development model
OECD	The Organization for Economic Cooperation and Development
PISA	Program for International Student Assessment
TIMSS	Trends in International Mathematics and Science Study
MOE	Ministry of Education
MEB	Malaysia Education Blueprint
CPD	Continuous professional development
C&M	Coaching and mentoring
PLCs	Professional learning communities
SLTs	School leadership teams
SSLTs	Senior school leadership teams
MLTs	Middle leadership teams
SA1	Senior assistant 1
PD	Professional development
TS25	Transformation school 2025 programme
AL	Adult learning theory
SL	Situated learning theory
STL	Social theory of learning
EL	Experiential learning
CoP	Community of practice
AR	Action research
HOD	Head of Department
HOP	Head of Panel
TSP	Trust School Programme
DTP	District Transformation Programme
SISC+	School Improvement Specialist Coach Plus
SiPartner+	School Improvement Partner Plus
SOP	Standard Operating Procedures
IAB	Institut Aminuddin Baki

Chapter 1: Introduction

1.1 Introduction

This thesis investigates the implementation of education reforms in four Sabah secondary schools with special reference to teacher professional development (TPD) processes and the accompanying leadership preparation and training for school leadership teams (SLTs). It seeks to understand how school leaders and teachers receive, make sense of, and respond to major system reform policies through their engagement with TPD. It also seeks to clarify the factors and conditions that may support or impede successful TPD as a means of implementing education system reform in diverse school contexts. This study utilises a qualitative multiple-case study approach within an interpretivist paradigm. It aims to capture the rich data and unique perspectives and experiences of Sabah teachers and school leaders as they engage in TPD for educational reforms.

The chapter begins by providing a contextual overview of TPD in Malaysia and Sabah. It includes a brief discussion on policy development, implementation, and challenges of TPD at national and state levels. The chapter then presents the research problem, aims and questions. The significance of this research is then explained to justify the need for studying TPD in Sabah by highlighting the contributions that this study makes to address some of the gaps identified in the TPD literature. This is followed by a brief outline of the methodology and researcher's positioning, concluding with an overview of the thesis structure.

1.2 The contextual overview and challenges of teacher professional development in Malaysia and Sabah

This study centres on four national secondary schools situated in Sabah, a state located in the eastern region of Malaysia (Figure 1.1). Malaysia administers a centralised, top-down education system, managed at four distinct levels: federal, state and federal territories, districts, and schools. To understand the TPD processes in Sabah, it is necessary to discuss the policy and planning processes as they contribute to the challenges of implementing educational reform related to TPD and the accompanying leadership preparation and training for the whole nation.

Figure 1.1: Map of the two parts of Malaysia *(Nations Online Project, n.d.)*

1.2.1 Malaysian educational policy reform proposals

Education is widely acknowledged as a critical component in fostering a nation's human capital development and as a major driver of both economic competitiveness and nation-building (Rönnström, 2015; Grant, 2017). To remain competitive, many countries, including Malaysia, base their policy planning on analysing how other countries are faring in international benchmark comparisons- such as OECD's Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS). In addition, McKinsey and company's report on the 20 most improved school systems around the world (Mourshed, Chijioke and Barber, 2010) drives many countries, including Malaysia, to adopt a whole-system reform with the aim of raising education quality.

Studies show that effective TPD is key to the process of transforming the education system and is likely to eventually lead to improved student achievement via improvement in teaching quality (Borko, 2004; Timperley, 2011; Darling-Hammond, Hyler and Gardner, 2017). Consequently, policymakers in many countries place significant emphasis on TPD in their reform programmes (Schleicher, 2016; Dimmock *et al.*, 2021).

After a thorough evaluation of the Malaysian education system, the Ministry of Education (MOE) concluded in October 2011 that the country's educational reform needed to be holistic, taking state, district, and school-level variations in performance and capability into consideration (Kementerian Pendidikan Malaysia (MOE), 2013). As a result of the review, the Malaysia Education Blueprint (MEB) 2013–2025 was launched, with the goal of transforming the country's education system and placing Malaysia in the top one-third of countries in PISA and TIMSS rankings by 2025. This appears to be an overly ambitious goal, especially considering that Malaysia is currently ranked 51st out of 86 participating countries in Science, Mathematics, and English based on the recent 2022 results. The current Prime Minister highlighted Malaysia's declining education system, indicating an urgent need for attention (Povera and Sallehuddin, 2024).

The MEB is an impressive document that aims to transform the education system over a 13-year period (2013–2025) in five essential areas: unity, efficiency, quality, access, and equity. To achieve the goals of the MEB, the blueprint outlines 11 strategic and operational shifts (see Appendix A), of which Shift 4 is centred on enhancing the processes for continuous professional development (CPD) and teacher quality and Shift 5 is concerned with ensuring high-performing school leaders in every school. Through system transformation, the MEB hopes to produce students who are globally competitive with six key attributes: leadership skills, bilingual proficiency, ethics and spirituality, national identity, knowledge, thinking skills (MOE, 2013).

1.2.2 Teacher professional development in Malaysia

In line with the MEB, Malaysia's MOE has since outlined various initiatives - among them being the implementation of the Revised Standard Based Curriculum for both primary (KSSR) and secondary schools (KSSM), beginning in 2017. The revised curriculum emphasises student-centred teaching and learning by focusing more on inculcating higher order thinking skills (HOTs) and strengthening Science, Technology, Engineering and Mathematics (STEM) education through inquiry-based and project-based approaches. It is hoped to deliver a balanced set of knowledge and skills such as creative thinking, innovation, problem-solving and leadership among the students and prepare them to face challenges of the changing world (MOE, 2013). The MOE is devoted

to helping teachers become more competent in light of the new curriculum and evaluation methods by offering a variety of TPD courses.

Three approaches are currently dominating TPD implementation in Malaysia. First, in spreading policy initiatives, cascade models are favoured due to lower costs and greater time effectiveness in transferring knowledge rapidly on a large scale (Hiew and Murray, 2018). These training models are conducted either in-person or virtually via recorded videos, online platforms using a learning management system (LMS), online meetings, and/or a blended approach. The Teacher Education Division (TED), Curriculum and Development Centre (CDC), English Language Teaching Centre (ELTC) and Teacher Training Institutes are the main providers of TPD under the central MOE.

Second, the district education offices (DEO) are given the responsibility to provide support through the coaching and mentoring (C&M) programme by School Improvement Specialist Coach Plus (SISC+) officers to improve instructional quality (MOE, 2013; Shafee et al., 2019). SISC+ officers focus on providing school-based coaching to teachers, their level of support being differentiated based on the school's academic performance. In addition, SISC+ officers act as facilitators and sometimes leaders for professional learning communities (PLCs) as well as district and school-based TPD, providing external expertise and supporting teachers to develop competencies needed to deliver the revised curriculum and creative pedagogies for improved student academic performance.

A third initiative combines the cascade model and C&M to build schools'capacities to manage and implement school-based TPD and overall school improvement efforts such as the 'Transformational Schools 2025' (TS25) and the Trust School Programme (TSP). TSP is a comprehensive school transformation initiative utilising the public-private partnership model. TS25 and TSP both aim to build the capacity of senior school leadership teams (SSLTs) and middle leadership teams (MLTs) to plan and transform schools focusing on creating a conducive learning environment for students and teachers. Both programmes provide structured TPD to enhance key competencies in schools. While the TSP coaches are stationed at specific schools on a daily basis to oversee instruction and provide training, the TS25 programme utilises DEO

officers including SISC+ and SIPartners+ to train school leaders and teachers and periodically assess their progress. Both programmes encourage the cultivation of C&M and PLC processes as the foundation of school-based TPD.

A policy on in-service training mandates that all MOE officers—including school leaders and teachers—complete at least seven days of PD each year. The MOE developed a training management system called "SPLKPM," which is used by all of its employees to track their PD engagement. It is the responsibility of the school leaders to make provisions for TPD and ensure each staff member meets the seven-day PD requirement. Additionally, the MOE promotes school-based learning programmes as the primary way of engaging in continuous TPD (Kementerian Pendidikan Malaysia, 2020), which, according to international research (Timperley, Ell and Le Fevre, 2017; Hauge, 2018; Postholm and Boylan, 2018) is the most effective form of TPD. This move complements the 'Operational Guideline for In-Service Training' endorsed in 2016 prescribing the focus on school-based TPD (Bahagian Pendidikan Guru, 2016) as the way forward.

Besides mandated TPD programmes by the central MOE, school leaders and teachers are also encouraged to take charge of their own development through various kinds of learning initiatives offered by providers external to the MOE. For example, they can opt to engage in Action Research (AR) projects, conferences, symposiums, webinars and e-learning activities. Qualified teachers are also encouraged to apply for sponsorships and study leave to upgrade their education attainment. Their engagement in these voluntary TPD activities is also recorded in the 'SPLKPM' system.

1.2.3 Leadership for teacher professional development

The MOE also places a strong emphasis on strengthening SLTs' capacities to improve school and teacher performance and raise student outcomes in all aspects. The ministry's aim is to ensure that every school has a 'high-quality' principal and supporting leadership team to provide instructional leadership and to drive overall school performance, regardless of geographical location or performance level (MOE, 2013, pp. 5–13). The MEB emphasises the need for instructional leadership to drive school improvement, which is in line with international research on high-performing schools (Kaparou and Bush, 2015;

Kusanagi, 2022). Furthermore, the MOE recognises the need for high-quality SLTs by using a distributed model to increase capacity-building support and operational flexibility. Although not a "model" in itself, distributed leadership represents a set of practices and a concept that lie implicitly within the successful application of instructional and transformational approaches of leadership (Hallinger, 2011; Torrance, 2013; Leithwood, Harris and Hopkins, 2020). Such conceptions from the MOE assume that there is a relationship between vertical and lateral leadership processes in schools whereby leadership is seen as a single individual in action rather than an interaction of multiple actors.

Given the centrality of school leadership for Malaysia's educational reform, the MEB mandates all new first-time principals to complete the National Professional Qualification for Educational Leadership (NPQEL), focusing on developing their leadership skills. In determining leadership performance, the PD provider for school leaders, the National School Leadership Centre also known locally as *Institut Aminuddin Baki* (IAB) Malaysia, is given the responsibility to design and deliver leadership training modules for the school leaders, including NPQEL. The IAB aims to provide individualised PD support for every principal, while underperforming principals will benefit from intensive, one-on-one coaching from SIPartner+ officers. The IAB also developed the three-year TS25 whole school transformation programme, which aims to guide school leaders in transforming the way their schools operate in order to enhance instruction that will lead to better student outcomes and school quality.

1.2.4 Challenges of teacher professional development in Sabah

Despite the comprehensiveness of the MEB document that outlines the reform initiatives to improve the learning outcomes for future Malaysians, evidence suggests that teachers and school leaders are failing to implement the policies and practices contained in MEB 2013 – 2025 (Bajunid, 2019; Bush *et al.*, 2019). The delivery appears to falter at lower levels due to (i) a mismatch or disconnect between policy formulation and schools as implementers; (ii) challenges associated with the 'top-down, cascade model' of TPD; and (iii) a lack of ownership since the initiatives were imposed on schools (Bush *et al.*, 2019). These three causes are explained in greater detail in chapter 2. As TPD

serves as the cornerstone of educational reform initiatives, the challenges are examined through the TPD lens in the context of educational reform.

TPD for Sabah teachers and the capacity building of school leaders are greatly influenced by Sabah's geographical location, infrastructure, and diverse culture. Sabah is the second largest state in Malaysia with a population of approximately 3.83 million (Department of Statistics Malaysia, 2021) with 222 secondary schools and 1074 primary schools (Kementerian Pendidikan Malaysia, 2022). There are 24 administrative districts in Sabah, categorised into five divisions; Tawau, Sandakan, Kudat, West Coast and Interior (Figure 1.2).
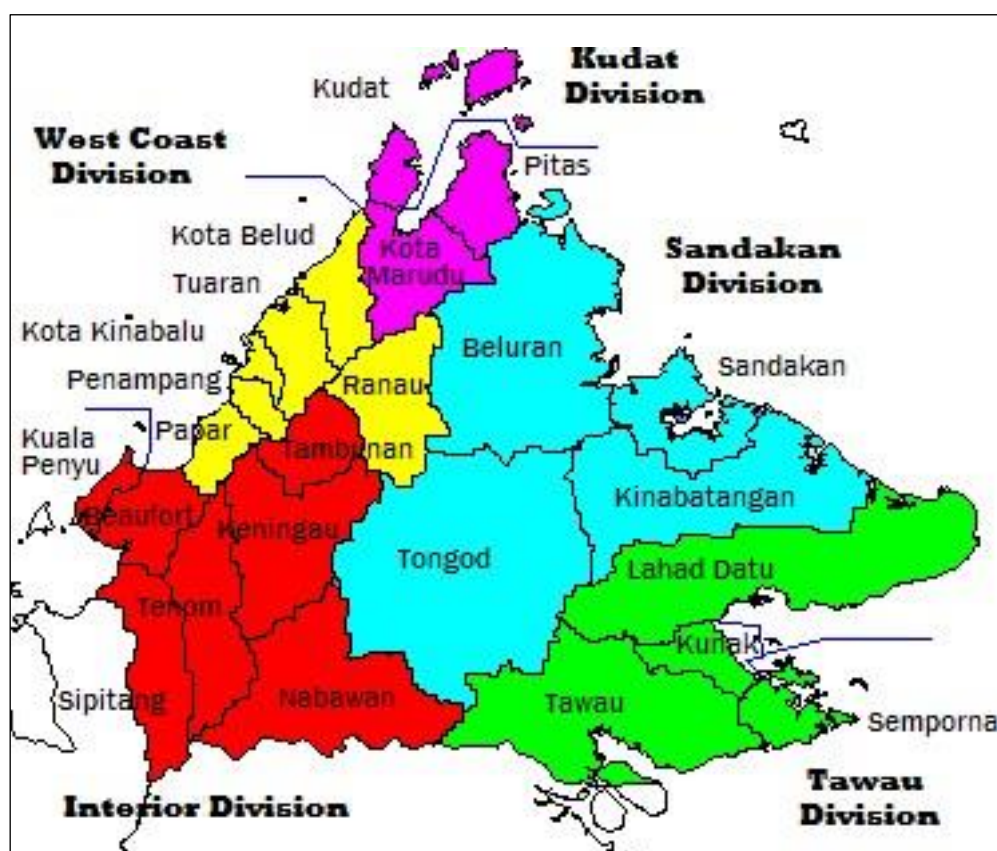
Figure 1.2: Sabah divisions and districts *(allaboutsabah.wordpress.com, no date)*

1.2.4.1 Significance of geographical location

The vast differences in geographical location and demographics in Sabah contribute to the differing needs of TPD across schools. They also pose challenges for the Sabah State Education Department (SED) and DEOs to provide constant support and training for schools that are difficult to reach. Some schools in the districts of Tongod (Sandakan Division) and Nabawan (Interior Division), for instance, are only reachable by boat or four-wheel drive. Kota

Kinabalu (KK), being the capital and major city in Sabah, also has diverse contexts. Some of the challenges of the KK DEO include island schools with the only mode of transport being speed boat, and remote primary schools that can only be reached with a four-wheel drive plus a few hours on foot. It can be difficult to make frequent visits to these schools to offer support and guidance, let alone to facilitate PLCs and school-based TPD. Schools in remote locations encounter difficulties with internet connectivity, which in turn poses challenges for implementing online TPD.

Furthermore, because of its affordability and capacity to reach a large number of teachers quickly, the cascade model is the recommended delivery strategy. However, due to geographical distance, Sabah trainers who attended training at the national level must conduct another cascade cycle for their own state as the distance between KK and Tawau involves eight hours of driving. Most cascade training within Sabah involves state level workshops, after which the workshops will be held down the East Coast (Tawau and Sandakan Divisions), and then the West Coast, including Interior and Kudat Divisions. Another cascade layer will be at district level because some schools are located quite a distance from one another. By the time the information reaches the teachers, it may have already been filtered down to a 'trickle.'

Additionally, teachers in remote schools may not have the same learning needs as those in the urban areas, and some initiatives may not be well suited to them. Sabah has many low enrolment primary schools with less than 150 students. For example, in Papar district (West Coast Division), there are 24 low enrolment schools (Papar District Education Office, 2020). Some of these schools may have a classroom with just one student. Teaching strategies such as cooperative learning and collaborative learning - which the MOE prescribes in their TPD programme for all schools and that require students to work in groups - may not be feasible due to the number of students in such classrooms. In contrast, there are several schools in the same district (Papar) with too many students in a class, where numbers can reach up to 55 - 60 per classroom. With just one teacher for such a big class, and students from various backgrounds and levels of competence, different challenges are posed for the learning strategies mentioned earlier.

1.2.4.2 Challenges of infrastructure and resources

Most Sabah schools continue to struggle with internet access and limited resources, both of which represent significant barriers to teacher and student learning. Many schools in remote areas face problems with electricity and water supply. In addition, Sabah, and its neighbour Sarawak, also have the most unsafe and neglected school buildings in Malaysia, many of which need repair (Rajaendram, 2019). Additionally, due to insufficient classrooms, many Sabah schools are operating on a double session schooling system or sharing of classrooms. Given the lack of infrastructure, engagement in TPD and the subsequent implementation of learning prove to be challenging.

However, other parts of Sabah, such as big cities such as KK and Tawau, have schools that perform better and are blessed with more resources than the rest of the state, necessitating different TPD approaches. Many of the schools in these two cities are well established and most of the teachers have been teaching in the same schools for a longer period and are well-grounded. On the contrary, many teachers in rural schools do not stay for extended periods of time because most newly educated teachers are hesitant to work in these settings. Even if they agree to work in these rural schools, they usually do not stay long due to the area's poor economic conditions (Bari, 2017). As a result, there is a teacher shortage in rural schools (Bakar, 2021). In 2023, the issue of teacher shortage became critical, more so in Sabah, because many teachers opted for early retirement due to workload burden (Malaysia Gazette, 2022) and the dwindling numbers of potential new applicants (Khalid, 2023; Zainal, Vethasalam and Muthiah, 2023). All this, despite the MEB's Shift 4—to make teaching the profession of choice.

Furthermore, many students in urban schools come from socially advantageous backgrounds. Consequently, they tend to perform better than their peers in most rural schools. These factors will have a major impact on schools' TPD needs and capacities.

1.2.4.3 Demography and socio-economic background

A key goal of the MEB is to narrow the achievement gap between genders, and rural and urban schools, as well as between socio-economic backgrounds of

students. Teachers working in various locations in Sabah will have to deal with the diverse needs of their students from various backgrounds, each with their own languages and cultures. Sabah is reported as having high cases of school dropouts especially in Tawau, Semporna and Sandakan districts (East Coast of Sabah). Dropouts are mostly caused by family hardships and a lack of enthusiasm for learning. Their motives are also related to the distance they must go to school and the cost of daily transportation (Sabah State Education Department, 2020). Adapting local activities to interest disengaged students depending on their specific situation would seem to be most effective in this setting.

1.3 Research problem

Despite having numerous opportunities to engage in TPD activities organised externally and internally to the schools since the MEB 2013, attempts to raise the performance levels (both academic outcomes and transversal skills) of the students in most of the schools in Sabah, are still failing to have the desired effects. The performance gap is evident in the public national examinations for primary and secondary levels (Welsh, no date). Sabah has consistently ranked 16th (last) among all states and territories in terms of academic achievement (Sabah State Education Department, 2020).

Achieving greater equity as outlined in the MEB seems unrealistic in the context of Sabah due to challenging socio-economic conditions such as remote schools with water problems, poor road access and internet service, a lack of resources, and, for some, a lack of trained teachers. There is a clear disparity between policy aspirations and classroom implementation in Sabah (Bush et al., 2019). The lack of evidence or efficiency of quality of TPD offered in Sabah seems to exacerbate the problems. It would therefore seem invaluable in helping identify key issues in teacher learning and instructional changes. Although Sabah SED produces a yearly statistic of the target days of PD requirement for all educators in the state, the report does not describe the type of learning activities and the TPD content required. The same can be said for PLC reports which have mostly detailed the number of meetings and tools used, rather than skills benefits gained. There is insufficient empirical evaluative data to suggest whether the TPD programmes, either externally or internally implemented, are impactful in transforming practice and improving student learning.

For projects that are cascaded from the MOE, schools are required to provide implementation reports to the DEOs and SEDs. These reports are then collated and fed back to the main TPD provider by the SED officer. The main TPD provider analyses the data holistically before sending it back to the states.

There have been reports on major courses by the MOE especially on the training programmes cascaded by the ELTC and British Council, but they were not specific to Sabah alone. State officials tend to focus on data cascaded to them, rather than analysing it from the bottom-up. Considering the diversity of the 24 districts in Sabah, having the same solutions is unlikely to be the answer to solving the issues of poor student outcomes. There is need for a rigorous assessment of what would be a realistic, feasible and desirable TPD strategy given the present challenges in Sabah schools (Senin, 2005; Hiew and Murray, 2018).

Furthermore, despite a strong emphasis on school leadership performance in realising the MEB aspirations, there seems to be a significant and substantial void in the knowledge base of leadership for TPD, particularly in Sabah. Existing literature mostly highlights the following: the relationship and influence of the organisation and principals on teachers' job satisfaction (Chong, Mansur and Ho, 2015), teachers' efficacy (Talip and Anak Tiop, 2020), leadership competencies in leading an island school (Silam, Pang and Lajium, 2021), and the conditions that support or hinder school-based TPD (Madon, 2019). However, less is known about how school leaders can shape school culture and make teacher learning conditions favourable in Sabah schools. An even bigger gap is the role of school-level leadership and its capacity building to engineer productive learning cultures for TPD in Sabah schools.

Consequently, there is a strong need to further explore these grey areas, leadership and TPD, especially at school level, and its impact on teachers' and students' learning (Robinson and Gray, 2019). Such an impact study would inform policy and guide future TPD directions (King, 2014), as well as helping to better understand the conditions that are necessary for successful TPD.

Given the foregoing contextual factors and the unique contexts of Sabah, it is imperative that a study of TPD in Sabah is given due attention to support future

efforts to raise teacher quality and enhance student outcomes. This present study aims to fill some of the gaps highlighted in Sabah's TPD implementation, particularly in understanding the relationship between external and internal TPD in an accountability environment. The study also aims to investigate accompanying leadership training for successful TPD implementation in Sabah schools.

1.4 Research aims and questions

The aims of the study are:

1. to understand the perceptions and experiences of teachers and school leaders regarding their PD as a means of developing their knowledge, skills, and values in enabling implementation of education system reform in Sabah secondary schools, and

2. to identify key aspects and considerations that are essential in planning and designing an effective TPD model for Sabah teachers and school leadership teams that would build capacity and enable successful implementation of educational reforms.

Deriving from the two aims of the study, the overarching research question (RQ) for this study is:

How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?

Four SRQs are developed to define the scope and direction of the research:

SRQs:

1.   How do Sabah teachers and school leaders interpret their TPD experiences in order to implement the (Malaysian government's) reform agenda in their schools?

2.   What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement TPD initiatives in schools?

3.   Taking into account the views of teachers and school leaders, what would constitute an effective TPD programme that might enable the successful implementation of the Malaysian government's reform agenda in Sabah secondary schools?

4.   What policy and other contextual conditions would be necessary to support such an effective TPD system?

These questions were formulated with the aim of better understanding the perceptions, motivations, and sense of ownership of Sabah teachers and school leadership teams in restructuring their future PD experiences.

1.5 Significance and justification for the study

This study began with the essential problem of why major system-wide educational reform in Malaysia (as elsewhere) often seems to founder. Such major reform usually involves changes to curriculum, pedagogy, assessment and leadership. It is apparent that all of these reforms – to be successfully implemented – depend heavily on teachers and leaders adopting or adapting new practices. Instrumental in teachers (and leaders) adopting new practices is their willingness and ability to do so, that is, their capacity. The place of PD is central to building teacher and leader capacity to implement reform. Furthermore, when the literature on teacher and leader PD is reviewed, there seem to be many ideas, but few empirical studies of 'what works'. These reasons provide the justification for this study and its focus on teacher and leader PD as a lever for implementing system reforms such as new curricula, pedagogies, assessments and others.

There is a consensus among academics, policymakers, and educators that promoting teachers' PD is a crucial first step towards realising the aspirational objectives of educational reforms. Research shows that effective TPD will eventually improve instruction and raise student achievement as part of the process of transforming the educational system. This study focused on

investigating TPD in the context of Malaysia and its potential to enhance teachers' capacity as lifelong learners and agents of educational reform, acknowledging the importance of teachers as the main agents of student learning and reform in schools. Although curriculum development and pedagogy are essential elements of good teaching, TPD offers teachers the opportunities to acquire, enhance, and apply the pedagogies needed to effectively teach the curriculum (Darling-Hammond et al., 2017).

Therefore, engaging in TPD is crucial because it guides how teachers plan their lessons, make instructional decisions, and ultimately affects the quality of their teaching. Through TPD, teachers can stay current on research, policies, and best practices in the field, update their knowledge, and modify their lesson plans to fit the needs of their students. However, despite acknowledging TPD as a key factor in educational reform, many aspects are still underexplored. Therefore, focusing on TPD is essential because the existing literature is limited and requires more empirical data. Conducting more research will help establish effective TPD practices in the context of educational reforms, such as those in Malaysia, leading to better teaching quality and improved student outcomes, thereby achieving policy goals in diverse school contexts.

Currently, little is known about teachers' and school leadership teams' perceptions, needs, and aspirations regarding their TPD experiences and future perspectives, encompassing both external and internal activities, in Sabah schools and Malaysian schools in general. Indeed, when compared to the Anglo-American corpus of knowledge, there is comparatively a dearth of research on contextualised TPD in Asia (Bautista and Oretga-Ruiz, 2015; Hallinger and Kulophas, 2020), especially in the context of educational reform (McLure and Aldridge, 2023). This study offers an important opportunity to increase knowledge and deeper understanding of the opportunities provided to teachers and school leadership teams in Sabah to express TPD experiences that they feel would build capacity, as well as a voice in meeting the challenges of making their learning more contextually meaningful.

Moreover, the findings from this study aim to identify key aspects and considerations that are essential in planning and designing a functional TPD

model for Sabah teachers and school leadership teams that would build capacity and enable successful implementation of systemic educational reforms. To date, most equivalent research on teachers' and leaders' PD has been conducted in Anglo-American or western settings (Avalos, 2011; McChesney and Aldridge, 2019; McLure and Aldridge, 2023). Conducting a contextually-based TPD study grounded in the societal culture of Sabah schools and communities, while also taking into account the features and conditions of effective TPD implementation from international literature, is critical. Additionally, the findings from this study will contribute to the body of literature on TPD in Asian settings and the Global South. At the same time, the study gives Sabah teachers and school leadership teams a 'voice' in restructuring future TPD experiences that help raise their professionalism and internal accountability.

1.6 Definition of terms

This study is built on the key concepts of TPD conducted externally and internally to the schools. To facilitate a shared understanding of the terms used in this study, the following key terms are clarified and defined as follows:

Teacher professional development

The subject and focus of TPD has generated a great deal of discussion and debate in the education sector and elsewhere over the past decade. It is a complex concept that has been defined in numerous ways by academics and practitioners, but it lacks a single widely accepted definition due to its complexity and nuances. Various terms are used to refer to TPD: for example, 'teacher development' (Evans, 2010), 'teacher learning' (Bakkenes et al., 2010), 'teacher professional development' (Postholm, 2012; Darling-Hammond et al.,2017), 'continuing professional development' (Cordingley et al., 2005; Kennedy, 2014) and 'teacher professional learning' (Cirkony et al., 2021). This variety of terminologies and definitions appear in the literature. For example, scholars have distinguished between 'PD' and 'professional learning' (PL). Accordingly, PD is mostly associated with formal courses and seminars that seem to emphasise one-way knowledge transmission, often characterised by sporadic, one-off events (Guskey, 2002; Bautista and Ortega-Ruiz, 2015). In contrast, PL encompasses formal and informal learning opportunities, including both external

and job-embedded activities, that help teachers acquire new knowledge and improve their practices to benefit student learning (Kennedy, 2016; Boylan et al., 2018). In recent years, the concept has evolved further to include all-encompassing terms like Professional Learning and Development (PLD) or Professional Development and Learning (PDL) to distinguish between training and development (Boylan et al., 2018). These terms reflect the integrated nature of professional growth, capturing both the acquisition of new knowledge and the continuous improvement of teaching practices. Despite the different terminologies and definitions, scholars in the field of TPD seem to agree with Avalos (2011) that the focus is on teachers' learning – how and what they learn in terms of improved knowledge, skills, and values and how they apply these learnings in practice to support students' learning.

In sum, the relevant literature presents two main perspectives of TPD. First, it is a structured programme encompassing all formal and informal learning activities that may lead to improvements in teachers' practice, professionalism (Evans, 2010), and student outcomes (Bubb and Earley, 2007; Darling-Hammond et al., 2017). The second perspective - complementing the first - describes TPD as a complex system with various dynamics at work in social behaviour, interacting and combining in various ways depending on the people and context (Opfer and Pedder, 2011; Shirrell et al., 2019; McChesney and Aldridge, 2019). The present study adopts a functionalist approach, recognising TPD as a crucial tool for teacher and leader capacity building to enable them to implement educational reforms (Kennedy, 2014). It adopts the two perspectives and defines TPD as a complex and continuous process of acquiring knowledge and skills through both external and internal (to school) learning experiences, implementing that learning, reflecting on progress, and adapting approaches to suit specific contexts. This iterative process aims to continually improve teaching practices, effectively bridging theory and practice. Given this comprehensive working definition, the distinction between PD and PL becomes less relevant to this study, allowing for a holistic understanding of TPD essential for understanding teachers and leaders as potential agents of implementing meaningful educational reforms.

This definition serves as a guide for the data analysis and discussion in subsequent chapters of this study.

External teacher professional development

In this study, the term external TPD refers to activities or programmes that are planned and delivered by external bodies. Participants are selected based on criteria specified by the external TPD providers. As explained in Section 1.2.2 of this chapter, several TPD providers were given the responsibility to plan and deliver training programmes to build the capacity of school leaders and teachers to meet the demands of the MEB 2013 - 2025. These programmes range from short courses to webinars, workshops, and seminars, among others. Also included in the category of external TPD are initiatives planned and carried out by the SED and DEO, such as Performance Dialogue sessions and PLCs. These TPD programmes are offered either on a mandatory or voluntary basis, and attendance may be recorded.

Internal teacher professional development

This study views internal TPD as learning activities that are planned, organised, and conducted by the schools' own leaders and teachers. It can either be formal or informal. Formal internal TPD includes, but is not limited to, in-house training and school-based performance dialogues. Informal internal TPD, on the other hand, refers to activities that occur in an unplanned way, such as impromptu conversations over coffee or lunch breaks to discuss issues pertaining to teaching strategies or students' learning problems.

Hybrid teacher professional development

In addition to the two TPD strategies previously described, this study draws attention to the existence of hybrid TPD exemplified by the TS25 programme and the roles of district coaches. This strategy combines both external and internal TPD.

It is important to note that the TS25 programme, which is one of the main criteria in this study's sampling strategy (see Chapter 3), has both elements of

external and internal TPD. Training consists of capacity building for school leaders at an external or internal venue and/or online platform. Participants are allocated a specific timeframe to apply the knowledge and skills acquired from external TPD. They are required to report their implementation outcomes either through documentation or in subsequent training sessions.

The C&M offered by the district coaches, specifically the SISC+ and SIPartner+, is another hybrid example of a TPD strategy. These coaches are given specific roles to support schools in enacting reform initiatives and improving student outcomes. They would first decide which schools and subjects to support, and they would then customise their objectives and strategies based on input from the school leaders and teachers they collaborate with. Their responsibilities include visiting the schools to conduct observations and C&M sessions, as well as planning and implementing district-based training in addition to facilitating school-based TPD activities.

1.7 Outline of methodology

This study adopts a multiple-case study approach, using qualitative methods of data collection and analysis. A combination of criterion and maximum variant sampling strategies were used to identify the four national secondary schools and the interview participants for this study. The schools need to be at least in their third year of implementing a ministry-mandated whole school transformation programme: TS25. Additionally, the four schools were chosen based on their varying levels of performance, which were based on the TS25 programme's goals. The researcher purposefully chose the interview participants using criterion sampling, that is, based on the positions held in the school.

In combination, maximum variation sampling strategy was also used to get as diverse a range of perceptions and experiences as possible in each school. Semi-structured and focus group interviews, observations and document analysis were conducted with 51 participants across the four schools - comprising principals, senior assistants, middle leaders, and teachers.

Data analysis was conducted in two stages: within-case and cross-case analysis. The researcher followed Braun and Clarke's guidelines for reflexive thematic

analysis (2021) to make sense of the data, identify themes, and maintain reflexivity throughout the entire analytical process. In addition, the researcher also used Bogdan and Biklen's (2007) Modified Analytic Induction to help suggest important considerations in designing a framework for a context-sensitive TPD model rooted in the data from all case schools. Methodology is discussed in greater detail in Chapter 3.

1.8 Researcher's positioning

The evidence from existing international literature that TPD can have variable effects and efficacy leads to the phenomenon studied in this research. The motivation to focus on TPD initially stemmed from my local setting in Sabah, Malaysia, in which I work as the SISC+ for Papar DEO.

Prior to my appointment as SISC+, I taught in several secondary schools for 12 years and gained experience of providing various TPD programmes, both external and internal to schools. My position as a former teacher in schools has given me intimate understanding of the issues and challenges of externally and internally organised TPD and I began to reflect on their 'practicality', 'relevance' and 'ease of implementation' in the classroom. When the new MEB was launched, I was appointed as SISC+, in line with Shift 4 of the blueprint. The new position gave me hope to facilitate and support teachers with their TPD experience.

However, I soon found that the aspirations from senior education policymakers and officials tended not to translate well in reality. Given the complex nature of my job scope (both to provide customised support and disseminate mandated initiatives), and the constant changes of my role expectations over the course of the last eight years, my curiosity has been raised regarding the MEB's vision in supporting TPD. The mismatch between policy intention and school context in Sabah seems to me to result in the lack of teachers' engagement in TPD activities.

In addition, the absence of continuous support for any transformation to sustain new practice – stemming from the noted reluctance and resistance of most teachers, either to be coached, or to trial new techniques - has driven my

passion to pursue this study. I believe that gaining new insights into this area of research will create more future opportunities to strengthen the knowledge base of TPD in Sabah and Malaysia.

Having worked in the Malaysian Education system for many years, I am aware of my position as an 'Insider researcher'. I am familiar with the policy context, the schools and teachers that I will be researching – this is my researcher's situatedness (Costley, Elliot and Gibbs, 2010). Suffice to say that I will endeavour to combat any undue bias wherever possible in my interpretation of data and will make clear any personal views on controversial issues in this study. Further discussion on the pros and cons of being an 'Insider Researcher' is found in Chapter 3.

1.9 Structure of the thesis

This thesis is organised into ten chapters. **Chapter 1** provides the contextual overview of the research - identifying the problem, outlining the aims, research questions and methodology involved.

Chapter 2 draws on relevant literature to analyse and establish generic principles of good TPD practices, with the goal of providing insights into the informed practice of TPD and leadership capacity building. Additionally, the review highlights the body of research on centralised educational reforms as well as pertinent theories.

Chapter 3 describes and justifies the methodology and methods of data collection and analysis. In particular, the chapter examines the assumptions underpinning the interpretivist paradigm, justifies the use of qualitative methods and the choice of a multiple-case study design approach. It also explains the ethical, trustworthiness and limitations relevant to this research.

Chapter 4 provides the background information for the four case studies, while **Chapters 5, 6, 7, and 8** detail the findings from each of the four case studies.

Chapter 9 presents a discussion of the cross-case analysis and addresses whether the Sabah emergent TPD model is compatible with the model of TPD informed

practice espoused and generated from a review of evidence-based, international literature.

Chapter 10 explicitly addresses the RQs posed in **Chapter 1**. The chapter summarises the main findings, contribution to knowledge, and discusses the research implications for all stakeholders involved in TPD and leadership capacity building, and draws recommendations for theory, practice, and future research.

Chapter 2: Literature review

2.1 Introduction

This chapter presents a focused review of selected literature to support the main RQ and the SRQs as presented in Chapter 1. As there is scant literature on TPD as a key driver for educational reforms in Sabah and Malaysia, equivalent international literature is reviewed to gain insights into the informed practices of TPD and school leadership development in the context of a major educational system reform.

The chapter is divided into three key sections. First, it examines the policy context of Malaysian education system reform. Second, it explores insights from other system-wide educational reform movements and theoretical considerations. Third, the chapter elucidates the literature pertaining to leadership, aimed at enhancing school-based TPD. Each section is approached with a focus on TPD and its influence on teacher learning. The review concludes by presenting a literature-based conceptual framework grounded in international evidence of TPD-informed practice as a catalyst for educational reform.

The literature review also highlights the importance and significance of the connectivity between TPD and school leadership development in educational reform implementation in schools. It argues that an effective TPD system intertwines both teachers' and leaders' roles, needs and capacities, and takes into account the specific conditions and cultures of each system or state, while recognising some generic principles of structure and process that make for good practice.

2.2 Policy context of the Malaysian education system reform

This section provides a broad overview of the Malaysian education policy context, concentrating on the country's primary contemporary policy reform document, the Malaysian Education Blueprint (MEB) 2013-2025. The blueprint was launched in 2013 with the aim of improving the efficiency, equity, unity, and quality of the nation's educational system. Currently, Malaysia's education reform agenda is based on two main documents: the MEB for preschool-to-

secondary education and the other for higher education. However, this study focuses on the former.

Despite being subjected to extensive consultations with international agencies and local stakeholders, the MEB has been criticised in terms of its aspirations and operational shifts. The 13-year transformation plan, which was supposed to be carried out in three waves (Appendix B), implies sequential and linear development, which has turned out not to be the case (Bajunid, 2019). Evidence suggests that policy reform processes are often concurrent, conflicting, gradual and long term. The 2022 PISA results indicate that Malaysia's sub-standard performance (much lower than the OECD average) (Scheichler, 2023) necessitates a review of the MEB 2013. This situation is a testament to the cyclical and on-going nature of the reform process.

Flaws in the implementation of Malaysia's education reform across all levels of the management hierarchy are highlighted by Bush et al. (2019). After a decade of the MEB's implementation, Malaysia not only fell short of its aspiration to reach a top third position in the TIMSS and PISA ranking (Mullis *et al.*, 2020; Scheichler, 2023), but also faces pressing issues related to equity and the overall quality of education, demanding urgent attention (Tee, 2022). In response to these challenges, the current education minister has announced a curriculum revision set to take effect in 2027 (Rajaendram, 2023).

The present study was conducted during the transition of the MEB into Wave 3, which emphasises achieving greater operational flexibility and excellence. This shift poses challenges, given that many goals from Waves 1 and 2, designed to strengthen the nation's foundations and revamp the educational system, remain unfulfilled. Malaysia's PISA 2022 results provide a nuanced view of education, highlighting that reforming education is a complex and multifaceted process influenced by various interconnected factors. Variations in students' academic achievements, coupled with the impact of external and societal factors, support the argument that educational reform is not a linear process and requires a comprehensive and adaptive approach. A re-evaluation of the goalposts and operational shifts for the MEB and its aspirations is necessary.

As explained in Chapter 1, the MEB outlines 11 operational shifts (Appendix A) to achieve the blueprint's goals. Relevant to this study, three key operational shifts have been identified: Shift 4 - Transform teaching into the profession of choice; Shift 5 - Ensure high-performing school leaders in every school; and Shift 6 – Empower JPNs (State Education Departments), PPDs (District Education Offices), and schools to customise solutions based on need.

2.2.1 Transform teaching into the profession of choice

Shift 4 aims to make teaching a desirable career, with one of the goals being to increase the quality and customisation of continuous professional development (CPD) for teachers. The MOE advocates that schools implement school-based TPD grounded on their needs and focused on providing tailored support to each teacher with the hope of establishing a 'peer-led culture of excellence' (MOE, 2013, p. A-38). All Malaysian national schools are encouraged to implement required school-based TPD activities, such as establishing PLCs for teachers to engage in collaborative learning, conducting AR, and engaging in C&M either with external or internal coaches and mentors.

While schools were supposed to customise their TPD, as stated in the MEB document, it remains unclear how this is progressing and needs further exploration. Yearly reports by the Education Performance and Delivery Unit (PADU) highlighted the achievement in terms of outcomes, such as enrolment percentage and reports of successful delivery of programmes. Despite the MOE's commitment to sharing best practices for learning, poor educational policies and practices are not usually reported due to political, bureaucratic, and cultural factors, preventing opportunities to learn from experience (Bajunid, 2019, p. 163). Studies on school-based TPD in Malaysia centred around the issues and challenges of implementing the proposed initiatives, particularly PLCs (Ansawi and Pang, 2017), while exploration of key processes, factors and conditions that could provide a strong foundation for school-based TPD remain elusive. The establishment of a robust TPD culture in Malaysian schools remains unclear, particularly regarding its connection with policy reforms. This ambiguity persists because existing studies on TPD initiatives have largely been conducted without direct links to the broader reform agenda. Further research is required to delve into the processes, factors, and conditions that foster a positive TPD experience,

empowering teachers to reshape their teaching methods and improve student performance in alignment with the aspiration outlined in the MEB. This is especially crucial in Sabah, as it lags behind other states in Malaysia.

2.2.2 Ensure high-performing school leaders in every school (Shift 5)

Shift 4 connects with Shift 5, which is to ensure high-performing school leaders are placed in every school. The Ministry's aim is to ensure that every school has a high-quality principal and supporting leadership team to provide instructional leadership to drive overall school performance, regardless of geographical location or performance level (MOE, 2013, pp. 5-13). Although the characteristics of high-performing school leaders are not clearly specified in the MEB, such a move recognises the critical role of school leadership in implementing successful reform initiatives.

The new blueprint stresses that school leaders should enhance both administrative aspects and instructional quality focusing on teaching and learning. Aligned with international research on high-performing schools (e.g. Kaparou and Bush, 2015; Sanchez and Watson, 2021), the MEB emphasises the importance of instructional leadership for driving school improvement. In a study by Harris et al. (2017) with 30 primary school principals in Malaysia, it was observed that leaders spent a significant amount of time encouraging teachers to participate in TPD and supervising instructional practices. The authors argue that although the principals' actions align with instructional leadership, their approach is significantly influenced by the expectations set forth by the SEDs, DEOs and the MOE. As an illustration, the MOE emphasised the importance of 'protecting instructional time' (MOE, 2013) at the start of the MEB, and this becomes a pivotal practice observed among the principals in the study. Salleh and Hatta (2018) identify a similar trend in 15 secondary cluster schools across Malaysia, where principals engaged in instructional leadership through focused classroom visits. This practice ensured teachers' presence and maximised instructional time by starting and ending lessons punctually. However, the evidence suggests that the extent of instructional leadership practices seems limited, and further investigation is needed, particularly in the context of Sabah.

There has been an increasing focus on school leaders' contributions to school improvement and reform initiatives (Ng, 2008; Silam, Pang and Lajium, 2021). However, research on school leaders has focused on the leadership of principals (Bishen Singh, 2019) and less on other formal leadership roles in the school system (Harris *et al.*, 2017; Rasidi, Amin and Aziah, 2020). Consequently, it is imperative to conduct further research on the skills, practices, and knowledge of school leaders, including SSLT and MLT. Rasidi et al. (2020) highlight the lack of empirical data, particularly for MLT, in Malaysia, and this gap is even more critical for Sabah and Sarawak.

Furthermore, research is required to determine how instructional school leaders work together as teams to leverage school-based TPD to speed up the development of schools and systems, as opposed to concentrating only on principals (Harris et al., 2017). Furthermore, studies on school leaders often focus on individual responsibilities or traits in isolation, rather than considering their collective efforts toward larger goals, such as educational reform (see Harris et al., 2017; Silam et al., 2021). In alignment with this argument, the MOE acknowledged the importance of high-quality SLTs and proposed a distributed model to enhance capacity-building support and operational flexibility.

Given the centrality of quality school leadership for Malaysia's educational reform, the MEB mandates all new first-time principals to complete the National Professional Qualification for Educational Leadership (NPQEL). *Institut Aminuddin Baki* (IAB) Malaysia, the provider of PD for school leaders, is tasked with creating and delivering leadership training modules for school principals and aspiring principals, including NPQEL. There were multiple revisions to the leadership preparation course, the most recent of which was introduced in 2018 and uses a competency-based approach with ten competencies grouped into four domains (Figure 2.1).

Figure 2.1: Competency domains of NPQEL version 2018 (*Bishen Singh, 2019*)

Prior to the 2018 version, the NPQEL was a knowledge-based model (Bishen Singh, 2019). Additionally, the IAB aims to provide individualised PD support for every principal, while underperforming principals will benefit from intensive, one-on-one coaching from appointed district coaches.

Although the findings from Adams et al. (2020) indicate that the NPQEL supports school leaders in acquiring the characteristics and abilities needed for leadership roles, in line with the MEB, a number of schools adopted an allocative model of distributed leadership, in which principals shared responsibilities with senior leaders in a manner that was akin to delegation of tasks (Bush and Ng, 2019) as opposed to collective decision making based on formal and informal interactions between leaders (Spillane, 2005). Contributing factors could include the top- down hierarchical structure of Malaysian schools, which gives principals ultimate decision-making authority, and a lack of knowledge about the duties and responsibilities of other formal school leadership positions (Javadi, Bush and Ng, 2017). To fully grasp how NPQEL affects school leaders' ability to lead school reform and meet the expectations of Malaysia's evolving educational landscape—particularly in Sabah schools—more empirical data is required.

2.2.3 Empower JPNs, PPDs, and schools to customise solutions based on need (Shift 6)

Further support is offered through Shift 6 in the MEB, in which the District Transformation Programme (DTP) is seen as an effort to strengthen the leadership of the SEDs, DEOs and schools' personnel to accelerate school

improvement and planned interventions based on local contexts (Appendix C). The DTP seeks to strengthen state, district, and school leadership so that guided autonomy can be exercised, particularly when making decisions about daily operations and implementing specialised interventions in line with the local context. The fundamental goal of the DTP is to close the educational gap between urban and rural groups, socioeconomic statuses, and genders, particularly within states. Hence, the SEDs and DEOs are given more authority and are held responsible for improving school performance through strategic approaches and focused interventions.

A key strategy for tailoring support to schools is through C&M by a group of officers appointed as full-time coaches in DEOs (Shafee et al., 2019). The coaches (SISC+) are expected to support teachers in pedagogy, assessment, and curriculum (MOE, 2013), while SIPartner+ officers work alongside principals and SLTs to customise planning and monitoring efforts for school improvement. They are also expected to facilitate schools in PLC implementation to improve student outcomes and promote sharing of best practices within and among schools at district and state levels. Additionally, SISC+ and SIPartner+ officers are also responsible to develop teachers' and leaders' competencies in implementing the MEB initiatives in schools based on their contexts (MOE, 2013).

However, despite efforts to contextualise TPD through the support that SISC+ and SIPartner+ officers offer to schools, these agents are also responsible for the policies that the MOE enforces. Bush et. al. (2019) reveal that district-level initiatives, such as the appointment of SIPartner+ and SISC+, are insufficient to alleviate concerns that change is thrust upon teachers and schools rather than being "owned" by them. The authors argue that the centralised, "mandated" structure of Malaysia's education system conflicts with the need to contextualise the implementation of policy reform. Amidst hierarchical management structures and the cascade approach to TPD delivery, the realisation of customised TPD processes remains elusive.

While the MEB document is impressive, it is evident that there are challenges in implementing its aspirations within schools.

2.2.3.1 Challenges of policy dissemination and implementation

Successful policy implementation hinges on the dynamic interplay among policies, individuals, and contexts (Honig, 2006). Given that education reforms aim to enhance the school's "instructional core" (Elmore, 2004), the pivotal roles of classroom teachers and school leaders in shaping policy success cannot be overstated. It is imperative to view them not merely as implementers of reforms dictated by central administration but as integral contributors to the policy formation process (Bush et al., 2019). A review of the MEB proposals and implementation conducted by Bush et al. (2019) reveals that the lack of ownership, a mismatch between policy aspirations and teachers' needs, and the influence of a hierarchical cultural system contribute to reform malfunctions.

Literature consistently emphasises the significance of establishing ownership through inclusive decision-making processes and aligning reforms with teachers' intrinsic motivations for successful education reform (Widodo and Riandi, 2013; Fullan, 2016; Brinkmann, 2018). Engaging educators in these ways fosters commitment, enthusiasm, and a shared responsibility for effecting sustainable change in education systems (Bush et al., 2019; Fullan, 2016). Understanding teachers' motivations emerges as a central tenet in driving comprehensive education reforms (Fullan, 2016). The absence of this understanding creates a disconnect, impeding the reform process (Bajunid, 2019).

While the MEB incorporated consultations with diverse stakeholders, including principals and teachers, the subsequent policy implementation primarily engaged principals, SEDs, and DEOs, with a predominant focus on resource provision, side-lining direct teacher involvement in policymaking. Bush et al. (2019) argue that this approach neglects to leverage teachers' intrinsic motivations, resulting in a lack of ownership, reduced engagement, and diminished commitment to change (Widodo and Riandi, 2013; Proudfoot and Boyd, 2023). Consequently, the absence of professional ownership, identified as a "prerequisite for effective reform implementation even in centralized education systems" (Bush et al., 2019, p.4), poses a hindrance to the reform process in many Malaysian schools. The attempt to empower internal school enablers for educational reforms through programmes like TS25 and TSP is seen as positive for contextualising reform. However, the selected schools, chosen by

SEDs and DEOs based on specific criteria, are also held accountable for implementing policy initiatives. Consequently, the reform is perceived as more imposed than 'owned' by schools and teachers (Bush et al., 2019).

Besides, the reform features the evidence of 'globalisation' (Bush et al., 2019), as seen by a substantial degree of policy borrowing from reform policies and programmes in more developed nations while disregarding the actual contexts and cultures of the localities and schools in Malaysia. The impact of policy borrowing seems to challenge the implementation process at school level.

Teachers felt that the goals of the policies are unrealistic (Ibrahim, Razak and Kenayathulla, 2015), as many states, notably in East Malaysia, continue to face issues such as low resources and inadequate infrastructure to facilitate implementation (Ansawi and Pang, 2017; Bajunid, 2019).

Additionally, TPD content should align with reform policies and consider their impact on teaching and learning (Popova *et al.*, 2018), while also addressing specific problems in schools across various localities (Desimone and Garet, 2015). Unfortunately, in Sabah, as highlighted by Senin (2005), Hiew and Murray (2018), and Madon (2019), this has not been the case. Teachers involved in these studies reported that much of the TPD content was either irrelevant or challenging to implement in their own contexts. Consequently, the implementation gap is a result of unrealistic policies that do not align with the realities of schools. Moreover, weak feedback loops associated with Malaysia's centralised hierarchical educational management are another factor impeding policy implementation. Bush et al.'s (2019) review of the MEB underscores state officials' perspectives, viewing policies as mandates from top management that should not be questioned, leading to a lack of feedback for policymakers regarding the practical implications of reform initiatives.

The 2019 review sheds light on additional barriers to the effective dissemination of policies across different states in Malaysia. In rural areas such as Kelantan, Sabah, and Sarawak, participants faced considerable communication challenges arising from insufficient infrastructure and long travel distances, which hindered the dissemination of policies. On the contrary, in predominantly urban states like Johor, Kuala Lumpur, and Selangor, participants primarily voiced concerns

about teacher attitudes and resistance towards reforms. While the initial information was gathered from state officials and principals, this present doctoral study broadens its scope by including other school leaders and teachers, thereby enhancing our understanding of the challenges encountered in policy dissemination. The complexities of challenges in educational reforms highlight the importance of adopting a context-sensitive TPD model.

2.2.3.2 Challenges of the top-down, cascade model of TPD

There is evidence that the cascade method of disseminating policy is ineffective (Hiew and Murray, 2018; Bush et al., 2019) and often results in the dilution of information (Bajunid, 2019). Since Malaysia's existing forms of TPD are largely top-down with pre-determined goals and strategies, teachers struggle to relate to their learning gains and apply them into their diverse contexts. Thus, there is a lack of understanding and ownership of the reform policy among various stakeholders. For example, the initiative to implement ICT-enabled classrooms under the '1BestariNET' project in all public schools by 2014, was largely unsuccessful due to the constraints of time, limited ICT skills and poor English proficiency in using the learning management system introduced– FROG Virtual Learning Environment (Cheok and Wong, 2016). Furthermore, remote schools, particularly in Sabah and Sarawak, struggled with poor or no internet coverage and the absence of technical support throughout implementation, leading to the project's cancellation in 2019.

The discrepancy between teachers' instructional and learning needs and the content provided can be attributed to a lack of thorough needs analysis and data to inform planning. Hiew and Murray's (2018) study indicates that the external TPD provider failed to conduct a Needs Assessment before choosing participants for cascade training, thereby neglecting the crucial step of identifying the disparities between teachers' existing and desired proficiency levels. An equally important finding of the study is the lack of teachers' involvement in the decision-making and design processes of the programme content which is crucial for developing a context-sensitive approach. As a result, schools and teachers are missing the intrinsic motivation needed to change their beliefs and, in turn, their practices (Widodo and Riandi, 2013; Brinkmann, 2018).

Further, Bush et al. (2019) found that the SED and DEO officials, school leaders, teachers and other stakeholders rely solely on cascaded information without reading the actual policy documents and blueprints. The partial or weak understanding of the reform initiatives by lay stakeholders results in the feelings of helplessness and mistrust of policymakers (Ibrahim et al.,2015; Bush et al. 2019). Additionally, the lack of understanding of the reform initiatives also contribute to the disconnect between implementation agents and management at all levels, which causes a poor alignment and conflict of priorities (Bush et al., 2019; Bajunid, 2019). Having many leaders within compartmentalised domains has resulted in a large educational bureaucracy, with coordination even more challenging (Bajunid, 2019). Achieving synergy between all agents of educational change at various levels would enable system-wide transformation to achieve its intended goals (Liu and Dunne, 2009; Dimmock *et al.*, 2021).

In addition, Hiew and Murray (2018) reveal several limitations associated with the cascade model of a TPD programme for Sabah English teachers. The study reveals that the potential benefits of the programme were compromised due to the flawed selection of participants, resulting in lower self-esteem among them, and the absence of follow-up visits to support teachers in schools. This finding highlights the failure of TPD providers to consider that teachers are a diverse set of learners with varying degrees of learning requirements and experiences (Sikes, 1992), as well as the necessity for continued support for teachers in schools following the initial provision of external TPD.

Despite its shortcomings, the cascade model continues to dominate Malaysia's TPD initiative. The 2018 study focused on a specific programme for English teachers without a direct link to the broader reform agenda. Further justification for the present doctoral study extends the knowledge base in this area by investigating its connection to school-based TPD implementation in relation to whole system educational reforms.

2.3 Teacher professional development for educational system reform in Asia

A sizable body of literature outlines the recommendations and difficulties of implementing system-wide educational reform (Little, 1993; Fullan, 2016; McLure

and Aldridge, 2023). Such reforms are trending across the globe, and particularly in parts of Asia. Such a move requires the whole educational system to be mobilised to focus on implementing multiple policies, such as - redesigning and reorganising the curriculum, changing pedagogies, retraining teachers, modifying the methods and contents of assessments, and placing greater expectations on leadership at school level as more decentralised functions switch to schools from central governments (Dimmock *et al.*, 2021). Reform efforts must simultaneously concentrate on enabling leaders at different systemic levels and allocating resources to facilitate the execution of programmes and policies (Bajunid, 2019). This intricate process is made more complex in an educational system that is primarily hierarchical and top-down. This section draws on pertinent research on system-wide educational reform, especially in top-down, hierarchical systems.

For educational reform movements to be successful, the quality of instruction in the classroom—where the next generation is shaped—is central to the reform agenda. However, developing the teaching capacity of the entire teacher workforce remains one of the biggest challenges in the global push for better learning outcomes for students. Consequently, policymakers place emphasis on TPD as one of the key drivers for success. TPD's overall purpose is to introduce or improve teachers' knowledge, abilities, and attitudes in response to their students' current needs and the policies or reforms that the external environment expects (Avalos, 2011).

However, major changes to teachers' practices and beliefs need time (Darling-Hammond, Hyler and Gardner, 2017) and (often) the support of whole-system reform with greater internal accountability to ensure sustainable changes in teachers' practices and student outcomes (Fullan, 2016; Dimmock *et al.*, 2021). The literature on system-wide educational reform in hierarchical systems such as Malaysia reveals that implementing changes on such a large scale, involving multiple dimensions and various stakeholders, often over vast geographical areas, proves a major and complex challenge. It is thus unsurprising that system-wide reform policies are often met with superficial change and even failure (Hallinger and Lee, 2011; Bajunid, 2019; Dimmock *et al.*, 2021; Proudfoot and Boyd, 2023). TPD for educational system reform is an emerging area of research and there are still many grey areas needing exploration if a better system is

desired – a knowledge gap to which the present study purports to make a contribution.

In a policy environment of school system reform and its formulation of multiple ongoing changes to practice - TPD needs to be a continuous and combined process, which can (or should) be encouraged by governments at the system level (external enablers), and supported, managed and led at the school level (internal enablers) (Hudson, Hunter and Peckham, 2019). Teachers need support in applying and developing their knowledge and skills in the classroom to improve student results, while also improving their attitude and motivation to improve their professionalism. TPD activities usually focus on enabling teachers to align instructions with targeted content standards that the students need to achieve as outlined in the MEB policy reform document. However, a more pressing concern is whether TPD addresses issues of interest and importance to teachers (Harris, 2000) and aligns with their underlying beliefs in which their practice is rooted (Brinkmann, 2018) – a tenet that the present doctoral study explicates.

Malaysia is not the only Asian country reforming its entire educational system. Over the past ten years, China, Korea, Vietnam, Singapore, Thailand, and Indonesia, have all made significant changes to their educational systems in an effort to produce future generations who can cope with the demands of the 21st century. As in these Asian countries, the Malaysian government sees TPD as the backbone for the success of educational system reform (MOE, 2013) and as a vehicle to improve teachers' skills to facilitate student-centredness (El-Bilawi and Nasser, 2017) and foster teachers' self-directed learning in ways that benefit student learning (Nguyen and Bui, 2016).

Despite its significance, research in TPD is a relatively new field that does not receive enough attention within Malaysia's educational reform framework. It is challenging to determine the quality of TPD given the lack of reliable, research-based data. King et al. (2023) also claim that evaluation is one of the weakest links in TPD. To support the ongoing investment in TPD and teacher learning, a more thorough evaluation is required (King et al., 2023), especially one that takes into account how TPD affects the learning outcomes of both teachers and students (Boylan *et al.*, 2018).

In Vietnam, school principals and teachers have become motivated to pursue TPD as they see the importance of staying current with changes in education (Nguyen, Phan and Le, 2020; Tran *et al.*, 2020). Furthermore, they note that educational reforms have created more opportunities for teachers to learn. However, Nguyen et al. (2020) argue that the predominant top-down TPD is inconsistent with teachers' needs and interests within their contexts, which results in their TPD engagement failing to impact their teaching practices in a sustainable way (Ho and Dimmock, 2023). Additionally, the concurrent use of top-down and bottom-up approaches, according to (McAleavy, Ha and Fitzpatrick, 2018), causes conflict and makes schools inflexible, rigid, and unresponsive. Additional factors contributing to the issue are certain contradictions and redundancies in the guidelines sent out to schools and the lack of preparation time which results in teachers not fully understanding the policy goals (Ho and Dimmock, 2023).

Similar issues persist in the educational reform movements of Thailand and Indonesia, where a top-down approach prevails despite efforts to decentralise educational management and decision-making. According to Kusanagi (2022), reform initiatives in Indonesia have not succeeded in raising the standard of instruction because policy and practice diverge, and teacher development is still an elusive process. Research on major educational system reform in Asia also draws attention to the problem of cultural disparities brought about by the practice of policy borrowing and high stakes examination in Asian schools (Dimmock and Walker, 2005; Liu and Dunne, 2009; Hallinger and Lau, 2012; Kusanagi, 2022). Policymakers often fail to consider the complexity of system wide reform (Hallinger and Lee, 2011) which is evidenced with the absence of 'collaborative policymaking' (Hudson et al., 2019) and efforts to engage with teachers' culturally-shaped beliefs rooted in their context (Brinkmann, 2018).

Despite the challenges, there are insightful lessons gleaned from the literature on TPD for educational system reform. Ho and Dimmock (2023) suggest that teachers need detailed, appropriate and continuous guidance and support in their learning process. To make reforms applicable in their contexts, teachers need to be flexible and able to make adaptations which will be possible with appropriate knowledge, skills and experiences (Quinn and Kim, 2017). Hence, capacity building to promote teacher agency is critical and can be achieved

through more scaffolded TPD approaches, high-quality supporting materials, as well as sufficient resources and professional support in order to translate policy initiatives into classroom practices (Ho and Dimmock, 2023).

However, there is a dearth of literature on processes and conditions supporting teachers' learning, particularly in the context of TPD for educational reforms. This deficiency extends to understanding how teachers learn from TPD, hindering the identification of effective activities that drive changes in practice and student outcomes (King, 2014). Consequently, the factors contributing to the success or failure of TPD programmes are unclear (Desimone and Garet, 2015). To address this gap, additional empirical evidence is needed to comprehend the mental processes involved in learning (Little, 2007), as well as how teachers exercise agency as learners and change agents in educational reform (Imants and Van der Wal, 2020). Furthermore, ongoing discussions in TPD literature underscore the importance of a common framework, explicit guidelines, and programme evaluation.

As stressed by many scholars, consideration of the diversity of workplaces and the perspectives of teachers as change agents are critical in making reform efforts work (Merchie *et al.*, 2018; Nguyen, Phan and Le, 2020; Sancar, Atal and Deryakulu, 2021; McChesney, 2022). Teachers have the capacity to adopt, adapt or resist the TPD activities that they deem irrelevant or inapplicable to their context (Nguyen et al., 2020). Additionally, the literature also highlights the influence of the wider, broader context on school context, culture and teacher learning (Hallinger, 2018; King, Poekert and Pierre, 2023). To explore the relationship between the internal and external environments and how it influences the TPD experiences of teachers in their capacity to implement reform in their context, more robust research is needed. Malaysia's educational reform being centralised, understanding the relationship between government and teachers is even more crucial to inform future TPD initiatives. Such knowledge should help policymakers and TPD providers understand and plan for TPD programmes that yield the desired outcomes, that is, teachers' professional learning (McChesney, 2022; King et al., 2023).

2.3.1 The complex-adaptive system theory

In the face of decentralisation, diverse stakeholders, and increased information availability, Burns and Köster (2016) emphasise the necessity for current governance to strike a delicate balance between local diversity and national objectives. Complex adaptive system theory (CAST), though still in its infancy (Holland, 2014), rightly assumes that education systems are complex, but that schools have some agency or autonomy in responding and adapting to national policy reforms (Dimmock et al., 2021). This autonomy, according to Dimmock et al. (2021), along with schools' ability to cope with uncertainty, makes schools complex adaptive systems, as both part of their larger macro-system of education and micro-systems in their own right. Individual behaviours and collective practices within schools play a role in responding to reform environments. Dimmock et al. (2021) suggest that even in centralised systems such as Vietnam, central control is limited by numerous factors, including multiple layers of bureaucracy and political hierarchies, geographical remoteness, local politics and interest groups, and school personnel (principals' and teachers' own predilections), enabling schools a certain degree of latitude in how they respond and adapt to whole system reforms. Hence, education system reform is characterised by non-linear cause-and-effect scenarios, making school adaptations unpredictable.

TPD learning can also be characterised as complex and adaptive, given that outcomes for each teacher vary based on individual beliefs, motivations, as well as school and classroom contexts, potentially leading to either learning or a lack of change in teaching practices. Hence, CAST offers a comprehensive and dynamic framework that corresponds to the intricate nature of TPD, allowing for flexibility, the emergence of innovative practices, self-directed organisation, and consideration of the broader educational landscape. The literature-based conceptual model in Figure 2.4 reflects the concept of CAST.

2.3.2 Relevant learning theories for teacher professional development

Teacher beliefs and identities are central in activating their engagement in TPD and learning. According to Brinkmann (2018), enforcing new ideologies that are at odds with teachers' underlying beliefs leads to a lacklustre commitment to

learning and a change in practice. TPD is deemed effective when it results in changes of beliefs, practices and improvement in students' learning outcomes (Avalos, 2011; Darling-Hammond et al., 2017). As teacher learning is central to TPD, it is important to note the processes that help transform teachers' practice and consequently, improve students' outcomes. In short, we need to know how teachers learn and what is their motivation for learning (James and McCormick, 2009; McMillan, McConnell and O'Sullivan, 2016).

Opfer and Pedder (2011) posit that teacher learning is a result of interactions with and between teachers, TPD experiences, and their environments. How that interaction transpires and whether learning will come from it remain opaque in the literature, and even more critical in the chosen context for this study. Thus, in further justifying this doctoral study, it investigates these relationships and interactions in four selected Sabah secondary schools to better understand the impact of TPD on school leaders' and teachers' capacity to implement educational reforms. Understanding how learning informs the formulation of TPD (Bubb and Earley, 2007) and recognising the critical aspects and elements of TPD that benefit teachers' development are crucial. To further understand the motivation for teachers' engagement in TPD, we need to look at relevant learning theories that may help explain and rationalise their attitudes, perceptions, and involvement with learning.

According to Postholm (2012), learning is an active process, whether it be individual instruction or mental stimulation (cognitivism), or the co-construction of meanings within social interactions (constructivism). These learning activities can be in the form of formal (Timperley, 2011) or informal structures (Kyndt *et al.*, 2016), either at school or external settings (Bubb and Earley, 2007). As learning activities, they should enhance teachers' expertise and professionalism for the benefit of student learning (Cordingley *et al.*, 2015; Cirkony *et al.*, 2021).

This present study draws references from four commonly related learning theories for teacher learning and TPD: Adult Learning Theory (AL); Experiential Learning (EL); Social Theory of Learning (STL); Situated Learning Theory (SL). These theories emphasise two key aspects of adult learning: the learners and

the learning conditions; and that learning is both a social and an individual process.

2.3.2.1 Teachers as learners

The aforementioned learning theories emphasise the significance of learners' prior experiences and knowledge, their readiness or motivation to learn and implement their learnings, and their ability to engage in reflective practices.

Congruent with constructivism, "learning builds on prior experiences and knowledge" (Osterman and Kottkamp, 2004, p. 18). Both Kolb's (1984) and Dennison and Kirk's (1990) EL cycles emphasise that learning occurs when experiences are transformed into knowledge. For meaningful learning to occur, teachers should put their new learnings into their own classroom practices to receive feedback and make improvements. Knowles' (1984), AL theory also recognised that learning occurs when teachers learn from their own experiences by analysing and solving problems in their own classrooms. Without reawakening their previous knowledge and experiences, teachers cannot learn (Warford, 2011) and improve. It is crucial to acknowledge the wide variety of previous experiences, knowledge, skills, interests and competencies that teachers have when planning for their TPD (Bubb and Earley, 2007).

Aside from that, AL theory emphasises the importance of learners' readiness to learn. When new ideas have a direct impact on their work or personal life, adults are more ready to adopt them. However, each learner's perceptions and beliefs will influence their learning and how they accomplish things (Dennison and Kirk, 1990), which will impact their readiness to learn. Thus, teacher readiness to learn is an important consideration in TPD planning.

A further essential skill required for learning is the learner's ability to engage in meaningful reflection. According to Clarke and Hollingsworth (2002), change occurs during reflection. Through reflection, teachers learn to make decisions about the changes that they plan to make, and they transfer their learning directly to practice as they experiment with new ideas and strategies. As they discover more new ideas and strategies, they build on their knowledge and experience, which then form the basis of their continuous reflective practice. In

the literature, the reflection process has garnered considerable attention as a crucial component of TPD (Runhaar, Sanders and Yang, 2010; Korthagen, 2017). It is seen as an instrument to trigger changes in beliefs and, in turn, improvement in teaching practices and student learning outcomes (Avalos, 2011; Korthagen, 2017). Accordingly, learning from experience demands reflection. Learning is the outcome of reflection (Dewey, 1933) as learners make sense of their experience and relate it to their current practice (Clarke and Hollingsworth, 2002).

In summary, teachers' motivation to learn linked to readiness shaped by individual needs, beliefs, and perceptions is crucial to their learning. The importance of reflective practices is also highlighted, as teachers integrate past experiences and knowledge, fostering innovation and changes in instructional practices. This iterative process enhances teaching competence and directly contributes to improved teaching quality and student achievement. This dynamic process informs the emergent conceptual model for TPD in section 2.5 of this chapter.

2.3.2.2 Conditions for learning

Learning theories highlight several conditions that facilitate learning. These conditions should be considered when preparing for TPD: relevance, practicality, ownership, and the social aspect of learning.

Firstly, adult learners are motivated to learn by intrinsic factors such as self-fulfilment and self-achievement, which make them feel better about themselves or provide them with additional opportunity to progress professionally. Consequently, TPD contents should be realistic and relevant to the personal and professional needs of teachers (Aguilar, 2013).

Secondly, learning should be practical. Adult learners are more likely to change if the new knowledge is instantly useful and has an impact on their daily activities and challenges (Aguilar, 2013; Richter, Kleinknecht and Groschner, 2019). Therefore, to ensure engagement, teachers need to see that their learnings are directly applicable to their own situations (Bergmark, 2023).

Third, is the degree of control over the process. According to AL theory, teachers are more likely to commit to learning when they have some degree of ownership in the process (Fullan, 2016). When teachers are able to direct their learning or have some influence over their learning (Aguilar, 2013; Visone, 2022), they tend to engage better in the process.

Finally, learning is seen as a dynamic, socially mediated process that occurs as a direct result of teachers' involvement in organised social activities (Warford, 2011; Admiraal *et al.*, 2021) (Warford, 2011; Admiraal et al., 2021). Wenger (1998) characterised social participation as a process of learning and knowing. When we view learning as social, it focuses on our engagement in actions and interactions which are embedded in culture and history.

Scholars believe that teacher learning needs to be situated and should take place in the schools where they work (Warford, 2011; Bergmark, 2023). It should include some type of learning community that allows teachers to engage in meaningful learning while sharing, reflecting, and collaborating in social interactions (Admiraal et al., 2021). It recognises and addresses the powerful influence of prior learning experiences and local teaching practices on teachers' development. This process demands learners to be active participants (Sims and Fletcher-Wood, 2021; Visone, 2022) and that their knowledge continue to be reshaped as they respond to the dynamic nature of schools and classrooms (Opfer and Pedder, 2011; Timperley, Ell and Le Fevre, 2017; Visone, 2022). During this social learning process, learners negotiate meanings and appropriate them through cultural artefacts such as the language they use to communicate and the tools or resources available to them (Golombek and Johnson, 2004).

The "Community of Practice" (CoP), which is considered as a social learning system, is a notion that exemplifies STL. CoP involves meaning-making that engages teachers directly and collaboratively in activities, conversations, reflections and other forms of social participation. CoP also encourages teachers to produce resources based on the shared experiences that they have discussed. Through CoP, teachers are brought together in a dynamic and active process, to negotiate and renegotiate the meaning of their experiences (Wenger, 1998), which ties in well with the EL cycle. CoP also fulfils the assumptions of AL theory and the notion that teacher learning takes place in a social/organisational

environment where colleagues influence each other, all of which necessitate a climate of trust, openness, respect, and collaboration (Bubb and Earley, 2007). Therefore, to ensure learning leads to change, the organisation needs to ensure that steps are taken to sustain the interconnectedness of the CoP and the conduciveness of the learning environment (King et al., 2023; Bergmark, 2023).

The view that teachers are both learners and change agents should be the epitome of any TPD process. We know from the learning theories discussed that teachers are more engaged in learning when they have some degree of autonomy. Teachers are more ready to learn if they see the need for it – either to solve their problems and/or for intrinsic motivation like self-fulfilment and achievement. Moreover, their learnings should be situated for them to immediately experiment and apply within their own contexts in a collaborative, inquiry-based approach. Taking all the main elements from the relevant learning theories into consideration will help TPD providers to plan for activities that get teachers excited about learning and teaching, motivated about making continuous improvements in their daily practices.

In sum, this section emphasises the significance of the organisation and the workplace in which teachers operate. The context contributes to the needs and practicality of teachers' learning, while the organisation supports the process of socially mediated learning. These influences are captured in the literature-based conceptual model in Section 2.5, emphasising the importance of the organisational and workplace context in shaping the needs and practicality of teachers' learning. This alignment corresponds with the learning theories discussed earlier.

2.3.3 Gaps in the literature

The literature on TPD has undergone gradual evolution over the years. However, authors still grapple with conceptual ambiguity and a lack of empirical evidence (Kennedy, 2014), particularly in non-Western contexts (McLure and Aldridge, 2023). Over the past two decades, scholars have made concerted efforts to develop TPD models that depict the learning process. These models have evolved from linear frameworks (e.g. Desimone, 2009; Guskey, 2002) to more non-linear approaches emphasising multiple pathways or cyclical processes, with a focus on

teachers' reflection and agency to drive change (e.g. Clarke and Hollingsworth, 2002; Evans, 2014). However, evidence suggests that the progression of teacher learning from TPD to changes in practice is not consistently linear (Admiraal *et al.*, 2021; Strom and Viesca, 2021). Furthermore, the diverse outcomes observed in TPD implementation among individuals and schools indicate the substantial influence of contextual factors and other conditions (Day and Gu, 2007; Timperley, 2011; Hallinger, 2018; Aldridge and McLure, 2023).

A new focus in TPD literature highlights the impact of TPD within accountability environments and educational reform contexts, underscoring the importance of considering the broader context in understanding teacher learning and its application in practice (Dimmock et al., 2021; McChesney and Aldridge, 2019; McLure and Aldridge, 2023). The McChesney and Aldridge's (2019) model (Figure 2.2) outlines the progression of TPD through five stages, considering barriers informed by teachers' perceptions in Abu Dhabi.
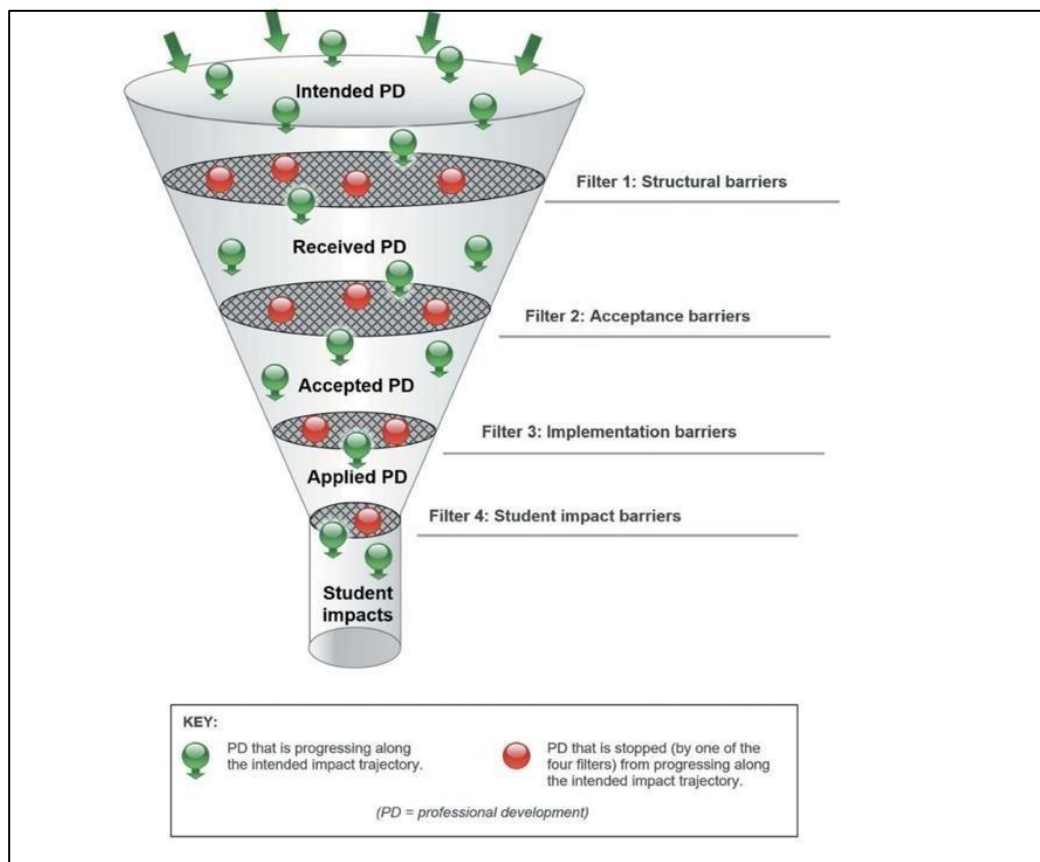
Figure 2.2: McChesney and Aldridge's conceptual model (*2019, p. 841*)

The model stands out from previous approaches by placing emphasis on identifying existing barriers that can significantly influence the impact of TPD on students' learning outcomes. This emphasis is crucial as it addresses the complex, adaptive nature of the TPD process, a facet often overlooked in other models. Structural barriers include school-related factors and language issues, addressing timetabling, location, and TPD opportunities. The model explores teachers' ability to understand and apply knowledge in real-world contexts, issues of teacher agency, and implementation and student barriers. However, the model does not clarify the relationship between stakeholders in the wider educational ecosystem, which is critical in establishing the link between TPD and educational reforms.

In recent developments, the literature has begun to explore how teacher learning is intertwined with complexity theory (King et al., 2023) and complex adaptive system (McMillan and Jess, 2021; McLure and Aldridge, 2023), providing deeper insights into TPD processes and their implications for educational practice. Moreover, scholars have started investigating the roles of school leaders and teachers as both learners and change agents (e.g., Timperley et al., 2017; Aldridge and McLure, 2023), highlighting the importance of nurturing the collective capacity of these internal actors to effectively drive reform initiatives. Nonetheless, despite the growing interest in TPD for educational reform, uncertainties persist regarding the relationship of internal change agents with the broader ecosystem. There is insufficient evidence to explain conditions promoting the development-to-impact process, given TPD's multidimensional nature involving various stakeholders and requiring specific management conditions in schools (Shirrell, Hopkins and Spillane, 2018; Cirkony *et al.*, 2021). Considering the hierarchical nature of educational reform in Malaysia, further exploration is needed to describe the interplay between all levels of management.

Current research tends to either focus on specific TPD structures – such as PLCs (Timperley et al., 2017; Visone, 2019) or on school-level factors (Admiraal et al., 2021; Aldridge and McLure, 2023), leaving gaps in our understanding of systemic dynamics. Moreover, there are empirical gaps in understanding the process of how teachers embed learning into their professional lives (Postholm, 2012; Brennan and King, 2022) particularly in non-western contexts. While scholars in

the TPD literature have focused on identifying the core features essential for effective TPD, emphasising that teachers learn most effectively through collaborative engagement within their own contexts (Visone, 2019; Sims and Fletcher-wood, 2021; Bergmark, 2023), there is limited empirical evidence on the process of developing such supportive cultures necessary for this approach, particularly within hierarchical education reform environments.

However, the research landscape regarding TPD in Asian settings is evolving, with a growing emphasis on internal or school-based approaches that focus on job-embedded learning due to its well-documented effectiveness in improving both teacher quality and student learning outcomes. Scholars are now delving into the challenges of implementing job-embedded TPD models such as PLCs, with studies focusing on factors that support (Chen et al., 2016; Chua et al., 2020) and hinder their effectiveness (Widodo and Riandi, 2013; Zhang, Zhao and Cao, 2021). Nonetheless, 'transmission models' (Kenney, 2014) such as the cascade approach, which are implemented externally to the schools, still prevail in many developing Asian countries due to logistical constraints and resource limitations, despite their shortcomings (Widodo and Riandi, 2013; Hiew and Murray, 2018). Given the importance of combining both external and internal TPD models in countries utilising both strategies to disseminate educational reform initiatives, it is essential to explore the interrelation between these approaches.

Despite their simultaneous presence and mutual influence, there is a paucity of comprehensive studies examining this relationship, especially in Asian contexts where educational reforms predominantly employ cascade models. Previous research mostly focuses on either one or the other. Studies that seek to synthesise the relationships between TPD to broader concerns such as educational reforms, policies and professionalism are few (Kennedy, 2014). Consequently, there is a need to focus on how external and internal TPD may complement one another, especially in a context such as Sabah, where accountability to the central MOE and the requirement to meet policy goals are critical. Moreover, the relevant literature reveals the significance of context and the importance of tailoring TPD to individual needs and contexts (Bush et al., 2019), necessitating thorough needs assessments and differentiated support (Day and Gu, 2007; Hiew and Murray, 2018), both of which were found to be lacking

in the Malaysian and Sabah TPD processes, highlighting the need to explore adaptive strategies capable of accommodating diverse contexts.

Scholars emphasise the importance of contextual factors in TPD, as these can either facilitate or hinder learning and reform implementation, contributing to diverse outcomes (Widodo and Riandi, 2013; Hayes, Preminger and Bae, 2024). Personal factors such as pedagogical beliefs and practices also significantly influence TPD effectiveness, with teachers' alignment with reform initiatives being crucial (Hayes et al., 2024). Intrinsic motivation is highlighted as essential for meaningful reform and sustainability (Fullan, 2016), contrasting with 'instrumental' motivation (Proudfoot and Boyd, 2023) which often results in surface or temporary change in practice. While assessing the progress in TPD is vital for improvement (King, 2014), studies evaluating its impact on teacher change and reform implementation are limited, particularly in Asian and Malaysian contexts. Understanding challenges in successful TPD implementation is critical, especially in regions like Sabah, Malaysia, which have struggled to achieve desired outcomes despite significant investment in TPD initiatives nationwide.

Given TPD's complexity and interconnectedness with its surroundings, deeper understanding and systematic evaluation are needed to inform more effective frameworks and practices, particularly in regions (such as Sabah) facing persistent challenges. Establishing a common framework that integrates key TPD concepts (Dimmock, 2016) can enhance planning and implementation, benefiting teachers and students (Desimone, 2009; Borg, 2018). Addressing the significant gap in Sabah's TPD knowledge is crucial, especially considering its academic performance compared to the rest of Malaysia, highlighting the need for a TPD model tailored to Sabah's context and grounded in empirical data.

2.4 Leveraging leadership for teacher professional development

While the instructional role of teachers remains a primary factor in influencing student achievement, there is now substantial evidence supporting the crucial contribution of school leadership teams in empowering teachers to improve student outcomes (Hitt and Tucker, 2016). However, there is a noticeable gap in understanding how school leaders can adequately support TPD, especially within

the context of Malaysia's hierarchical education management system. Decades of research underscore the significance especially of principals' leadership and its correlation to student achievement, albeit mainly indirect (Timperley et al., 2017; Hallinger, 2018) aligning with the current focus of educational policy objectives.

Acknowledging the influential role of school leaders in improving teachers' abilities, motivations, and the overall learning environment, all of which are key factors in academic improvement, educational policymakers increasingly prioritise school leadership (OECD, 2012). The debate over effective leadership models in school improvement persists, with distributed leadership emerging as the most extensively studied model in educational research, alongside instructional leadership, teacher leadership, and transformational leadership (Leithwood, Harris and Hopkins, 2020).

Scholars have highlighted the role of instructional leaders as key contributors to the success of reform implementation in schools (Hallinger, 2011; Kaparou and Bush, 2015; Hitt and Tucker, 2016). Principals are seen as strong instructional leaders when they are 'culture builders', goal-orientated, focus on leading and managing and not afraid to be working directly with teachers to improve instruction (Drago-Severson, 2009; Hallinger and Kulophas, 2020). However, navigating the complexities of leading reform initiatives in multifaceted environments poses dilemmas for principal leaders (Dimmock, 1999). Balancing instructional concerns with broader managerial challenges is a recognised difficulty (Hallinger, 2005; Constantinides, 2022). Today's principals are expected to possess diverse skills, including political, managerial, pedagogical, and administrative competencies. They must be adept human resource managers, offering constructive criticism and serving as role models for their staff. Additionally, today's principals play a pivotal role in uniting students, teachers, parents, and support staff to foster a cohesive community dedicated to the success of students (Scheichler, 2023).

Existing studies on principal leadership (Liu and Hallinger, 2018; Robinson and Gray, 2019) reveal its significant direct and indirect impact on TPD, especially in Asian hierarchical contexts characterised by an accountability-focused environment. Principal leaders serve as the connective link, bridging efforts

from diverse stakeholders within internal and external environments (Hochberg and Desimone, 2010; Constantinides, 2022). They leverage both formal authority and interpersonal relationships to establish a supportive and positive learning atmosphere that fosters teacher engagement in TPD (Liu and Hallinger, 2018; Dimmock *et al.*, 2021; Zhang, Admiraal and Saab, 2021).

Previous studies reveal that principal leaders focus too much on administrative tasks (Basañes, 2020) and too little on instructional supervision, TPD management, provision of instructional materials and protection of teaching time (Geleta, 2015). Basañes (2020) found that poor knowledge in programme development and/or adaptation, as well as moderate knowledge in implementing programmes for instructional improvement and supervision - are the challenges of exercising instructional leadership. Moreover, instructional leaders should consider and adjust their ways to meet the needs, seize the opportunities and address the challenges presented by diverse school contexts (Hallinger, 2003; Constantinides, 2022), while also being accountable as line managers in a wider system (Dimmock, 1999). Although it is widely acknowledged instructional leaders are crucial to improve student outcomes, empirical evidence is less robust and the relationship tends to be more indirect (Leithwood et al., 2020).

The educational landscape is shifting towards decentralisation, granting schools greater autonomy and accountability (Pont, Nusche and Moorman, 2008; OECD, 2012), highlighting a global emphasis on collaborative teamwork in school leadership. The focus on instructional leadership has transitioned from a principal-centric approach to a more distributed perspective (Kaparou and Bush, 2015; Shakeed, 2023). In two high-performing Greek schools, informal collaborative leadership among teachers and subject advisers, with principals in a secondary role, contributed to instructional leadership success (Kaparou and Bush, 2015). Shakeed (2023) reports that 24 middle leaders in Israeli elementary schools exhibit key instructional leadership traits: leading by example, leading by expertise, and leading by collaboration. However, more comprehensive research, including interviews with principals and other teachers, is needed to further explore this emerging topic (Lee, Hallinger and Walker, 2012).

In response to the evolving roles of school leaders at all levels, and especially in policy reform environments, scholars in the field of educational leadership have shifted their focus on to transformational leadership. Four fundamental components are identified in the Leithwood et al.'s 1998 model (in Hallinger, 2003, p. 337), which emphasises the shared or distributed nature of the roles and provides guidance for implementing transformational leadership in schools (Figure 2.3).
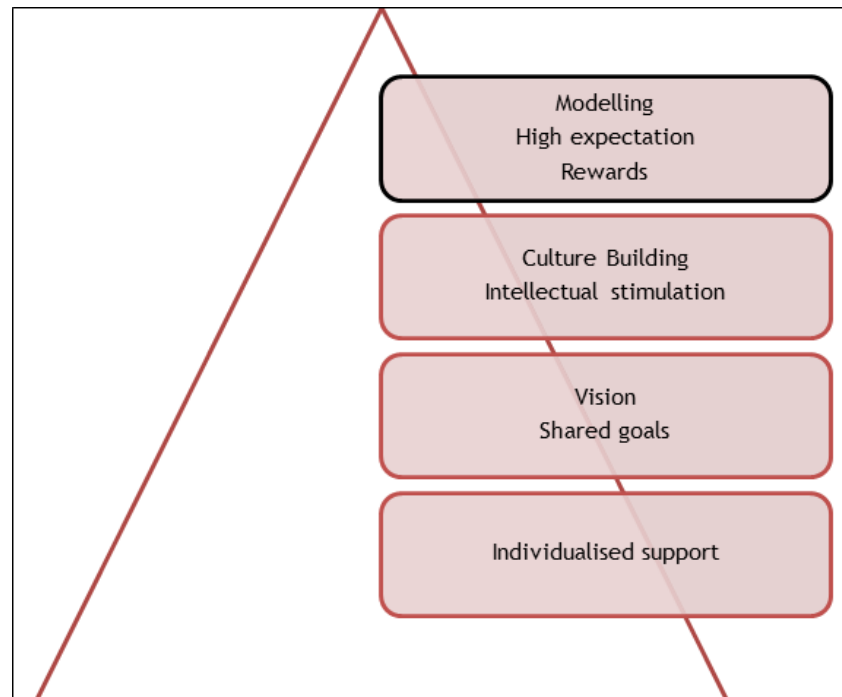
Figure 2.3: Leithwood et al. 1998's Transformational leadership model (*adapted from Hallinger, 2003, p. 337*)

According to Hallinger (2003), transformational leadership should help foster an environment where teachers regularly share what they have learned with others and engage in continuous learning. The redefined roles of school leaders are widely discussed in the literature, with a focus on principal leaders' roles in designing a positive school climate for learning (e.g. Drago-Severson, 2009; Liu and Hallinger, 2018; Qian and Walker, 2021) as well as in making sense of and implementing policy demands (Constantinides, 2022). School leadership, particularly principals, are expected to provide strong pedagogical leadership, with implications around the planning and implementation of TPD programmes (Walter and Briggs, 2012). The distributed nature of transformational leadership, which involves empowering and developing the capacities of various members of the school community, not just the leaders, has been found to affect teachers'

perceptions of how well they are implementing reform initiatives, their dedication to making changes, and their views on improvements in student outcomes (Pont et al., 2008; Hallinger, 2018).

Transformational and distributed leadership, primarily draw from studies conducted in Western and English-speaking countries, revealing diverse findings regarding their influence on student outcomes (Leithwood et al., 2020; Li and Karanxha, 2022). The exact practices and processes contributing to the development of teaching capacity and intellectual capital in schools remain ambiguous. However, as suggested by (Elmore, 2004), school improvement efforts should concentrate on improving instructions at the classroom level. He argues that lasting change occurs when there is a deliberate effort to enhance the instructional core. This involves providing support for teachers to develop their instructional practices, fostering a collaborative and reflective culture among teachers, and aligning curriculum and assessments with effective teaching methods. A comprehensive understanding of the training and leadership development received by school leaders is crucial for the effective leadership and management of TPD in schools.

2.4.1 Leading teacher professional development

Scholars have developed several models to help policymakers and school leaders better understand how they can support the TPD process. For example, (Leithwood, 1992, p. 88) introduced a framework for teacher development consisting of three dimensions to help principals tailor their support for teachers in schools. Leithwood does not, however, identify tangible activities or obvious learning processes that can assist leaders or TPD providers in fostering learning by clarifying the relationship between one dimension and progression to the next step of the continuum. In the 1990s, Leithwood discovered that many principals felt they were incapable of exerting instructional leadership, despite understanding the job demands. The lack of clarity on what constitutes TPD and how to nurture it in schools – especially along a career development continuum – undoubtedly contributes to the feeling of inadequacy in leading it (Leithwood, 1992).

The unified model of effective leadership practices of (Hitt and Tucker, 2016) also provides insights into how school leadership could support TPD processes. The model emphasises two important aspects for teacher learning: "building professional capacity" and "creating a supportive organisation for learning." In building professional capacity, the authors are highlighting the importance of school leaders directing their attention to establishing CoPs where educators are encouraged to collaborate and learn from each other, offering opportunities to meet various learning needs, and fostering trust relationships within the educational environment.

A CoP environment can create conditions and practices that support teachers in their professional growth and development. It integrates instructional and transformational leadership, emphasising teachers' involvement in decision-making, building trust with stakeholders, and fostering mutual benefits. It underscores school leaders' role in helping teachers achieve their potential through stimulating learning experiences, drawing on Maslow's concept of self-actualisation. Overall, it has the potential for promoting distributive leadership styles that prioritises teacher wellbeing and organisational success.

Similar to Leithwood's 1992 model, Hitt and Tucker's (2016) unified model of leadership practices is devoid of explicit learning processes or targeted activities that would offer TPD providers or school leaders direction when putting it into practice. The model, rooted in three distinct leadership frameworks resulting from comprehensive systematic reviews — Murphy et al., 2006's Learning-centered Leadership, Leithwood 2012's Ontario Leadership Framework and the 2016 empirical study of Chicago Public Schools by Sebring et al. (in Hitt and Tucker, 2016) — was developed in a context very different from Sabah, the focus of the current study. Insufficient evidence exists to support the assumption that the leadership practices recommended by the Unified model would produce comparable results within the context of the present study.

Studies linking leadership and TPD have increased considerably over the past two decades, not only in the USA, but also in other parts of the world, especially in Europe and East Asia - over the past 20 years. An emerging body of literature in terms of school-level leadership dedicated to middle leaders (Javadi, Bush and Ng, 2017; Shakeed, 2023) and teacher leaders is emerging (Nguyen, Harris and

Ng, 2019). These studies mainly highlight the roles and responsibilities of the different levels of leadership (formal and informal positions) in inspiring and motivating teachers to develop their teaching capabilities throughout their careers, or their situatedness within a distributed framework (Javadi et al., 2017).

Although the link between leadership and teacher learning is well established in some of the international literature (Hallinger and Kulophas, 2020; Kulophas and Hallinger, 2020), the empirical data on the impact of that relationship is still limited (Hallinger and Kulophas, 2020). Most of the leadership linked to TPD literature is discussed in a framework of implementing educational reform policies (Dimmock et al., 2021; Qian and Walker, 2013), as part of instructional or distributed leadership (Javadi et al., 2017) and individual focus on TPD activities within PLC enactment (Hairon and Dimmock, 2012; Timperley et al., 2017; Nguyen and Ng, 2020). In addition, studies that link TPD with student outcomes have been largely conducted in the United States (e.g. Darling-Hammond et al., 2017; Desimone and Garet, 2015). However, there is a scarcity of knowledge in how school leaders affect teacher learning and their capacity to implement educational reforms in schools.

In addition, existing literature indicates that practices of distributed leadership (or one of the related terms of shared leadership, collective leadership, collaborative leadership, leadership for learning, learning-centred leadership, co-leadership, professional leadership and teacher leadership) seem to be most favourable for TPD (Dimmock, 2012; Poekert, 2012; Grenda and Hackman, 2013; Admiraal *et al.*, 2021). However, Bellibaş et al. (2020) suggest that the effect of distributed leadership is mainly indirect, mediated by teacher collaboration and job satisfaction.

This present study views TPD as a system, so it is necessary to emphasise both teachers' and leaders' roles, needs and capacities, as well as the connection between TPD and school leadership development in school reform and improvement. Capacity building skills and practices by principals and other school-level leaders is clearly needed to provide proactive leadership for TPD (Drago-Severson, 2009; Dimmock, 2012; McLure and Aldridge, 2023).

Strengthening leaders' capabilities should empower internal enablers to effectively manage increasingly complex challenges over time.

However, this is not always straightforward. Many leaders struggle with change (Fullan, 2016). Capacity building of school leaders remains opaque. In fact, the global literature on evidence-based capacity building and the impact of school leadership on TPD remains ill-defined (Admiraal *et al.*, 2021) especially in Asian contexts. The field of educational leadership is still high on advocacy and theory rather than empirically tested and robust evidence of training and implementation. Further insights into the various influences of educational leadership on TPD and how they are exercised still need to be developed.

Given the nature of leadership, as well as the cultural and institutional differences in school contexts, it is difficult to disseminate school improvement and training designs across schools (Hallinger and Kantamara, 2001) since not all 'good practices' are readily transferable from one school context to another (Funner and McCulla, 2019). Studies that contrast the nature and effects of leadership, workplace conditions and teacher learning practices across societies are much needed, especially in the context of Malaysia and Sabah. Such studies should help illuminate the theories that underpin the process of promoting and engaging teachers in successful TPD, particularly a model of TPD for educational reforms that might be efficacious for Sabah. This researcher observes that the process of knowledge adaption will be considerably more difficult in the current study because the literature on school reform in Asia is considerably less substantial than in the West (Hallinger and Kantamara, 2001; McLure and Aldridge, 2023). Furthermore, scholars have emphasised that dissemination of educational practices in this region is sensitive to institutional structures and cultural norms which vary across societies (Hairon and Dimmock, 2012; Clarke and O'Donoghue, 2017; Hallinger, 2018). Therefore, gaining additional insights into the influence of leadership in nurturing trust, teacher agency, and learning in schools represents an important line of inquiry.

The main RQ and its SRQs of this thesis delve into the leadership gap in TPD, specifically in Sabah. The goal is to comprehend the necessary training for school leaders to effectively lead and manage school-based TPD systems. The present study's exploration aims to reveal the inadequacies of present TPD in a

small number of case schools in Sabah, and extrapolate insights into a context-specific, evidence-based TPD system, enabling teachers and school leaders to adapt the reform agenda to their unique contexts. Additionally, the focus on leadership contributes to understanding the factors influencing and hindering TPD implementation in schools.

2.5 Literature-based teacher professional development model

2.5.1 A Literature-based conceptual model

After interrogating relevant literature on TPD in this chapter, a conceptual model emerges, as depicted in Figure 2.4.
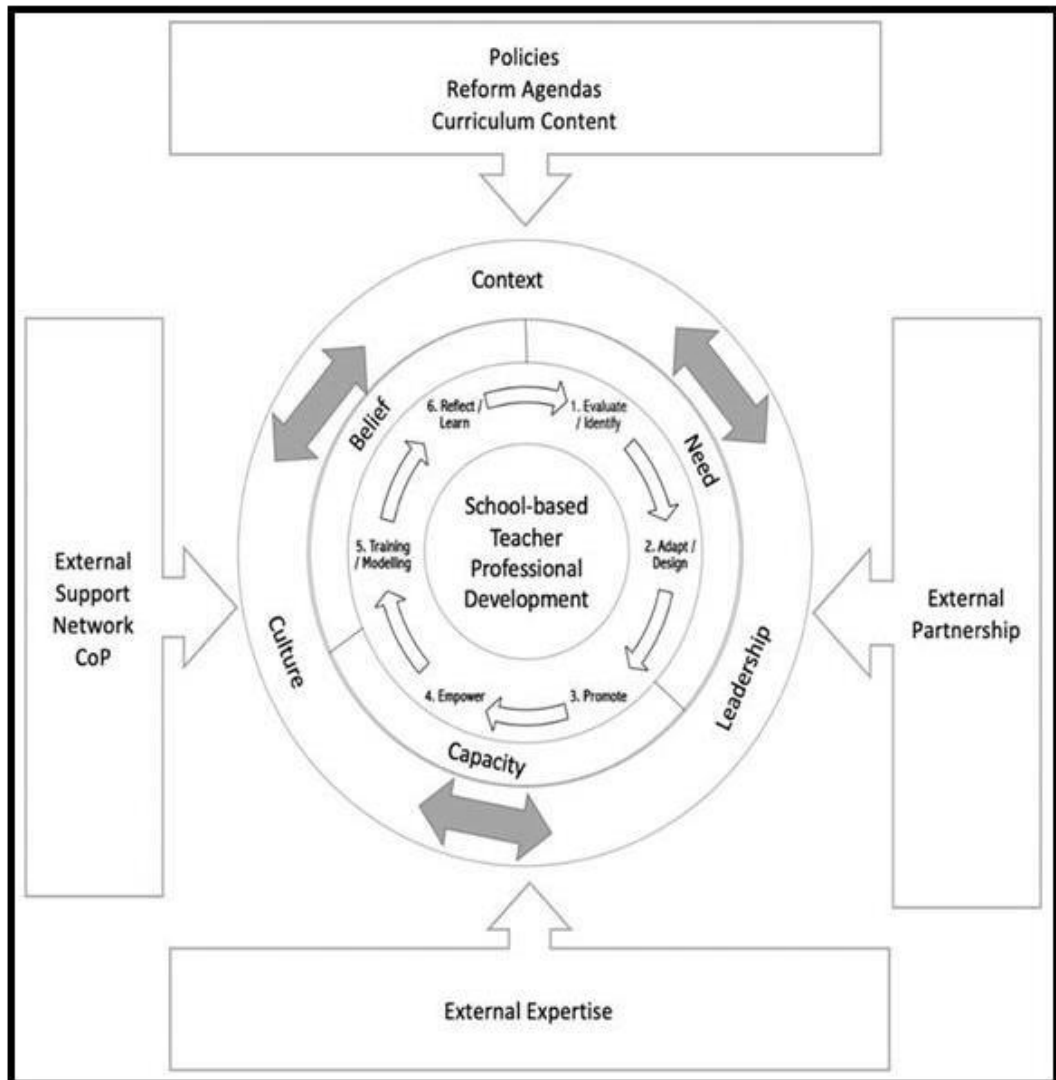
Figure 2.4: Literature-based teacher professional development model

The literature-based conceptual model integrates the principles that professional learning should be continuous, active, social, and directly tied to

practice as discussed in previous sections. Emphasising the importance of school-based TPD, the model aligns with literature suggesting that learning should be situated and job-embedded, with teachers playing a central role in the iterative process of reflection. This ongoing reflective practice is reinforced by organisational factors such as leadership, culture, and school context, depicted as dynamically interacting to enhance teachers' capacity, address their needs, and align the process with their beliefs. The conceptual model also recognises the influences on schools both from within and without, that is, the external environment, ensuring ongoing support. The model is explained in detail below.

A. Six stages of school-based TPD

The innermost layer presents the process of school-based TPD in six main stages. The process is depicted in a continuous cycle as teachers continue to learn and improve their practice.

Stage 1: Evaluate / Identify

Consistent with AL theory and the EL Cycle, this model focuses on prior experiences and data to identify goals and visions. Such data should reveal to a school's leaders and teachers where performance needs improving, and consequently, where the emphasis for TPD needs to be focused. Analysing available data to evaluate the current reality of a context is vital. Data includes the current practices that exist in schools, student performance data, barriers to implementation, as well as the current policies and contents needed to be disseminated. Schools need to be able to identify their current capacities to implement changes and their needs to improve teachers' performance.

Furthermore, schools need to be able to identify barriers and gaps that need addressing in their provision and which, in turn, suggest priorities for whole school TPD.

Stage 2: Adapt / Design

Once data are analysed and information is gathered, school leaders need to be able to make decisions that are based on their needs and priorities. Analysing

data from needs assessment and finding alignment with external TPD will help the school leaders to decide whether they need to adapt or design new TPD programmes based on needs and capacities in their own contexts. At this stage, they can decide to offer differentiation to cater for the varying needs and levels of experience while also promoting the opportunity to learn collaboratively with peers.

Stage 3: Promote

A key reason why teachers fail to develop ownership with their learning contents is the lack of understanding and commitment to do what is imposed on them (Sikes, 1992). Encouraging teacher buy-in and commitment is more likely when solutions address their specific needs and the school's challenges. This approach transfers agency to teachers, allowing them to reflect on and discuss TPD plans in alignment with their beliefs. It is crucial that the school improvement programme aligns with teachers' needs, current policies, and reforms, fostering reflective involvement in decision-making. Communicating the goals clearly to teachers is vital.

Stage 4: Empower

A logical progression involves empowering school leaders to effectively lead and manage the teacher learning process. Continuous capacity building by various leadership levels is essential to create a conducive learning environment and foster a positive school culture. This includes addressing structural and cultural aspects, enhancing leaders' abilities to facilitate reflective dialogue and PLCs.

Empowerment encompasses establishing educational infrastructures for TPD at school level, with ongoing support and monitoring. Additionally, capacity building involves empowering school leaders, including middle and teacher leaders, as catalysts for CoP and PLCs.

Stage 5: Training / Modelling

During this phase, leaders at school and district levels, play a crucial role in disseminating new learning through TPD, which involves modelling new

practices. Conducting in-house workshops to train teachers helps spread new knowledge and skills, particularly those acquired from external TPD sources.

Rather than being passive recipients of information, active engagement in learning is emphasised as a key aspect of effective TPD, as highlighted in the literature. Therefore, modelling practice becomes essential because it offers teachers opportunities to see examples of how the knowledge and skills they have learned can be applied in instructional settings. Modelling can involve external experts, school leaders, mentors, and participants themselves, all contributing to the interpretation of their learning. The training and modelling processes not only motivates and boost teachers' confidence to improve their teaching practices but also enhances student learning outcomes.

Stage 6: Reflect / Learn

Distinct from post-observation reflection, this stage in TPD serves its overall aim, acting as a stepping-stone for future decisions. Given limited TPD evaluation data, especially in Sabah, it is crucial for school personnel to reflect on their learnings, considering how these inform their next steps and illuminate implementation barriers. Evaluative data, comparing former and new practices' effects on teaching and learning, enables teachers to observe and analyse outcomes. Reflective dialogue in this stage helps identify strengths and improvement needs, fostering continuous improvement, depicted in Figure 2.4. After completing all six stages, schools embark on a new cycle, emphasising the 'Evaluate and Identify' stage to address existing barriers, revise approaches, and incorporate new learnings.

B. Teacher factors

The second layer emphasises individual teachers with diverse needs, capacities, and beliefs, stressing the importance of treating them as professionals while considering their personal characteristics. The success of TPD depends on understanding and addressing teachers' beliefs, motivations, and their active involvement in the learning process. The six stages involve teachers in decision-making, providing opportunities for reflection, exploration of beliefs, and active

learning. Encouraging teachers to experiment with new strategies in their contexts, adapt practices, and engage in meaningful feedback is crucial.

C. Context, leadership and culture

The outer layer outlines essential conditions for effective TPD management in schools. Internal factors, such as context, leadership, and culture, are interconnected and mutually influential in mediating TPD outcomes. Leadership plays a crucial role in shaping conducive learning conditions, with contextual and cultural factors influencing the required leadership style. Well-resourced schools require trust in teachers for maximising capabilities, while leaders in low- resource settings may need adaptable interventions. Leadership and workplace learning have a direct and reciprocal impact on each other.

D. External enablers of TPD

External support and guidance play a crucial role in aligning school-based TPD with ongoing educational reforms, ensuring contextual relevance. Existing literature emphasises the value of external expertise, including coaches, mentors, and educational resources, such as journal articles and online databases. Networking and partnerships, facilitated through CoP, contribute to knowledge and skills development by fostering connections between schools and educational institutions for insights and collaboration.

2.6 Conclusion

This study's aim is to highlight the importance and significance of the roles, needs and capacities of both teachers and school leaders in a connected system of TPD in Sabah schools. The review of relevant literature highlights that TPD is a multidimensional and complex system that demands leadership from all levels of the school and the whole educational system; leadership that is sensitive to the uniqueness of the culture and context (Dimmock and Walker, 2005; Hallinger, 2018).

The overarching goal of the study, reflected in its RQs and SRQs, is to support teachers and school leadership teams in Sabah design and develop a context-

sensitive, evidence-informed TPD model that will enable them to better implement educational reforms.

To enhance the depth of empirical insights in this study, the next chapter elucidates the research methodology, detailing both the design and the approaches employed for data collection and analysis.

Chapter 3: Methodology

3.1 Introduction

This chapter describes and justifies the methodology used for the study, framed by the RQs and research aims.

This research falls within the interpretive paradigm because it describes how school leaders and teachers perceived and reacted to significant system reform policies through their involvement in TPD activities. Furthermore, it identifies the factors and conditions that could facilitate or hinder effective TPD in various school settings as a strategy for implementing educational system reforms. The aims of this research were first, to understand the current problems that underpin TPD in Sabah schools; secondly, to develop a context-sensitive, evidence-based TPD model – for Sabah teachers and school leadership teams – that will help them in developing the capacity to facilitate effective and ongoing TPD for in-service teachers and leaders in a sample of Sabah schools.

The phenomenon of interest was investigated using a qualitative, multiple-case study design in four Sabah secondary schools the selection of which was based on specific criteria. The case study analysis was intended to address the following RQ and SRQs:

How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?

SRQs:
1. How do Sabah teachers and school leaders interpret their TPD experiences in order to implement the (Malaysian government's) reform agenda in their schools?

2. What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement TPD initiatives in schools?

3. Taking into account the views of teachers and school leaders, what would constitute an effective TPD programme that might enable the

successful implementation of the Malaysian government's reform agenda in Sabah secondary schools?

4. What policy and other contextual conditions would be necessary to support such an effective TPD system?

This chapter addresses key methodological issues. First, the theoretical foundations of the research are described and justified. Second, an outline of the research approach used to answer the RQs is provided. The third, fourth, and fifth sections, in turn, go into greater detail about the study's participants, data collection methods, and data analysis procedures. The sixth and seventh sections address quality criteria and ethical considerations related to the study. The ninth section explains the researcher's positioning, and the final section discusses the limitations of the chosen methodology.

3.2 Paradigm rationale

This study is an in-depth investigation of four selected schools, involving school leadership teams and teachers, to account for how they experienced and engaged in the process of planning and implementing TPD in their schools in response to the wider educational reform goals. It sought to understand the practices and processes used by these schools to enhance student outcomes while considering the broader context of educational policies and reforms. Additionally, it aims to establish connections between essential factors and conditions necessary for effective TPD implementation in schools, particularly in Sabah. Employing an interpretive perspective, the study addressed the RQs outlined in Section 3.0.

3.2.1 Philosophical assumptions in qualitative research

Philosophy, as in the use of abstract ideas and beliefs that inform research (Creswell, 2012), is important because it shapes how we formulate problems and RQs to study, as well as how we seek information to answer them (Huff, 2008). In the process of designing a research project, researchers bring to the investigation specific theories, paradigms, and perspectives (Denzin and Lincoln, 2011) that guide their actions (Guba, 1990). The philosophical assumptions consist of four major components: ontology – the nature of reality, epistemology

– the nature of knowledge, axiology – the role of values in research, and methodology – the process of research (Creswell, 2013), all of which are interconnected. These key components guide the researcher's decision on which design is best suited to answering the study's RQs.

This study, focusing on comprehending a phenomenon through the perspectives of a small sample of school leaders and teachers, was situated within the interpretive paradigm, which forms the foundation of qualitative research. Qualitative research encompasses a diverse range of interpretive methodologies aimed at describing, decoding, translating, and comprehending the meaning of naturally occurring phenomena in the social realm (Van Maanen, 1979), thereby rendering the world visible (Creswell, 2017). Scholars such as Merriam (1988) emphasise qualitative researchers' primary interest in the process, particularly in understanding how individuals interpret their experiences, construct their realities, and attribute significance to their encounters. Thus, this research design aligns with established principles and methodologies within the qualitative research tradition.

My research design was guided by the principle that social interaction and dialogue shape reality, leading to the understanding that truth is inherently subjective (Lather, 2006). Drawing upon the interpretive paradigm, my study was rooted in the ontology that rejects the notion of a singular, objective reality in favour of recognising the existence of multiple realities, with researchers actively involved in the construction of knowledge (Merriam and Tisdell, 2016). This epistemological stance, synonymous with social constructionism (Creswell, 2017), asserts that reality is socially constructed and must be interpreted by individuals within their social contexts, informed by their beliefs and values (Bryman, 2006). In this framework, participants become central agents in the process of understanding the world they inhabit, emphasising the importance of comprehending their social realities and the contextual application of rules, regulations, and norms (Bogdan and Biklen, 2007). By embracing these tenets of interpretivism, my research design not only acknowledges the complexity of social phenomena but also underscores the active role of participants in shaping their realities, thereby enhancing the depth and richness of the study.

The axiological assumption that distinguishes interpretivism and qualitative research is that the researcher expresses her 'positioning' in the study and directly admits the potential biases as well as the value-laden nature of the information gathered in the field (Creswell, 2017). In preserving the integrity of the phenomena under study, interpretivists approach research differently from positivists. They share Lincoln and Guba's views on the characteristics of naturalistic inquiry (1985). Interpretivists begin by observing people in their natural settings, sensitive to the people and places under study (Creswell, 2017). Second, they use data collection methods that reveal the meanings behind the actions of the people being studied. In interpretivist studies, common methods include interviews, observations, documentary analysis and audio-visual materials (Creswell, 2017) and the researcher is the key instrument for data collection and analysis (Merriam, 1988; Creswell, 2017). Researchers who share this viewpoint thus choose the interpretivist paradigm for their study. The interpretivist paradigm was well suited and was therefore adopted for this study for the reasons stated below.

3.2.2 Paradigm choice and justification

This study employed a qualitative multiple-case study approach grounded in interpretivist epistemology to explore Sabah teachers' and school leadership teams' experiences with TPD for educational reforms. Recognising the subjective nature of reality, the researcher aimed to understand how participants' perceptions, shaped by social interactions and environmental factors, influenced the effectiveness and significance of the TPD process within the school setting (Merriam, 1988). Aligned with the interpretivist approach, this research was primarily concerned with recognising and narrating the meaning that Sabah school leaders and teachers give to their experiences and actions with regards to TPD. This study sought to gain insights into the complexities of their beliefs, understandings, and actions related to school-based TPD, which are constantly negotiated, debated and interpreted (Merriam, 1988) resultant from their interactions among themselves and with the environment.

The use of qualitative methodologies in this study allowed the researcher to investigate specific and personal opinions on participants' perceptions of TPD and

establish the groundwork for some valuable shared understandings that formed the propositions for this study.

3.3 Research approach

This study utilised a qualitative design to investigate the phenomenon of TPD in Sabah schools. Understanding the characteristics of qualitative research is crucial for comprehending this approach, as qualitative research aims to explore the ordinary and/or exceptional lives of individuals, groups, organisations, cultures, and/or society through extensive interaction with participants in a naturalistic context (Miles, Huberman and Saldaña, 2014). Given the limited existing literature on TPD in Sabah, this study aimed to fill this gap by listening to the perspectives and experiences of Sabah school leaders and teachers, contributing to future school improvement efforts.

Qualitative researchers delve into how individuals construct meaning and make sense of their experiences (Merriam and Tisdell, 2016). This approach, ideal for studying organisational processes and individual experiences (Miles and Huberman, 1994), aligned with the aim of understanding how Sabah school leaders and teachers perceive and engage with TPD processes. The present study prioritises discovery, insight, and understanding from participants' perspectives, aiming to contribute meaningfully to educational knowledge and practice (Merriam, 1988). Naturalistic inquiry emphasises contextual understanding of phenomena, requiring sensitive data collection tools, often facilitated by human observation and interaction (Merriam, 1988). Consequently, the researcher acts as the primary instrument for data collection and analysis (Creswell, 2017). By immersing in settings, qualitative researchers gain deeper insights into participants and their environments (Merriam, 2009; Yin, 2009).

Creswell (2018) presents five qualitative approaches to inquiry – namely, narrative, phenomenological, grounded theory, ethnography and case study research. For this study, the researcher adopted qualitative multiple-case study design to investigate the phenomenon in four Sabah schools for the reasons detailed below.

3.3.1 Case study design

Case study methodology involves an in-depth examination of a bounded system, which can range from a single programme to an organisation or a group of individuals (Merriam and Tisdell, 2016; Creswell, 2013). By focusing on bounded systems, researchers can develop a nuanced understanding of real-life phenomena within their contextual settings (Yin, 2009), observing participants in their natural environments (Merriam and Tisdell, 2016). Through comprehensive data collection from various sources, case studies illuminate the processes and events central to the researcher's inquiry (Gall, Gall and Borg, 2003). Moreover, this approach facilitates a broader understanding and interpretation of educational phenomena (Merriam, 1988).

The decision to adopt case study design was also determined by the amount of control over the phenomenon (Merriam, 1988; Yin, 2009), the nature of the RQs (Merriam, 1988; Yin, 2009), and the intent of the investigation (Stake, 1995). This is an instrumental multiple-case study because the main purpose was to seek better description of TPD phenomenon by selecting multiple cases to illustrate how the experience materialises in different contexts (Stake, 2006). Furthermore, the researcher had no control over the current phenomenon under investigation, and thus, the choice to adopt a case study design was justified.

There are several advantages to case study design. Firstly, the design allows the researcher to capture both the phenomenon and the context. The present study focused on the challenges of implementing educational reforms through TPD initiatives, with a particular emphasis on the contextual influence on this phenomenon. Examining TPD within the context of Sabah schools provides insights into the experiences and perspectives of participants, primarily school leaders, teachers, and the researcher. Since qualitative researchers seek to understand rather than change an environment; they try to avoid manipulating the environment and maintain an 'etic' perspective throughout the data collection process. Being able to maintain this perspective helps in the conceptual and theoretical understanding of the case, as well as reporting the findings in a way that clearly demonstrates the researcher's contribution to the literature (Gall et al., 2003).

Secondly, with case study design, the researcher was directly involved in the data collection and analysis process (Creswell, 2018). As the researcher was the key instrument for data collection and analysis, she became fully immersed in the participants' natural environments (Gall et al., 2003) and gained a deeper understanding of the subject under investigation. Furthermore, the researcher was able to interact with the participants while gaining an "emic" perspective by observing them in their natural environments (Gall et al., 2003).

Finally, the use of multiple sources of data enhanced the validity of the case study findings through a process of triangulation which is explained in the data analysis section. Each type of data collection method may be better suited for specific reasons, and they are frequently used in tandem. In this study, the researcher used multiple sources of data gathering methods - namely, semi-structured interviews, focus group interviews, non-participatory observations, basic survey, documentary and audio-visual analysis to get an in-depth description for each case study. Having multiple sources of data provides ample opportunity for the researcher to identify important themes and constructs to present an in-depth understanding of the problem under study (Creswell, 2018).

All of the preceding points clarify the conditions that make a case study design a viable option for this study and aid the researcher in determining the unit of analysis to be investigated. Each case school is a "bounded system", making it a suitable strategy for the researcher to cover contextual conditions.

3.3.2 Multiple-case study design

Case studies, whether focusing on a single site or multiple sites (Merriam, 2009; Stake, 1995; Yin, 2009), demand careful consideration from the researcher to determine if a single case suffices to illustrate the phenomenon, or if multiple cases are necessary to offer a comprehensive understanding of the problem. In line with the goal of developing a context-sensitive, evidence-informed TPD model, it was deemed that a single case would not suffice. Therefore, a multiple-case study design was chosen for this research. This approach allows for the exploration of different perspectives on the problem under investigation (Stake, 1995) and enables the identification of relational or causal patterns across cases (Miles et al., 2020). Moreover, having data from diverse cases

enhances the robustness of interpretations and strengthens the credibility of the study's findings (Yin, 2009; Saldaña, 2014; Merriam and Tisdell, 2016; Miles et al., 2020). Additionally, the use of multiple-case study design enhances the validity and reliability of the research by providing a range of experiences and perspectives (Merriam, 2009).

Furthermore, (Yin, 2018) suggests that employing multiple cases allows for the replication strategy, whereby a finding may be applicable in another comparable setting but not necessarily in a contrasting context. Although generalisation is not the study's primary goal, and it is difficult to achieve, the use of several cases contributed to the creation of a TPD model that can be used as a guide in other similar contexts. The many scenarios allowed the researcher to analyse how specific properties perform or fail in predictable ways in a range of contexts (Miles et al., 2020).

One of the challenges of conducting a qualitative multiple-case study design is that the researcher must identify the cases. Careful case selection maximises what we can learn, leads to better understandings, assertions, and possibly even modification of generalisations (Stake, 1995). In the next section, we will look at how the cases were chosen and how the study's participants were identified.

3.4 Sampling

Each school was considered a bounded system comprising the interplay between the school leadership team, the teachers, and the context in which TPD programmes are planned and implemented. The researcher selected four case schools, utilising a multiple-case study design wherein each school's leadership team and teachers formed a distinct case.

This section discusses the process of selecting the case schools and participants. "Two-tier" sampling (Merriam and Tisdell, 2016) was used to finalise the choice of case schools and participants for the study.

3.4.1 Stage 1: Selecting case schools

Purposeful sampling was used for this study. The schools and the participants were purposely selected because they were information-rich towards the

understanding of the research problem and the central phenomenon of the study (Creswell, 2018). Purposeful sampling is a collective umbrella term for at least 15 purposeful sampling strategies as identified by Patton, or 16 (Miles and Huberman, 1994), each of which serves a particular purpose in a qualitative study (Gall et al., 2003). Deciding on which sampling strategies to use to help identify the cases and the participants is critical in qualitative case study research because the small numbers of participants need to be information-rich in terms of the study's goals (Gall et al., 2003). Thus, the researcher needs to select from a sample from which she can most learn about the phenomenon being studied (Merriam, 2009).

Sabah was selected among 16 states and territories in Malaysia due to the study's focus on gaining a deeper understanding of the challenges encountered by school leaders and teachers in implementing educational reforms aimed at improving student outcomes through TPD initiatives. In addition, Sabah is the state within which the researcher lives and works, and about which she is most familiar. For this study, the researcher decided to focus on secondary schools for they present more challenging and complex issues when planning and implementing school- based TPD. Secondary schools are bigger, have more subject-based departments and are involved in more government programmes (e.g. exam-related district performance dialogues and courses) than primary schools. There are several different school types at secondary level in Malaysia – namely national schools, Chinese middle schools, private schools, and international schools. The national secondary schools are further divided into three streams: academic (arts or science stream); technical and vocational (technical, vocational or skills training stream); and Islamic religious stream for upper secondary students (16 – 17 years old).

To secure the feasibility of this study, the research was confined to national secondary schools in Sabah, Malaysia, but excluded four technical and vocational, and 10 Islamic religious schools. Furthermore, two national secondary schools that are boarding schools were also excluded from the study since their students' profiles differ from those of other national secondary schools. These two boarding schools select their students based on their Primary School Achievement Test performance or *Ujian Penilaian Sekolah Rendah* (UPSR),

a national examination taken by all students in Malaysia at the end of their sixth year in primary school before they leave for secondary education. Although the UPSR tests were phased out in 2021 and replaced with school-based assessments, the two schools continue to choose students based on their performance on the boarding school admission exam.

The choice of confining the study to national secondary schools in the academic stream was to ensure that the participants were from similar systems, and the teachers were working towards enhancing student performance for the *Sijil Pelajaran Malaysia* (SPM), or the Malaysian Certificate of Education, a national examination taken by the fifth-form national secondary schools' students in the academic stream in Malaysia. SPM is the equivalent of the General Certificate of Secondary Education (GCSE) or the Scottish Qualification Certificate (SQC) in the United Kingdom. Unlike national secondary schools in the academic stream, the other different types of schools offer distinct accreditation schemes and their examinations and/or processes differ from the former. Thus, the decision to conduct qualitative multiple-case studies in Sabah national secondary schools was justified to address the RQs and SRQs of the study.

Sampling decisions are crucial, emphasising the need for careful selection of cases that align with the RQs and SRQs, as well as providing diversity across contexts, to effectively capture the complexity of the phenomenon under study (Stake, 2006). For this, the researcher used criterion sampling to identify the potential bounded system. Criterion sampling involves the selection of all cases that meet some criterion (Miles and Huberman, 1994) which is particularly important for case study design. Stake (2006, p.23) highlights that a multiplecase study often starts with determining "the concept or idea that bind the cases together." For this study, the main criterion for selecting the case schools was that they need to be involved in implementing at least one of the ministrymandated whole school transformation programmes, with one of the key focuses being structured school-based TPD. These special programmes include Transformation Schools 2025 (TS25) and Trust School Programme (TSP). TS25 and TSP aim to build the capacity of SSLTs and MLTs to plan and transform schools focusing on creating a conducive learning environment for students and teachers. Both programmes comprise a combination of cascade model training, and on-site C&M to build schools' capacity to manage and implement school-

based TPD and overall school improvement effort, aligning with the national reform agenda. As a result, the schools participating in these special programmes have undergone both external and internal TPD as part of their efforts to improve their schools. Thus, they were the ideal candidates to offer valuable information about aspects of TPD that work well or poorly (Gall et al, 2003).

Secondly, the selected schools need to be at least two years in the programme because the first year is generally the training phase which include a series of cascaded training modules, followed by C&M by external experts. By the end of the second year, the schools are presumed to have ample opportunities to engage in planning and implementing the modules cascaded to them and these experiences are invaluable for the researcher. Using criterion sampling strategy, the researcher then streamlined the choices further (Table 3.1).

Table 3.1: Breakdown of national secondary schools in Sabah according to special programmes in 2022

Programme	No. of secondary schools (Inc. religious, vocational streams)	At least 2 years in the programme (Inc. religious, vocational streams)	Total no. of national academic secondary schools eligible for selection
TS25	206	190	174
TSP	2	2	1
Total	208	192	175

Hence, from 222 national secondary schools in Sabah, only 208 schools were involved in either TS25 or TSP programmes, up until 2022. Considering the criterion of a minimum of two years' participation, 192 schools remained eligible. After excluding Islamic religious, vocational and technical, and boarding schools, the total reduced to 175. Case schools were selected from the TS25 group, given its broader coverage and imminent nationwide implementation by 2023. In contrast, the TSP programme, involving only five schools in Sabah, is a public-private partnership with distinct characteristics from TS25 in terms of external expertise, monitoring, and funding. Given that the TS25 programme was fully funded and monitored by the government, selecting schools from this group was justified.

The strategy adopted was maximum variation sampling, which involves defining distinguishing characteristics ahead of time and selecting cases that significantly differ on these criteria (Creswell, 2018). This strategy enables highlighting the range of variance in the phenomenon under examination and capturing the breadth of project diversity, thus identifying common themes, patterns, or outcomes (Gall et al., 2003). Specifically, four schools at varying levels of performance were selected (Table 3.2) to gain an in-depth understanding of the complex TPD phenomenon experienced by participants. These performance levels were determined based on the primary goals of TS25: achieving school quality and enhancing student outcomes. Case schools were identified with the assistance of personnel from the SED and the four DEOs in which the four schools are located. These case schools are labelled as school A, B, C and D respectively for subsequent discussions in this thesis. Table 3.2 summarises the characteristics of the case schools.

Table 3.2: Case schools' characteristics

Cases	Characteristics	Demographics	Aspects
School A	• Moderate performance in both aspects • Double-session schooling schedule	Rural	Aspect 1: Student outcomes (academic and extra-curricular activities) Aspect 2: School Quality (Teachers' achievement, programme recognition, school awards etc.)
School B	• Consistently low performing for both aspects • Double-session schooling schedule	Rural	
School C	• Consistently high performing in both aspects • Double-session schooling schedule	Urban	
School D	• Moderate performance for Aspect 1 • High performance for Aspect 2 • Single-session schooling schedule	Urban	

Given the researcher's restricted time and resources, the decision to focus on four case schools with varying levels of performance in terms of student outcomes and school quality, within a diverse context, seemed appropriate for the current study. These four case schools offered diverse perspectives and experiences in TPD engagement within the context of educational reforms in Sabah.

3.4.2 Stage 2: Sampling within each case school

For this study, participants within each case school were selected using criterion sampling based on their positions held in the school (Table 3.3). Maximum variation sampling strategy was also employed to ensure diverse perceptions and experiences were captured. Participants were chosen according to their roles in TPD engagement, including teachers, principals, senior assistants, and middle leaders, providing insight into various aspects of TPD. Teachers can contribute rich knowledge in participating in TPD activities, while school leaders, senior assistants, and middle leaders provide insights into their roles in leading, managing, monitoring, and participating in TPD. Further participant details are available in Chapter 4.

Table 3.3: Interview participants

Data Collection Methods	Criterion	School				Total
		A	B	C	D	
Individual semi-structured interviews	Principal	1	1	1	1	4
	Senior Assistant 1 (Curriculum Affairs)	1	1	1	1	4
Focus Group 1	Middle leaders & teachers	6	8	4	6	24
Focus Group 2	Middle leaders & teachers	4	5	4	6	19
Total		12	15	19	14	51

In each case school, two focus groups were conducted with the number not exceeding 10 in each session (Table 3.3). In view of the limited resources available to the researcher, she kept the number manageable to ensure that the data gathered can adequately provide an in-depth perspective of their engagement in school-based TPD processes. The researcher decided to integrate the usage of both individual semi-structured interviews and focus group (FG) interviews which will be discussed in subsequent sections. Overall, four sessions of semi-structured interviews, comprising two individuals and two focus groups, were conducted for each case school. Overall, 51 school leaders and teachers were interviewed.

Additionally, snowball sampling was used to find other qualified interviewees by enlisting the help of well-placed people to suggest or nominate participants (Gall et al., 2003). Rather than relying solely on the principal's list, which may result in a biased selection, it is preferable to request nominations from other participants. With the help of the senior assistant 1 and the middle leaders of each school, the FG's participants were recruited. Snowball sampling was appropriate as the researcher did not know participants who were likely to be information-rich and, at the same time, the danger of bias selection was avoided.

Theoretical or concept sampling (Creswell, 2012), was another purposeful sampling strategy used to select participants for this study in order for the researcher to better understand how a particular construct manifests in real-world situations and ultimately contributes to the development of a model or theory. The researcher had the option to collect additional data to elaborate on or challenge the categories that emerged during the data collection process. Furthermore, she deliberately sought appropriate samples to enhance her understanding of specific constructs or categories (Corbin and Strauss, 2015). In this study, she specifically requested informal conversations with TPD coordinators from each school to gain deeper insights into the planning and implementation of school-based TPD. The gathered information was obtained through field observations, supplemented by the examination of documents related to TPD provided by the coordinators.

3.5 Data collection

Multiple sources of data gathering methods were used to develop an in-depth understanding of each case school and address the RQs of this study. The multiple sources of data collection are necessary for triangulation and to enhance the trustworthiness of the study. The data was gathered in an iterative process involving a continuous interplay between data collection and data analysis that facilitated the development of a theory and model (Corbin and Strauss, 2015).

The data gathering methods for this study included interviews, observations, and documentary and audio-visual analysis over a period of two weeks in each case

school. The following section elaborates on the chosen data gathering methods for this study.

3.5.1 Interviews

The main method of data collection in this study was a semi-structured interview, either individual or in groups. Interviews are regarded as one of the most important sources of data for qualitative research. The researcher asks "one or more participants general, open-ended questions and records their answers" in a qualitative research interview (Creswell, 2012, p.217). Participants can share their experiences without being influenced by the researcher or previous research findings when open-ended questions are asked. The interviews were audiotaped by the researcher, who then transcribed the data into words for analysis. The participants were offered the flexibility to choose between English or Malay for their interviews, ensuring they could comfortably convey their genuine responses in their preferred language.

Semi-structured interviews were selected for their ability to maintain consistency in key concepts used in the study, while allowing flexibility for relevant points (Corbin and Strauss, 2015, p. 39).

Individual semi-structured interviews

The researcher conducted individual interviews with the school principal and senior assistant 1 (for curriculum affairs) for each case school. The two individuals make up the SSLT in the school and are responsible for leading and managing the TPD initiatives. This approach aimed to glean their experiences in leading TPD and their perspectives on effective TPD models for their schools, as they are central to the phenomenon under study.

Focus group interviews

To understand the experiences and perspectives of MLT and teachers in engaging in TPD, the researcher conducted FG interviews with both groups in each session. FG interviews involve simultaneous data gathering from multiple participants (Braun and Clarke, 2013). FG interviews were chosen for this study

because of their benefits in stimulating participants to express their feelings, perceptions, and beliefs that they may not be comfortable to share individually (Gall et al., 2003, p. 238). Each focus group consisted of 4 - 8 individuals carefully selected based on a combination of maximum variation, snowball and theoretical sampling strategies as discussed in the previous section. The procedures for conducting interviews are detailed below.
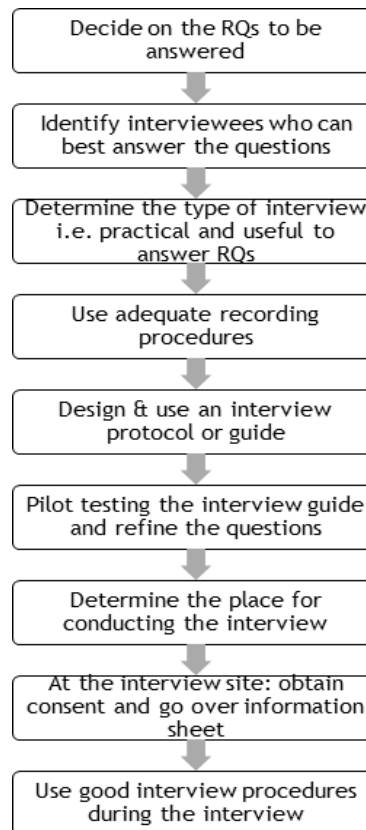
Figure 3.1: Interview procedures (adapted from Creswell, 2018, pp. 163 - 166)

During interviews, the researcher prioritised open-ended over leading questions to encourage participants to elaborate freely (Rubin and Rubin, 2012). Recognising participants as primary data sources, the researcher allowed them to guide discussions for richer insights. Preparing an interview protocol (Appendix D) and moderator guide (Appendix E) ensured relevant questions were asked. The researcher followed the process suggested by Vaughn et al.'s (1996) to create the moderator's guide for FG interviews (Figure 3.2).
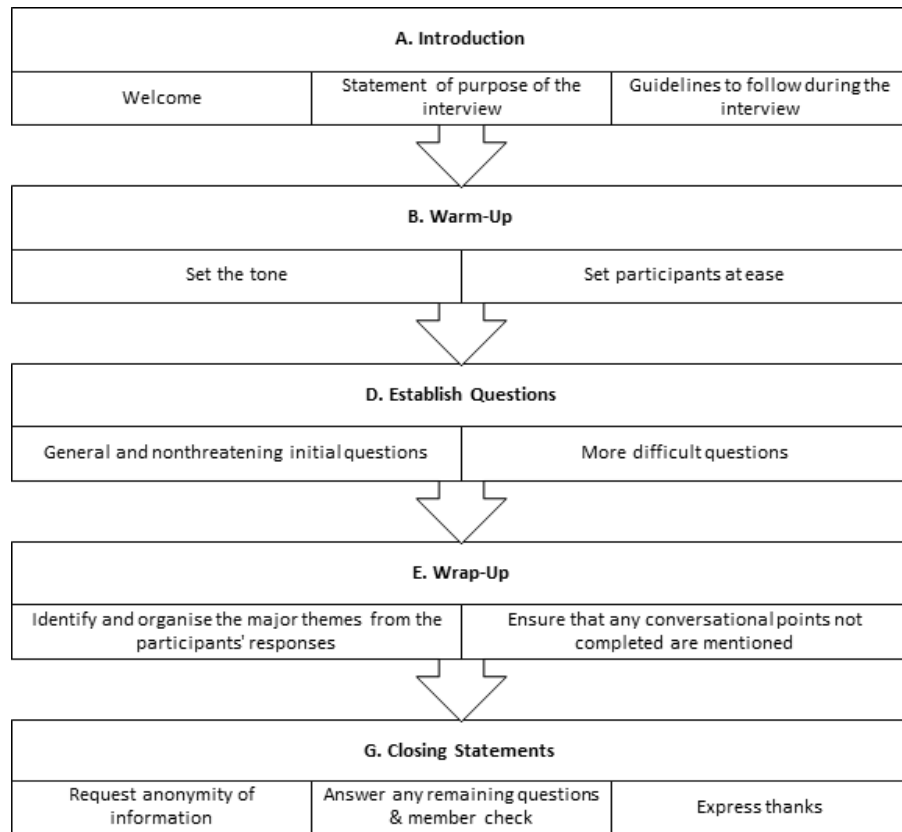
Figure 3.2: Overview of the sections in the moderator's guide (adapted from Vaughn et al., 1996, p. 43)

The sections in Figure 3.2 served as a roadmap for FG interviews, guiding discussions from start to finish. The researcher conducted a pilot test of the interview questions and moderator's guide with two principals, two middle leaders, and two teachers before data collection to refine and develop relevant lines of questioning for the interview and ensure that relevant data was captured to address the RQs.

The study involved both teacher and school leader stakeholders with possibly different perspectives, thereby requiring a multi-perspective approach to data collection for a deeper understanding of TPD scenarios in the case schools in Sabah. After careful consideration of the kind of information required and the cultural background of Malaysia's hierarchical system, it was decided to hold focus groups with teachers and individual interviews with senior school leaders. The literature review points out the significance of school leaders in shaping the organisational context and culture. Furthermore, senior school leaders are in a unique position to provide strategic insights into the direction and operations of their schools due to their experience and higher-level decision-making responsibilities. Therefore, individual interviews were considered the most

effective way to record their unique perspectives because they allow for an indepth exploration of their knowledge and any opposing viewpoints that could support or hinder successful TPD processes and educational reform implementation in their respective schools.

Additionally, in Malaysia's hierarchical context, combining leaders and teachers in a focus group might create an awkward situation where teachers might feel reluctant to disagree with their leaders. Teachers, who implement policies daily, offer valuable insights into practical challenges and real-world implications at classroom implementation level. Being an insider to the system, the researcher understood that most teachers in Sabah are not accustomed to openly discussing their individual experiences in formal settings. Focus groups were consequently adopted to encourage them to share more freely, providing and receiving support and assurance from their peers, while capturing their collective experiences without the influence of senior leaders' presence. Focus groups also allowed the researcher to include more teachers in the sample – an important aspect when time and resources are limited. These gains were considered more important than any possible limitations, such as teachers being unduly affected in their views by peer pressure.

3.5.2 Non-participatory observations

Observation, defined as systematically recording events using the observer's senses (Angrosino, 2007), was integral to this study's data collection as a secondary method to supplement data from interviews. Observations provided contextual evidence, allowing the researcher to verify and expand upon the information obtained through interviews. This was particularly valuable when participants had difficulty articulating their experiences, as the observations offered tangible examples and details that enriched the overall understanding of the cases and provided content for discussion during interviews. Moreover, the observations enabled the researcher to identify discrepancies between what participants reported in interviews and what was actually observed in practice (Corbin and Strauss, 2015).

To gain richer insights into the experiences of teachers and school leaders engaging in TPD, the researcher conducted a two-week observation period in

each case study school. The aim was to observe TPD activities and engage in natural conversations with teachers during their free time. The researcher employed non-participatory observations when observing TPD activities, recording detailed field notes without direct involvement, to offer a comprehensive description of the cases (Creswell, 2018). The observation process involved the researcher attending various TPD activities, such as workshops, training sessions, and informal meetings, while maintaining a passive role to minimise disruption. During these activities, the researcher meticulously documented the interactions, behaviours, and practices observed. Throughout the two-week observation period, the researcher recorded both descriptive and reflective field notes (Appendix F and G) on TPD activities and interactions within the schools. Given the exploratory nature of the study, the researcher opted for minimal prior instrumentation for observation protocols, remaining open to the contextual possibilities and emerging themes (Miles et al., 2020).

This immersive and flexible approach allowed the researcher to capture nuances and complexities that might have been overlooked or difficult to discern through interviews alone. Additionally, during teachers' free time, the researcher initiated natural conversations, allowing for spontaneous insights and reflections from the participants. This observation method provided an emic perspective, immersing the researcher in the daily activities and conversations, thereby gaining a deeper understanding of the context as well as participants' experiences. The insights gained from these observations significantly influenced the case studies. They provided a rich and multifaceted understanding of the research setting, contributing to a more holistic portrayal of the participants' experiences. The detailed field notes and natural conversations helped to triangulate the data, enhancing the credibility and depth of the findings.

Consequently, the observations played a pivotal role in shaping the case studies, ensuring they were grounded in the lived realities of the participants. By integrating these observational data with the insights gleaned from the interviews, the researcher was able to construct a more holistic and wellrounded understanding of the case studies, ultimately strengthening the trustworthiness of the findings.

3.5.3 Documentary and audio-visual analysis

Documents are considered valuable sources of information in qualitative research, encompassing various written materials and records related to the studied phenomenon (Patton, 2015, pp. 72–73). For this study, document and audio-visual analysis served as supplementary sources of data to complement interviews, enhancing data quality and providing deeper insights into the research issue. Documents such as TPD attendance records, schedules, and online management system printouts were analysed to understand the process of TPD planning and implementation at both organisational and individual teacher levels. Additionally, audio-visual materials, including photographs and videos, were analysed to provide comprehensive data relatable to participants (Creswell, 2012, p. 224). However, selecting and analysing images posed challenges due to their richness and complexity (Creswell, 2012). Therefore, only materials directly linked to documented TPD activities were chosen. However, due to confidentiality, the schools did not give consent to sharing it as an appendix for this thesis.

3.6 Data analysis

This study adopted an inductive approach for data analysis, which occurred concurrently with data collection (Miles et al., 2020). Consequently, the researcher analysed data as it was collected, allowing for the refinement of data collection strategies and the generation of new insights (Miles et al., 2020, p.62). Data analysis comprised two stages: within-case analysis and cross-case analysis (Creswell, 2018).

3.6.1 Stage 1: Within-case analysis

The present study employed within-case analysis to comprehend participants' unique experiences influenced by their contexts before investigating the phenomenon (Stake, 2006). Initially, transcripts for each interview session were prepared, along with managing field notes from surveys, observations, and all documentary and audio-visual materials. Subsequently, all transcripts were typed and field notes were organised for easy reference. Data analysis utilised a combination of Reflexive Thematic Analysis (RTA) and Modified Analytic Induction (MAI).

The data analysis process for the within-case analysis in this study followed six-phase Reflexive Thematic Analysis (RTA) (Braun and Clarke, 2021), as depicted in Figure 3.3. RTA is distinguished by its emphasis on the researcher's subjectivity and reflexivity, and aligns with interpretivism and an inductive, data-driven approach to coding. The researcher found RTA suitable for the study's theoretical and paradigmatic assumptions, as it allowed for the collection and analysis of qualitative data while respecting participants' subjectivity and embracing the researcher's reflexive interpretations. Although the six phases are in order and each one builds on the one before it (Figure 3.3), analysis was a recursive process that involved switching back and forth between them. These phases served as guides for the analysis, allowing for thorough data interrogation and engagement.
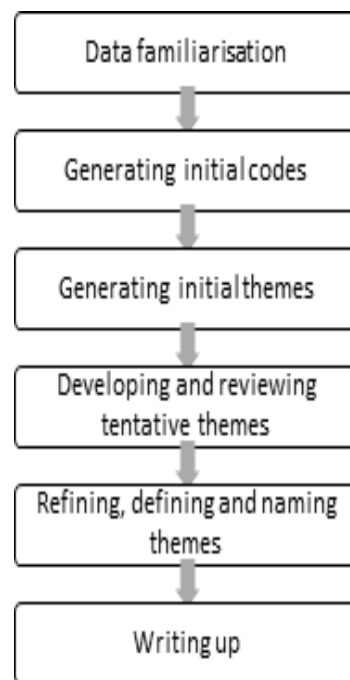
Figure 3.3: Six-phase process of Reflexive Thematic Analysis (adapted from Braun and Clarke, 2021)

The researcher thoroughly immersed herself in the dataset through transcription, repeated reading of transcripts and fieldnotes, and listening to audio recordings. This data familiarisation process involved active, critical, and analytical thinking about the meanings of words or images. Phase one was pivotal for developing analytical sensibility in identifying patterns of meaning relevant to the study's RQs. The researcher made systematic familiarisation notes to capture potential patterns and questions for the coding phase (Appendix H).

Coding involves identifying meaningful segments in the data to address the study's research questions (Braun and Clarke, 2021). These segments are assigned researcher-generated codes, reflecting the identified meaning (Saldaña, 2021). Given the study's focus on understanding the phenomenon through participants' perspectives, coding was conducted inductively, starting from the datasets (Braun and Clarke, 2021). RTA facilitated coding at different levels, from explicit to implicit, allowing the researcher to investigate underlying ideas and conceptualisations (Braun and Clarke, 2021). Researcher-derived codes supported the study's aim of developing an evidence-based TPD model.

The researcher initially identified all relevant segments of the dataset, then refined and analysed them further in subsequent cycles (Braun and Clarke, 2021). While most of the coding was done manually (Appendix I), NVIVO, a qualitative data analysis software, was also utilised to aid the initial coding process. To track the evolution of codes and coding labels, as well as gain new insights into the dataset, the researcher conducted multiple rounds of coding alongside active analytic memo writing (Saldaña, 2021). With the majority of interviews conducted in Malay (12 out of 14), the researcher embarked on a comprehensive three-cycle coding process. Initially, coding was carried out in Malay to reflect the language used during the interviews. Subsequently, the dataset underwent a second cycle of coding in English. Finally, the third cycle focused on refining and fine-tuning the English codes for clarity and precision.

In subsequent phases, the researcher identified provisional themes or 'central organising concepts' (Braun and Clarke, 2021) from the data inductively, aligning them with the data collection questions. The researcher concurs with Braun and Clarke (2021) that themes are not passive outcomes of data or coding; rather, they emerge from the intersection of theoretical assumptions, analytic resources, skill, and the data itself, resulting in active and generative analysis.

After using RTA for initial data collection and analysis in each case, the researcher utilised the MAI approach to iteratively develop theoretical propositions. MAI involves concurrent data collection and analysis, allowing for the provisional development of a model from the outset (Bogdan and Biklen, 1992). Figure 3.4 describes the steps in the MAI approach.
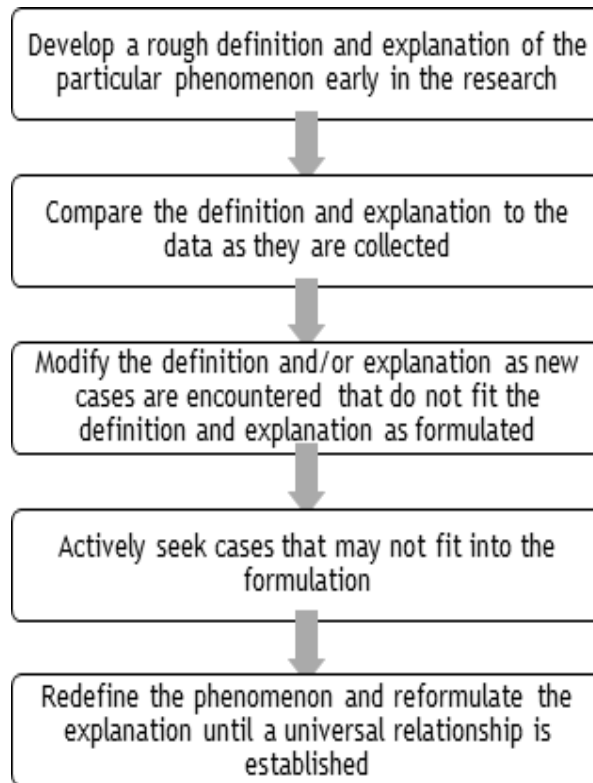
Figure 3.4: Steps to Modified Analytic Induction (adapted from Robinson, 1951 in Bogdan and Biklen, 1992, p. 72)

The MAI approach involved identifying key concepts and patterns within each case, leading to the formulation of propositions specific to each context. As the analysis progressed through the fourth case, a transition to cross-case analysis occurred, where the researcher systematically compared the propositions across cases. Through this comparative process, similarities and differences in the propositions were identified, facilitating the clustering of related propositions into thematic categories. These thematic categories formed the foundation for constructing a context-sensitive TPD model.

3.6.2 Stage 2: Cross-case analysis and model building

Cross-case analysis extends the findings of within-case studies, applying their situated experiences to the study's RQs (Stake, 2006). It aims to understand both similarities and differences across cases while considering unique contexts (Stake, 2006). This research aims to understand TPD and leadership for TPD in educational reform environments across diverse settings, drawing from participants' experiences and perspectives, rather than offering isolated case studies for broad generalisations.

Following the MAI approach, the researcher integrated new data dimensions from subsequent interviews and observations, modifying the provisional model or RQs as needed based on data from multiple cases until project completion (Figure 3.5).
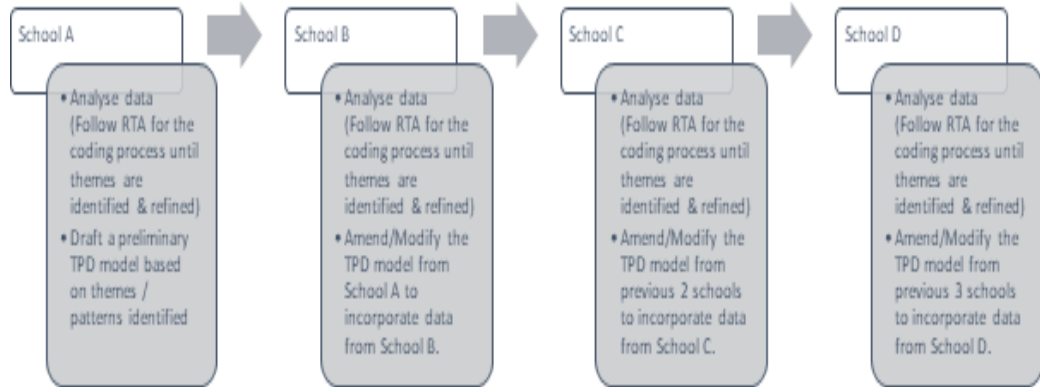
Figure 3.5: Overview of the data collection and analysis process for the whole study

The researcher developed the TPD model based on evidence from all four case schools, iteratively revisiting the dataset for evolving interpretations and patterns. Utilising Stake's (2006) multiple-case study analysis, the researcher adopted the step-by-step approach to cluster propositions. These propositions, generated from within-case analysis, were sorted, clustered, and rated to develop assertions (Figure 3.6), informing the emerging evidence-based TPD model in Chapter 9.
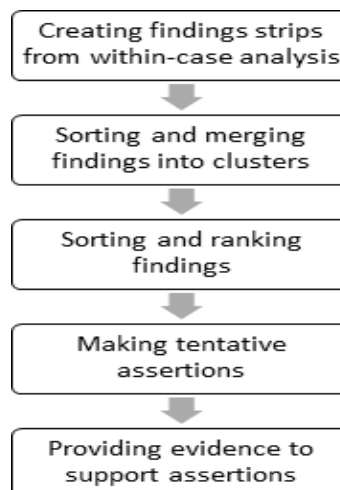
Figure 3.6: Merging case findings (adapted from Stake, 2006)

3.7 Trustworthiness

Lincoln and Guba (1985) claim that in a qualitative study, the quality of the research findings is subjected to the concept of trustworthiness, that is, whether the findings are worth the confidence of the audiences. Trustworthiness is utmost importance as the interpretive nature of qualitative studies lets the researcher to be self-reflective and may draw from personal life experiences to shape the findings (Creswell, 2012). Lincoln and Guba (1985) further explain that to determine trustworthiness in a qualitative research, four elements are taken into considerations – credibility, transferability, dependability, and confirmability.

3.7.1 Credibility

This study's credibility was strengthened by collecting and triangulating data from various sources (Patton, 2002; Gibbs, 2007; Creswell, 2012). Triangulation involves verifying evidence from multiple sources to gain a deeper understanding of each case and across cases, ensuring accurate and credible findings (Creswell, 2018).

Another way to promote credibility is through prolonged engagement with the cases. The researcher spent two weeks in each case school collecting and analysing data for this study and continued to be engaged with the data through cross-case analysis. In addition, the researcher used member checks procedures to increase credibility by asking participants to review and appraise interview transcripts, drafts of emergent concepts, categories, and themes in between interviews.

3.7.1.1 Triangulation

In seeking triangulation, the researcher utilised a combination of data collection methods, namely, focus groups, individual interviews, observations, and document analysis to provide a comprehensive understanding of teachers' and leaders' perceptions and experiences of TPD within a context of system educational reforms. By doing so, this thesis took the advantages of methods and evidence triangulation and complementarity, and thus added rigour, richness and depth to the finding. Each data strand was weighted based on its relevance and richness, with individual and focus group interviews being the primary sources

due to their depth and direct insights. Focus groups were relied on to provide collective perspectives of teachers on TPD, while individual interviews sought to capture insights into leading and managing TPD. Other data collection methods served as complementary sources. Observations added contextual evidence and validated reported behaviours by capturing real-time interactions. Documentary and audio-visual analysis, including official documents, training materials, and video recordings, provided additional context and confirmed other data sources. However, due to confidentiality agreements, the schools did not give consent to the researcher to disclose the sources obtained through document and audio-visual methods in this thesis. This complementarity increased the scope, depth and consistency of the results as well as it provided the researcher with a more nuanced understanding of the results. In this way, a holistic representation of the concept of TPD and its practices was achieved.

Analytic procedures

The researcher first coded the interview transcripts, observational data, and document analysis independently to ensure each data source was carefully examined. After initial coding, the researcher matched codes from observations and documents to the primary data source—the interviews—and grouped related codes from different sources. This process yielded differences and similarities between various data strands, offering rich 'emic' and 'etic' perspectives to facilitate the identification of key considerations for a context-sensitive TPD model based on the relationships between the context and reform agents.

The researcher continuously reviewed each data source to generate, verify and refine the identified propositions and themes to facilitate the development of the TPD model in Chapter 9 (9.3 Section 2). This added rigour to the data analysis process, providing robust findings and presenting a balanced and nuanced account of TPD within the educational reform context. The researcher paid particular attention to discrepancies between data sources, analysing them to understand underlying reasons and provide a comprehensive interpretation of the findings. To illustrate, consider the data on the implementation of action research (AR) in School C (see Chapter 7, p.171). Despite the principal's assertion that participation is voluntary, an analysis of documents and informal

interactions with teachers reveals that specific individuals have been assigned by the principal to conduct AR each year. This discrepancy led the researcher to interpret that the principal's directives significantly influence teacher participation in AR, solidifying the significance of the principal's role in leading TPD in School C. It suggests that without such directives, teachers might not actively engage in AR activities.

Throughout the analysis, the researcher refined the themes and validated them against the data. This iterative process ensured that the final themes were robust and accurately represented the participants' experiences. As triangulation was conducted at both within-case and cross-case analysis stages of analysis in which common themes were identified, the researcher ensured that the findings were trustworthy and insightful.

3.7.2 Transferability

The findings of this study were unique to each case school, as the data was specific to the participants' environments. Therefore, it was challenging to ascertain the transferability of these findings to other contexts, settings, and populations (Lincoln and Guba, 1985). However, the selected schools shared some similarities, such as their two-year involvement in a government-mandated TPD programme. Additionally, being based in Sabah, where national schools exhibit similarities (Dimmock, 2012), increases the likelihood of transferability.

Despite these similarities, differences existed among the schools. To enhance transferability, the researcher provided detailed descriptions of the phenomenon and comprehensive accounts of the findings.

3.7.3 Dependability

Dependability is the assurance that the findings are consistent and can be repeated or reproduced (Lincoln and Guba, 1985). The researcher tape-recorded interviews for accurate documentation (Creswell, 2012), produced verbatim transcripts of the interviews (Appendix J), and maintained a research journal for recording reflections (Appendix K). In addition, the researcher employed snowball sampling to mitigate bias, and conducted pilot testing to refine

interview questions (Creswell, 2018), ensuring relevant data for answering the RQs.

3.7.4 Confirmability

In line with Guba and Lincoln's <u>(1989)</u> recommendation, this study ensured confirmability through 'member checking', where participants reviewed and verified the accuracy of findings derived from their data, aligning researcher interpretations with participant experiences. Member checking was conducted twice for each school. The first session was conducted after the initial analysis of each interview transcript. Since data collection was conducted concurrently with analysis, the researcher was able to do member checking before she left the school. The second session was conducted after the third cycle of analysis in which codes were generated. Participants were contacted via 'WhatsApp' application to get their responses.

Besides member checking, triangulation further strengthened confirmability by utilising multiple data sources or methods to examine the same phenomenon.

3.8 Ethical considerations

Recognising the importance of ethics in research, the researcher considered various ethical considerations when designing this study. These include concerns like data misunderstanding and misrepresentation, as well as issues like access and acceptance, informed consents, privacy and confidentiality. This section details the actions taken to guarantee that the research process was ethical.

3.8.1 Gaining access and acceptance

Qualitative research requires the researcher to study a research site or sites and thus, obtaining permission to investigate them in a manner that allows for easy data collecting is essential (Creswell, 2018). To gain access to the schools, the researcher went through several hierarchical management for approval and support. First, the researcher obtained permission from the Malaysia's Economic Planning Unit (EPU) to conduct research physically in Sabah. Second, the researcher gained approval from the Sabah SED for permission and support to

conduct the research in selected schools. Third, relevant information regarding the study was forwarded to the respective DEOs who then forwarded it to the case schools selected. The information sheet was prepared following the guidelines given by the University's Ethics Committee.

The researcher then initiated contact with school principals to introduce the study's purpose and outline the required assistance. Upon gaining access, participants provided written informed consent using a form adhering to the University's Ethics Committee guidelines (Appendix L). Clear explanations were given regarding the study's objectives and procedures, allowing participants to make informed decisions about participation. Additionally, participants were verbally briefed on the commitment involved in data collection and assured of their right to withdraw at any stage.

3.8.2 Privacy and confidentiality

Harding (2013) states that privacy, confidentiality and anonymity of the participants and findings should be respected. To protect participants' right to privacy, confidentiality was maintained throughout the research process. First, the researcher concealed the identities of all the schools and participants by using pseudonyms on all data files and documents. All data was first coded and then stored to the researcher's personal password-locked, firewall-protected laptop; the code sheet identifying participants and their school sites was kept separate from the data and stored in a locked drawer in the researcher's personal office. All identifying documents including, but not limited to audio recordings were to be destroyed upon completion of the study.

It is critical for the researcher to gather only information relevant to the phenomenon under study in order to respect the privacy of the participants. In terms of confidentiality, an agreement between the researcher and the participants on how the data will be used and who will have access to it is crucial. The researcher gave assurances that the data will not be exposed to unauthorised people and to guarantee that the data will be stored safely. Gibbs (2007) also states that friends and colleagues of the researcher should not be able to view or have access to them unless permitted by the participants.

While the researcher inevitably impacts the environments that she studied, the researcher kept any negative effects at a minimum. The researcher also considered how various aspects of the study, such as its purpose, data collection methods, analysis, and data presentation, might affect the portrayal of individuals or communities.

3.8.3 Misunderstanding and misrepresentation

Through the use of interviews and member checks, the researcher provided a small sample of Sabah school leaders and teachers the opportunity to explain their experiences for themselves—providing them a sense of agency and an outlet to voice their concerns. Moreover, the researcher minimised bias by investigating schools in several districts, not including the one in which she has worked before, providing distance between the research study and the researcher.

In order to promote ethics further, member checks were employed to ensure that interpretations made by the researcher are plausible. Above all, the researcher kept the participants' best interests in mind and credited them for their time, effort, and input.

3.8.4 Power dynamics

The researcher was aware of potential power dynamics between herself and the study participants, given her experience of working with teachers in local Sabah schools as a district education officer, responsible for working with them to implement policy initiatives by supporting their PD. Managing the ethical landscape of this study is crucial because participants may be reluctant to be completely honest about their experiences and viewpoints for fear of negative consequences or harm to their working relationship with the researcher. They may also feel pressured to participate due to the researcher's prior position. The researcher was mindful of the different kinds of biases that might result from prior professional experience and connections with educators and system leaders. Throughout the whole research process, it was crucial to maximise rigour and recognise and minimise bias whenever it is manifested.

To address this power dynamic and ensure that participants felt free to share their authentic experiences without restriction, the researcher purposefully selected districts and schools with which she had never previously collaborated. This sampling strategy was carefully orchestrated to avoid potential power dynamics and to provide a safe space for participants to express their honest perspectives and experiences of engaging in TPD.

3.9 Researcher positioning

The researcher was aware of her position as an 'Insider researcher', taking account of the familiarity with the context and the researcher's situatedness (Costley et al., 2010). The advantage of being an 'insider' was the level of familiarity to better understand the context of professionals in Sabah schools. As an insider, consistent with Mercer's (2006) assertion, access was granted more easily, and rapport with participants were easily established.

However, insider research poses a dilemma in terms of the researcher's own ethics and perspectives. The biggest challenge was to maintain as much neutrality and objectivity as possible by avoiding bias (Costley et al., 2010), and to avoid taking things for granted or making assumptions due to being too familiar with the context (Mercer, 2006). There might also be a tendency for some participants to report perspectives which they think the insider researcher would expect or like. However, the researcher feels being an insider gave her more benefits than disbenefits and made every effort to maintain a high level of reflexivity throughout the data collection and analysis process.

As recommended by Corbin and Strauss (2015), addressing the intrusion of perspectives, biases, and assumptions involves two key strategies. Firstly, the researcher maintains a research journal to cultivate self-awareness. Secondly, the researcher utilises RTA and triangulation to determine possible meanings – both of which were carried out by the researcher.

3.10 Limitations

This study does not assume to capture or represents the perspectives of all schools in Sabah on the phenomenon investigated, let alone other Malaysian

states, and beyond. Only four case schools were selected from 222 secondary schools in Sabah, thus making generalisation and transferability of findings somewhat limited.

While it is acknowledged that generalising from qualitative research is difficult, it is still possible that some of the findings from this study can be applied to other situations of a similar nature. One of the study's goals was to develop a TPD model that explains and captures the processes and practices of the phenomenon under investigation. Readers may be able to draw parallels or see similarities and differences between themselves and the participants' situations – especially as the researcher has accepted her responsibility to provide as much in-depth school and contextual information as possible. Readers may thus be able to learn more about their own situations as a result of this and adopt some good practices that they deem appropriate.

3.11 Conclusion

This chapter presents the rationale for adopting the interpretivist paradigm, along with the justification for qualitative methods and the research design. The methodology outlines the approach to data collection, analysis, and reporting, employing RTA and MAI in combination with Stake's Cross-Case analysis to develop a model. Case schools and participants were selected through purposeful sampling, including criterion-based, maximum variation, snowball, and theoretical sampling strategies. To improve the study's trustworthiness, it relies on multiple sources of data to answer the RQs of the study.

The subsequent chapters provide an overview of the four case studies and their contexts, followed by a discussion of findings for each school, and points of comparison.

Chapter 4: Introduction to the four case studies

4.1 General introduction

This chapter provides the context to all four case studies. The succeeding chapters - Chapters 5 through 8, take each of the four case studies in turn. Each case study chapter comprises the presentation of the findings and analysis of data generated based on the four categories derived from SRQs as explained in section 4.2 of this chapter.

Four government secondary schools were chosen for this study. These case schools are labelled as schools A, B, C and D respectively for subsequent discussions in this thesis. Table 4.1 summarises the characteristics of the case schools.

Table 4.1: Case School Characteristics

Case	Performance	Category	Schooling system	TS25 Cohort
School A	Moderate performance in both academic and non-academic aspects	• Rural school • Fully funded by the government	Double session with Form 6	Cohort 5 (2020 – 2023)
School B	Consistently low performance in both academic and non-academic aspects	• Rural school • Fully funded by the government	Double session	Cohort 5 (2020 – 2023)
School C	Consistently high performance in both academic and non-academic aspects	• Urban school • Partially funded by the government	Double session	Cohort 5 (2020 – 2023)
School D	Moderate performance in academic, high performance in non-academic aspects	• Urban school • Fully funded by the government	Single session with Form 6	Cohort 4 (2019 – 2022)

As detailed in Chapter 3, the participants were chosen based on their roles and responsibilities in TPD engagement to provide a range of perspectives and experiences. The criterion used to guide the selection of interview participants was based on the leadership positions held in schools and their direct involvement with TS25 training modules. Figure 4.1 outlines the school level leadership structure with Form 6 or Pre-University students. There would only be three senior assistants in schools without the Form 6 students.
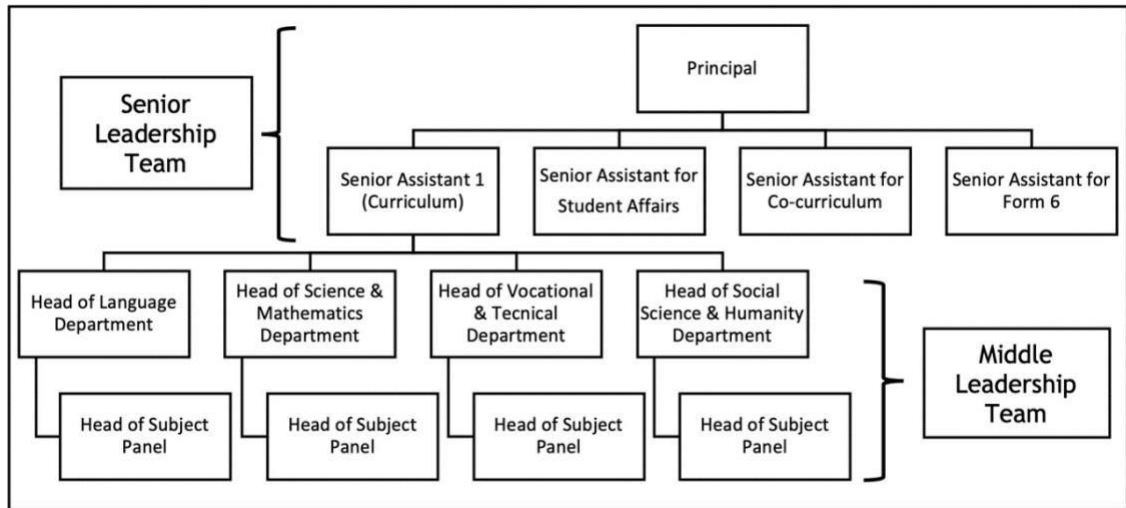
Figure 4.1: School-level leadership structure with Form 6

Middle leaders are divided into two positional roles: the head of department (HOD) and the Head of Subject Panel (HOP). All secondary schools have four HODs who lead each department that comprises several different subject panels. For example, a Language HOD would lead subjects such as Malay, English, Arabic, Chinese and Kadazandusun languages.

The subsequent section introduces the case schools, providing a brief information about the schools' demographics and logistics, principal, senior assistants, middle leaders and teacher profiles.

4.2 Introduction to the four case study schools

4.2.1 Case study 1 - School A

Demographics and logistics

School A is a co-educational government secondary school that provides education for students aged from 13 (Form 1) to 19 years (Form Six). It is categorised as a rural school and had only been in operation for 19 years when this study was conducted. Due to the shortage of classrooms, School A operated in two shifts, with upper secondary and the sixth form students attending the morning session and lower secondary in the afternoon. At the time of research, the school had an enrolment of 1424 students of whom 70% were Sabahan natives of Kadazandusun ethnicity. Most of the students came from families that own small and medium enterprises as well as rice farmers.

The school had 36 classrooms with a class size average of 42 students. Internet connection was available, however, according to the participants, the coverage did not spread to all school blocks. Hence, teachers had to take students to certain areas of the school to get connected or use their own internet data. The school is located in a village and is easily accessible by road.

The school was proud of its students' achievements in several extra co-curricular activities with various achievements at district, state, national and international events. In Malaysia, as well as in Sabah, the academic performance of a school is largely evaluated by how well its fifth-year students perform in the national exams. These students use their results to enter college or university or to start their careers. Over the years, School A's academic performance had gradually improved. However, it was still considered as one of the weaker academic schools in the district as its overall grade point score (GPS) was below the state level average at the time of this study.

The school was enrolled in the TS25 programme in 2020 with eight training modules completed over two years via online platform. However, the current principal and SA1 took over the leadership of school A right after Module 4 was completed. Both leaders came in for the training of Module 5 which only focuses on evaluating and reflecting on the previous modules and its implementation in schools.

The principal's profile

Simon has been a secondary school principal for 8 years and has led three secondary schools in nearby districts before taking over the leadership of School A in 2020. Prior to principalship, he was a dedicated teacher and SA1 at several schools for 24 years. He was awarded the title 'Excellent Principal' and is known for having a great passion in mentoring and collaborating with teachers for project-based learning (PBL), action research (AR), innovation projects and virtual learning environment (VLE) programmes. During his career, he received several awards, such as Teacher's Icon, Leader's Icon and is always looking for the opportunity to share his expertise and learn new skills. He was also involved in various programmes promoting 21st-century education practices and had

actively supported various educational projects and initiatives in Sabah, serving as a mentor, judge, and presenter at conferences and symposiums.

As an instructional leader, he believes that teachers need to continue improving their pedagogical capacity in order to deliver impactful teaching and learning. He promotes creativity and innovation among teachers and encourages them to find new practices to address different cohort of students every year.

The senior assistant 1 (SA1) profile

Anthea was working as an assistant DEO in charge of school matters before assuming the position of SA1 in School A. She felt that there were many things that she must learn in being an administrator in the school. She claimed that she was overwhelmed with the workload in school and was thinking of early retirement. Hence, PD was not something in which she was particularly interested at this time. However, for the sake of the interview, she shared that she needed to improve her managerial capacity and would want to improve on her knowledge and skills in finance and asset management.

The focus group participants' profile

There were 108 teachers working at School A at the point of the study, with a balance of young and experienced staff. The teachers in School A were a mix of some Malays, Indians, and Chinese (from West Malaysia) and a variety of ethnic backgrounds from Sabah and Sarawak (neighbouring state), with 37.9% of them being native Sabahans of the Kadazandusun ethnic group.

There was only one teacher with a postgraduate degree at the time the data was collected. The researcher notes that there were a small number of teachers who were actively involved with implementing and presenting AR and received several awards at the district, state, national and international level competitions. Beginning 2021, the principal mandated all teachers to implement at least one AR project and present it during the school level TPD hours.

For the FG interviews, participants were largely native Sabahans with more than 10 years of teaching experience. 9 out of 10 have taught in School A for more

than 10 years. Five began their teaching career in School A and have stayed. Table 4.2 below summarises the individual interview and FG participants from School A.

Table 4.2: Interview and FG participants of School A

Participants	Subject Taught	Years in service
Principal	History	32
SA1	Malay	31
HOD	Music	34
Teacher	English	21
Teacher	English	25
Teacher	History	12
HOD	Agriculture	18
Teacher	Computer Science	17
Teacher	Mathematics	16
Teacher	Science	15
Teacher	Malay & Business	16
Teacher	Mathematics	24

4.2.2 Case study 2 - School B

Demographics and logistics

School B is another co-educational government secondary school catering to students aged 13 to 17. This rural school had 1020 pupils at the time this study was conducted. The majority of its pupils were from the families of small-scale farmers and plantation workers in the palm oil industry. The students at School B came from a diverse range of racial and ethnic backgrounds.

In terms of infrastructure, the school had a student hostel, canteen and a hall built on a 30-acre land. The average class spatial size is 750 per square feet with an average of 37 students. However, similar to School A, School B also operated on a double session system due to the lack of classrooms. The principal claimed that the school lacks basic facilities, and they frequently experienced poor internet connectivity. They also experienced regular power disruptions which could last up to 5-8 hours at a time. Besides, the classrooms and staffroom were in dire state and in need of repair. When the school first opened, it had to share buildings with another secondary school in the district.

The school moved to the current school buildings just over 10 years ago, but due to vandalism and frequent power outages, the majority of the classrooms and toilet doors, as well as the power outlets, were damaged. In addition, the air conditioning in the teachers' room had not functioned for years. The principal had to seek the help of the local community and business owners for repairs and expenses. At the time of this study, the principal claimed that he managed to get funding for most of the repair work. He managed to fix the doors and the toilet problem, as well as the air conditioning for the staffroom. The school had a computer room with several desktops but not all were functioning. They also had laboratories but lacked equipment to carry out experiments and learning activities for science projects.

School B was considered a 'priority school to receive guidance' by the district coaches based on its struggling academic performance in Form 5 national exams. Being the focus of the district coaches, the school received more visits and dialogue sessions from and with the DEO officers. In a recent development, the school's performance which is measured by its GPS has slightly improved. The school GPS is calculated by multiplying each grade's value by the number of students who obtained it, adding up all the grades, and then dividing the sum by the total number of students enrolled in the school. The Malaysia's national Form 5 exam has a 9-grade point system with A+ as the highest score and F (Fail) as the lowest. A+ has a value of zero, while grade F is worth nine. The school GPS would be smaller if more students obtained higher grades. The result is better when the GPS is smaller. School B managed to lower their GPS by 0.48 by the time this study's data was collected. Although this is not much, the principal saw it as a motivation boost for all staff to work harder for the next examination. The school, however, won some awards and earned recognitions for their involvement in extra co-curricular activities and sporting events at district, state, national and even international level.

Formal training for the TS25 programme began at the school in 2020. Similar to School A, the current principal took over the school leadership rein after the fourth module was completed.

The principal's profile

Ahmed was appointed principal in 2020 and School B is his first principalship. Although he was just in his fourth year as a principal, he was in the education sector for 33 years and had spent a considerable number of years as an assistant district education officer for the Humanities Unit for several years, then went on to be the senior assistant for students' affairs in another school before taking up his position as a principal at School B.

In terms of being an instructional leader, he admitted that he still has a lot to learn, and he continuously gains knowledge from other senior principals and from the district coach, the SISC+ officer, Madam Laila, who regularly visited the school for C&M with his English teachers.

The senior assistant 1 (SA1) profile

Sani is one of the most senior staff of School B. He has been in the school throughout the 24 years of his service, starting as an academic teacher, rising to Language HOD and was promoted to SA1 eight years ago. He wanted to improve his knowledge and skills in gathering, analysing and presenting data using ICT. He was aware that there were courses that he could apply for that cater to his needs, but all of them were either online or at venues that would incur more costs. He felt that he would need to sacrifice his time and energy to attend them which he was reluctant to do, due to his other obligations.

The focus group participants' profile

Teaching staff in School B are a mix of young (32%) and experienced (67%) graduate teachers with around 4% holding postgraduate degrees. During the data collection period, 21% of these teachers were from the peninsular or west Malaysia, while the majority (76.7%) were from local Sabah. At the time this data was collected, the school received d15 new teachers, either fresh graduates or transferred from other schools. The principal shared that many of the teachers in School B were not from the district, hence, the transfer rate is high. Most teachers would request for transfer once they have reached 3 - 5 years of service in the current school. For the FG interviews, participants were a

mixture of new and senior teachers ranging from 5 - 34 years of service. Table 4.3 summarises the individual interview and FG participants from School B.

Table 4.3: Interview and FG Participants of School B

Participants' Roles	Subject Taught	Years in service
Principal	Geography	33
Senior Assistant 1	Malay language	24
HOP	Malay language	9
HOP	Mathematics	15
HOD	Mathematics	17
HOP	History	11
HOD	Islamic Study	18
HOD	Malay language	34
HOD	Visual Art	29
HOP	Science	15
Teacher	Geography	25
Teacher	Mathematics	5
Teacher	Mathematics	10
Teacher	English	7
Teacher	English	9

4.2.3 Case study 3 - School C

Demographics and logistics

When data were collected for this study, the school had 1395 students, from aged 13 – 17. Many families favoured this top-performing co-ed school, but due to limited classrooms, it operated on a double session system with around 45 students per class on average at School C. As an urban school and located in the heart of one of the three major cities in Sabah, School C thrived with excellent students from higher income and middle-income families. Many of these families could afford to pay for their children to have tuition classes outside of school hours. Parents and alumni were also very generous with their donations to help improve the facilities and resources for the school. Many of the alumni hold important positions in the government and some are successful in business.

With consistently strong academic performance, School C has established itself as a top institution, not only in the district, but also the state of Sabah. Although educational policies have changed and there have been fewer

resources available over time, the standard has not dropped. In 2022, the school was chosen as a benchmark for TS25 Programme for the east coast region. Teachers received training for the programme starting in 2020. Both principal and SA1 attended all the modules of the programme.

Under the leadership of the current principal, School C has achieved significant recognition and accolades for its commitment to environmental sustainability. This includes winning prestigious awards at both state and national levels, as well as being the first secondary school in Malaysia to win an international environmental competition.

The principal's profile

Alvin has been a dedicated principal of School C for almost five years. Before this he was the SA1 in the same school. He started teaching as a Mathematics teacher. Then he gradually moved up to the positions of subject head, department head, senior assistant and principal in three different schools. In 2016, he was appointed principal for School C. He was promoted to 'Excellent Principal' for his leadership achievements.

As a principal, he continued to develop his knowledge and skills in order to be a role model for his staff. He won several competitions on creating fun maths activities using VLE (virtual learning environment) in 2018 as a result of the then government initiative to introduce VLE to the classrooms. He received Excellent Performance Awards twice and won several awards including 'Innovative Teacher' for district, state and national, and the 'Leader of ICT' for the Southeast zone.

To enhance his leadership capacity, Alvin spent his free time reading books on effective leadership. He believes that to be an effective leader, he needs to lead by example. Therefore, before he gets his teachers or students to do things, he will learn to do it first. As he is one of the most senior educators in the school, he earned the respect of his teachers by being able to demonstrate what he expects from his staff and did not just rely on giving orders without playing an active role himself. Starting as HOD, he led AR efforts and continued upon

becoming SA1. He was the chief editor for School C's AR publications. As a principal, he mentored a successor to lead his teachers in AR.

The senior assistant 1 (SA1) profile

Maniam worked well with Alvin as they knew each other since university days and they initially taught in the same school for several years before Alvin was transferred to take up a higher position in a different school. Alvin was already the SA1 at School C at the time Maniam was given the promotion to HOD. When Alvin took over the principalship of School C, he appointed Maniam to be his SA1 with responsibility for managing all curriculum-related issues for the school. They remain close friends and work well together.

The focus group participants' profile

The teachers at School C were a mixture of races, including Chinese, indigenous Sabahans, Indians, and Malay. There were 76 teachers overall at the time of data collection. There were 17 new teachers (newly posted or transferred from other schools) just reporting for duty at the time of this study. Similar to School B, the transfer rate was high because teachers were mostly from other districts or states. As a tradition in School C, every teacher needs to be involved in AR, producing a report once every two years. For new teachers (transferred or newly appointed to School C), AR was made mandatory. More than half of the interviewees for the FG interviews were teachers with more than 20 years of experience as depicted in Table 4.4.

Table 4.4: Interview and FG participants of School C

Participants' Roles	Subject Taught	Years in service
Principal	Mathematics	33
SA1	Physics & Chemistry	33
HOP	Geography	7
HOP	Chinese Language	27
HOP	Geography / Physical Education	18
Counsellor	Counselling	38
HOD	Language	33
HOD	Humanity	22
Teacher	Physical Education	35
Teacher	Mathematics	1

4.2.4 Case study 4 - School D

Demographic and logistics

School D is a co-educational school with 1333 students, mostly from middle income families. School D is an urban school located in one of the three major cities in Sabah. School D started operation in 1991 with just four classrooms, sharing with the primary school of the same name. The school moved to its own building in 1995 and operated on a double session system. After 2011, there were additional classrooms built to enable the school to operate in a single session. The school caters for students aged 13 – 19, including the Form 6 students. School D also provides education for special needs students.

The student population is diverse, with classes averaging 45 students but sometimes reaching up to 55. The school has earned numerous awards for its environmental programme, including being the first in Malaysia and Southeast Asia to achieve the highest Green Flag Eco-School status in 2014. Additionally, it boasts excellent Form 6 students and excels in various extracurricular activities and sports. While maintaining decent results in national Form 5 exams, the principal and SA1 aspire for further academic improvement.

The school was enrolled to TS25 programme in 2019. The current principal came in a year after, without receiving any formal training for the programme. She claimed that she was able to understand the programme by reading the modules. The SA1 attended all the TS25 modules with the previous principal.

The principal's profile

The principal, Angela had just taken over School D in April 2022. Prior to this, she was a principal at several schools in the district. Her most recent school was a high achiever school with excellent academic achievement in the national exam. She has 17 years of experience as a principal and has been in the education sector for 32 years. She was formerly a lecturer in a teachers' training institute and an experienced HOD for Language before being appointed as a principal.

Due to the academic success in her previous school, which she was able to turn around and maintain, she frequently received requests from different schools in the district to share her methods and insights into high-quality teaching and learning. As a passionate educator, she loves to read other research on improving students' learning, and one of her favourite books is John Hattie's Visible Learning Strategies. She regularly shares her insights with her SLTs and teachers. At the point of this data was collected, she had developed and delivered a school-based TPD to enhance her teachers' instructional practices. She shared that she was monitoring the implementation process. She is a firm believer in creating a culture of excellence by working as a team. Before making any decisions, she shared that she frequently consulted her SSLT and MLT.

The senior assistant 1 (SA1) profile

Saleha has been the SA1 of School D for 18 years at the time of the data collection process. Prior to this, she was the HOD for the Humanities and has already been in the education sector for 26 years. She believes that learning is a lifelong process and the best strategy to learn was by shadowing her principal and immediately applying the inputs she gained to her own practice. She admitted that she dislikes having to do too many unnecessary reporting and documentation tasks, which she found to be the norm these days.

The focus group participants' profile

School D had 93 teachers, and 77% of them have more than 10 years of experience. 16 out of 93 (16.2%) of these teachers have obtained their postgraduate degrees. The participants for FG in School D were extremely diverse, ranging from 1 – 32 years of service. 7 out of 12 of them began their teaching career in School D and have stayed. Table 4.5 summarises the individual interview and FG participants from School D.

Table 4.5: Interview and FG participants of School D

Participants' Roles	Subject Taught	Years in service
Principal	Malay	32
SA1	Geography	26
Teacher	English	1
HOD	Science & Mathematics	28
HOD	Humanity	30
HOD	Technic & Vocational	29
TPD coordinator	Mathematics	13
Teacher	Malay Language	7
Teacher	Malay Language	4
Teacher	Islamic Study	14
Teacher	English	1
Teacher	Physical Education	7
Teacher	Economy / Accounting	15
Teacher	Biology / Science	13

4.3 Introduction to the structure of each case study chapter

Each of the next four chapters takes as its focus the presentation of findings and analysis of data generated from one of the four case studies. Each chapter adheres to the same structure.

The findings are structured based on the key themes that emerged in response to the study's SRQs, as well as through the development of arguments and findings from multiple sources of data. The SRQs were designed to explore the perceptions and experiences of teachers and school leaders regarding their PD as a means of developing their knowledge, skills and values, and as significant actors in the implementation of education system reform in Sabah secondary schools. This study specifically focuses on government-mandated (external and hybrid) PD programmes designed to increase the capacity of Sabah school leaders and teachers in implementing educational reforms, as well as how these programmes contribute to the development of effective internal TPD management and implementation in selected Sabah schools. In addition, the SRQs were designed to provide insight into crucial elements and factors to consider when designing an effective TPD model that enhances the capacity of schools to implement policy initiatives.

The following categories—derived from the four SRQs—are used to group the major themes that emerged during the data analysis process and thus form the structure of chapters 5 to 8:

I. The perceptions of school leaders and teachers regarding their professional development experiences.

II. The factors influencing school leaders' and teachers' capacity to implement their PD learning.

III. School leaders' and teachers' perspectives of an effective PD programme.

IV. School leaders' and teachers' perspectives on policy and other contextual conditions necessary to support an effective PD system.

Out of the 14 interviews conducted, 12 were in Malay language. However, to enhance readability, participants' quotes were translated into English. The researcher ensured that these translations faithfully captured the intended message conveyed by the participants through member checks. Additionally, two interviews were conducted in English, and any local expressions used in the quotes were clarified within brackets for better understanding.

Chapter 5: Case study - School A

5.1 Findings and analysis

The first case study's participants viewed PD as important to enable them to comply with policy demands and support their students for examinations. However, their experiences in PD engagement were largely problematic.

As explained in preceding Chapter 4, the findings are discussed in four categories. Interview participants' quotations are coded as follow:

Table 5.1: Interview and FG Participants from School A (accurate as of 2023)

Participants' Code	Participants' Roles	Data Type
Simon	Principal	Individual Interview
Anthea	SA1	Individual Interview
George	HOD	FG 1
Rian	Teacher	FG 1
Natalie	Teacher	FG 1
Nazri	Teacher	FG 1
Rose	Teacher	FG 1
Ninie	Teacher	FG 1
Cynthia	Teacher	FG 2
Ava	HOD	FG 2
Meena	Teacher	FG 2
Lily	Teacher	FG 2

5.2 The perceptions of school leaders and teachers regarding their TPD experience

Two key themes emerged from the analysis of School A's leaders and teachers' perceptions regarding their TPD engagement: the value they attributed to their TPD experiences and the implementation challenges they encountered when implementing learning in context.

School leaders' perspectives

When both the principal and SA1 were asked about their views and experiences of engaging in PD, they immediately referred to teachers' PD rather than their own (discussed below). The principal believed that TPD helped to enhance

communication and remove barriers to information transfer between teachers and students. He believed that if teachers could deliver curriculum content effectively, their performance would be highly professional. Therefore, he considered TPD an essential part of supporting a teacher's career progression.

His view was shared by his senior assistant, who felt that TPD was crucial to remain relevant due to the "numerous changes in education today, teachers desperately need professional development." (Anthea). Furthermore, she believed that TPD helped her teachers implement current policy initiatives, *"enhance teachers' pedagogical skills...especially now the focus is on digital learning, teachers need to know and implement it."*

It is evident that both leaders associated PD with teachers but did not immediately link it to their own learning. This may be because the primary national policy has consistently focused on developing teachers, with the PD of the school leadership team (SLT) of the school being little emphasised or discussed. Further discussion on the importance of PD for SLT particularly in leading and managing TPD can be found in Chapter 9.

The findings from two semi-structured interviews with the school leaders indicate two contrasting views of the value of their PD experiences. Simon, the principal, hoped to engage in PD that would develop his capacity to establish stronger relationships with his staff and the community. He perceived relationships as dynamic and ever-changing, and sought to strengthen this area of his role in order to lead more effectively. The principal stated that he did not get the kind of capacity building that he needed from the mandated Ministry of Education (MOE) courses. Rather, he had to look elsewhere to fulfil his own PD needs. At times, he resorted to learning from YouTube videos and from on-the-job experiences. He placed more value on voluntary external PD delivered by private training providers than on the government-mandated courses. He explained:

> For this content I didn't get from the courses by the ministry and state education department. Their contents are usually more to...what to do, more or less like that, you fill...you fill in this one, more or less like that. And only when there are sharing sessions that I get this kind of content...and sometimes from experience. But the contents that I want I got it from two different courses by private training providers (Simon)

Simon's response suggests that mandated PD tended to focus primarily on compliance with policy initiatives rather than on strengthening capacity.

Interestingly, Anthea had a contrasting view on the value of mandated PD for her own development. Anthea sought more knowledge and skills in performing her managerial tasks in her role as a senior assistant. Since she was still new in this position, she wanted to gain more knowledge in financial and asset management. She stated that her needs were met by the courses provided by the government. However, she reflected that she learned most things on-the-job and by seeking guidance from the principal and her colleagues. Her response indicates that while mandated PD courses were helpful, they were only useful for providing input and did not necessarily result in a change in practice. Moreover, her PD needs focused more on short-term goals than her role as a major participant in educational reforms.

Additionally, a review of the attendance records of both leaders indicates that they participated primarily in government-mandated training programmes that focused on management input rather than capacity building as leaders of professional learning and agents of educational reforms. These findings suggest that the focus of PD is primarily about compliance and accountability, rather than developing school leaders' capacity to transform the school system for effective implementation of educational reforms. More discussion on accountability can be found later in this section.

In terms of implementing educational reforms, Anthea had to rely on her leadership team for support. The observation data reveals that the SLT comprising the principal and four senior assistants, met every morning to discuss strategies and solutions to problems that arose each day. According to Anthea, they usually met every time an issue was detected. She elaborated that she would *"directly discuss with all the other senior assistants... So, we will find solutions to problems together."*

The analysis suggests that both leaders have different goals to fulfil, which is reflected in how they valued their PD engagement. However, they both have one goal in common, that is to put improvement of students' exam results as the ultimate outcome for TPD:

> PD really helps teachers because it will enhance their understanding and pedagogical skills, actually…for… PD like techniques to answer exam, we did invite external trainers from the district or state…teachers and department heads are always active to…find…discover knowledge from outside…we have a yearly planner where we scheduled the courses for teachers to attend, that they need to attend for example now… we do a lot of answering exam technique (Anthea)

> So, this [a smartphone application he created] is to record students' task performance [on selected topics based on exam requirements]…but behind that, my goal is for teachers to create assignments for students…So that assignments, I can get teachers to key in the scores for each important assignments and guide their students for exam preparation. I can get the data for the whole Form 5 students. So this application is only for Form 5. (Simon)

Both responses from the school leaders above point to the significance of aligning their TPD strategies with exam results particularly for the school leavers' exam at the end of Form 5. However, the principal also focused his efforts on improving the performance and capacity of teachers to prepare their students for examinations.

One of the reform initiatives involves the use of digital tools in the classroom, but, according to Simon, not every teacher can implement them. He therefore encouraged teachers to integrate digital tools into their teaching and to create assignments related to exam preparation. He developed PRESTO, a smartphone application that was supposed to help his teachers distribute assignments and track students' progress. In order to facilitate the use of digital tools, the principal trained a group of teachers, who later mentored their colleagues. He elaborated that the group of mentors was selected based on their expertise:

> When I implement, I will engage relevant people, like for this [smartphone application] …is about ICT. For action research we have Dr Linus, who is also the district trainer. So, I let them take over. For this [smartphone application] all ICT teachers are involved. This means that I will get expert teachers involved.

The principal mentioned that putting students' and teachers' learning on a pedestal while satisfying the requirements of the policies is something that he wanted to achieve from his initiative with the smartphone application.

Based on leaders' perceptions of PD, three propositions emerge:

Proposition A: Capacity building is enhanced through social interactions in context. School leaders strengthen their capacities through small group discussions on issues relevant to their context. By finding solutions together, their learning becomes more meaningful and relevant to their own needs. Social interaction between group members helps bring in diverse input, which they can then select, apply, and reflect on.

Proposition B: The value of TPD is enhanced through problem-solving practice. As demonstrated through the problem-solving discussions between peers in the leadership team, they modified, adapted, and applied their knowledge and skills to address issues that mattered to them. Their engagement and commitment were visible throughout the sessions.

Proposition C: As the principal pointed out, peer mentoring is an important tool for strengthening the capacity of teachers to implement reforms. According to the analysis, a group of teachers with expertise relevant to their skills has been identified to assist with implementation. Having such a group of experts can serve as a catalyst for school reform movements.

Middle leaders' and teachers' perspectives

The responses from the FG participants were divided into two perspectives: those who thought TPD experiences were useful in helping them cope with curriculum change and prepare their students for the examinations; and those who felt the experiences did not meet their needs and expectations. Table 5.2 summarises the sub-themes for each view:

Table 5.2: The value of TPD as perceived by School A's FG participants

Useful	Not useful
• knowledge and skills enhancement • peer learning • problem solving • student-focused • exam-focused • sharing of teaching strategies by other schools • observing other schools' teachers (district-led) • collaboration and demonstration (with external experts)	• ambiguous and inconsistent information • irrelevant / unrelated to subject matter and exam-taking strategies • irrelevant to solving their own problems • excessive documentation • unrealistic expectations • ad-hoc

George, a middle leader, stated that TPD enabled him to better support his students following the change in curriculum and examination format:

> Without PD in which the MOE cascaded the information to us, we would be confused and unsure of what to do to assist our students or teach more effectively when the SPM (exam) format for music education changed. (George)

George's response was echoed by Meena, a teacher, who shared that TPD benefitted both teachers and students, and that it should be offered regularly:

> Since there will always be changes, there should be courses every year. Teachers need to be aware of the changes. If not, it will be difficult to give students what they deserve.

Four teachers mentioned the value of district-led TPD when it involved sharing strategies to solve student learning problems, as exemplified by these responses:

> It lets us know that, at least in some cases, other schools in the district are experiencing issues similar to ours and, in some cases, different ones. And we can use those things, if we believe they are relevant, with our students, particularly if we can spot the problems that are similar to ours and the solutions they use. Sometimes it can be effective. (Meena)

> Mostly helpful. Good for us, because they shared strategies that are proven effective from their action research. They have done it in their classrooms and achieved their targets so they share it with us. So, we accept and implement them in class. (Cynthia, a teacher)

Nevertheless, despite being aware of the significance of TPD and some of the benefits connected with TPD experience, not all participants perceived their TPD engagement as useful. One teacher felt that the quality of information received from engaging in external TPD was disappointing. He identified the issue as the generalised nature of content, along with inconsistency and ambiguity, which reduced how useful he found the TPD to be:

> We feel that we already know the information that was shared about the SPM (exam), KSSM (the revised curriculum for secondary school). We actually want more details, not the general information that we already know…because sometimes, from our experience, the information they shared did not match the format of the actual SPM exam. (Nazri, a teacher)

Another intriguing discrepancy concerns the kinds of TPD programmes in which these participants took part during school hours. All the teachers in FG 1 concurred when Nazri pointed out that some of the TPD courses they were required to participate were too general or unrelated to their fields. However, only Nazri responded when the researcher asked for further examples of general or unrelated courses. Natalie, a teacher, stated that:

> There was no general course but…except the one by SPR [the Election Commission] but even that could be useful because all these whiles, we don't know how to carry out election duty…but so far, the ones that I attended were quite useful for my field.

Based on the researcher's observation notes on the first and second visits to the school, many teachers, including both senior school leaders were called out to attend a course by the Election Commission, leaving the remaining teachers to take over more classes than usual. According to an informal conversation with a middle leader, almost 90% of the school staff were involved with the election training, with half of them called out on the first day, and another half on the second day. As the data suggests, there may have been unrelated but compulsory courses involving school leaders and teachers, but it is possible that the participants might have been too polite to assert that these were not useful or irrelevant courses.

All FG participants perceived a key purpose of TPD as supporting the development of their ability to improve examination results. As such, they valued TPD which was exam oriented. As illustrated by the following responses, the focus of TPD planning in School A was to achieve better results in the exam:

> For teacher development, the head of subject panel [will plan]. They will try to invite external experts, for example like for Exam paper marking right, so teachers will master that right? They will invite teachers with exam marking experience, then they will invite them to give an in-house in school...usually that is the practice, so teachers will have improvement in the aspect of pedagogy (Meena)

The preceding response highlights the discrepancy between the government's intention behind TPD related to system improvement, and what the teachers in School A perceived as valuable and pertinent for developing their practice. Taking this finding, as well as school leaders' perspectives on the alignment of TPD with exams, a third proposition is proposed:

> Proposition D: Teachers value PD that helps them address student learning issues and improve their performance. As an alternative to highlighting teachers' PD needs in the first place, it might be helpful to use a backward planning approach. The first step in this process should be the identification of student needs, followed by teachers' pedagogical strategies in secondary order. It is more likely that teachers will be motivated and committed to changing their practices if they concentrate on solving student learning issues, instead of highlighting their teaching gaps.

Implementation challenges

The findings from School A also point to seven key challenges associated with implementing educational reforms. All 10 FG participants suggested that these challenges resulted in superficial changes without deeper significance. One participant, George, a middle leader, expressed his confusion about the TS25 programme, stating, *"I don't understand."* Additionally, Ava, another middle leader, echoed the sentiment that their grasp of reform initiatives, notably the TS25 programme, remained unclear, describing it as *"still blurred"*. The findings are reflected in Figure 5.1.
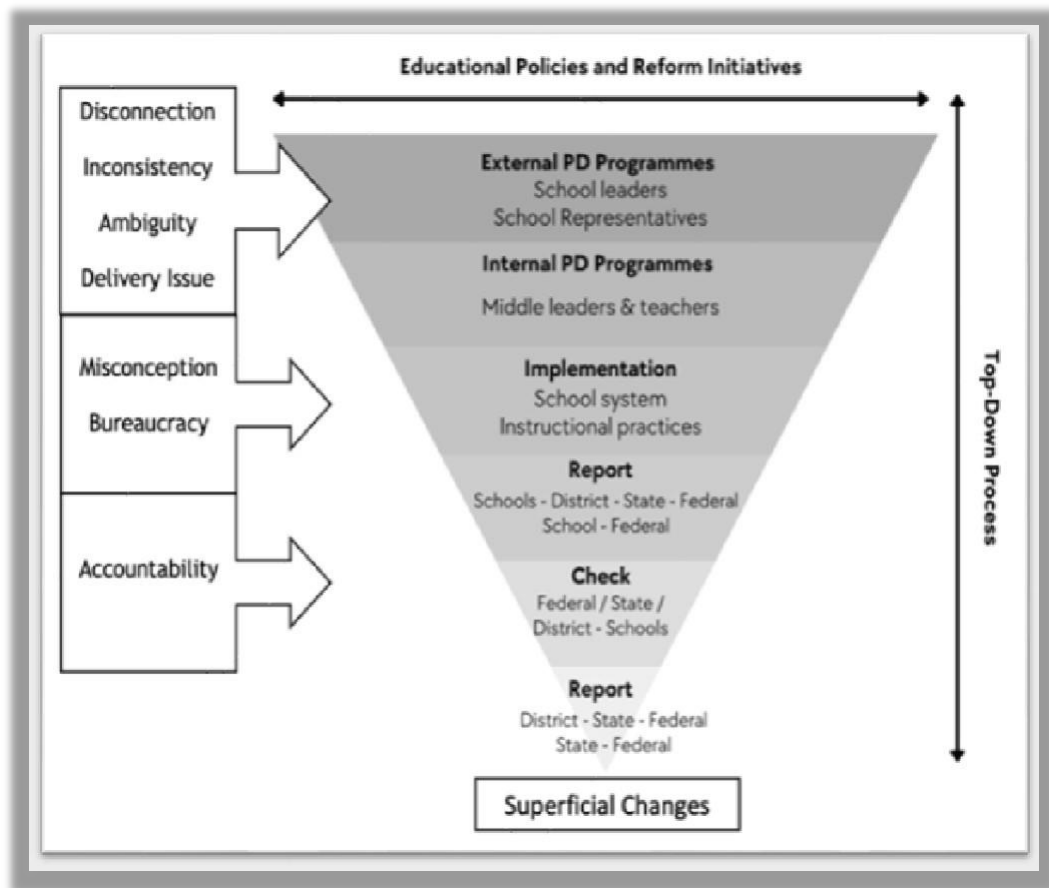
Figure 5.1: Teacher professional development for educational reforms and implementation challenges

Disconnection as revealed by the analysis manifested in two ways:

i.   Education management disconnection
ii. Policy and school reality disconnection

The data reveal that there is a potential disconnection between all levels of education management regarding policy implementation:

> In the first year, there was too much focus on the lesson plan format. For TS25 school, the lesson plan should have this and that and finally what happened was, honest, Ministry personnel came down to school and asked if all that were necessary. That came from the school inspectorates as a result of the unrealistic lesson plan expectations. (George)

According to George, the perspective of the school inspectorates (a division of the Ministry of Education) on TS25 implementation is different from those of state, district education officers and the school leaders. In addition to a lack of understanding of the main goal of the TS25 programme, the differing

perspectives of top management contributed to a lack of motivation on the part of teachers.

The analysis of TS25's programme guidelines provides further evidence of disconnection. The guidelines specify that the principal should be the same throughout the eight modules of training, as well as the 3-year implementation period. However, the previous principal and senior assistant, who attended modules 1 through 4, were transferred during TS25 training. The leadership change happened before they could share their learnings with all the staff. As a consequence, both new leaders had to find other means to learn and interpret the information in the earlier modules. This event could explain the reasons behind teachers' inability to fully comprehend reform and transformation through the TS25 programme as there was missing information and gaps in knowledge.

Due to the lockdown during the COVID-19 pandemic, training consisting of both formal courses and practical application in schools, was further disrupted. As a result of this scenario, there was a further disconnect between policymakers and state level management, which was responsible for 2020's TS25 training.

A key component of TS25 focuses on strengthening school leaders' capacity as reform enablers. Accordingly, both principal and senior assistant 1 were the primary participants for 5 out of 8 programme modules. However, data analysis points to the disconnect between policy intention and actual implementation regarding TS25 initiatives. The analysis of documents related to leadership training for TS25 modules indicates that the principal of School A and Senior Assistant 1 should have completed all modules. These modules have been delivered in four phases since early 2020. It appears from the data collected through the interviews with both leaders that Simon and Anthea did not participate in the earlier modules (1–4) as they entered School A in late 2020. In their explanation, the earlier modules were not repeated, so other means had to be found for obtaining the missing information.

8 of the 12 participants in School A indicate that there is an even greater disconnect between school policy and school reality. They talked about the lack

of resources and facilities to support the reform agenda, such as digital learning

and TS25 instructional demands:

> Digital does not mean we use LCD (projector)…and all that right? It means that students use all applications? Their internet connectivity right? If at school we have a problem. They don't have enough gadgets. (Meena)

Meena further elaborated that:

> Maybe the classrooms are also not conducive, right? Maybe …what…if like we want to use LCD (projector) or anything like that, there are some power sockets that are not functioning. (Meena)

The information suggests that the school context may pose constraints to reform

implementation. The teachers in this school also reported that they sacrificed

their own resources to be able to implement the policy initiatives. Meena, a

teacher, shared that "for things like LCD (projector), generally, teachers here

bought their own LCD.". Cynthia, a teacher, further supported Meena's

argument:

> Yes it is difficult to find the time…because to develop…let's say like using YouTube, they can't open, we want to include in our PowerPoint we want to prepare the PowerPoint, that is what we sometimes don't have time. We want to find the materials, for mathematics, we can't just let the students watch, right? We want them to do it. (Cynthia)

The lack of resources also includes issues with teachers' internet connection as

shared by Rose (a teacher): *"Internet problem…that's a problem. We have a*

problem.", and Meena: *"We use, if like me, I use my own data or hotspot.*

Sometimes the coverage does not reach some classrooms. There are some blocks

in this school that can't connect to the internet."

This sentiment was echoed by Anthea who shared that although most of her

administrative roles now needed to be reported online, the internet connection

was unstable:

> Like today there is a problem with the connection. The internet line [is] sometimes okay and sometimes not okay in this school. So that is the obstacles we face, and also for teaching, with students' situation. (Anthea)

A further issue which surfaced in the data concerns a lack of resource in the form

of knowledge. Many participants indicated that they valued external experts or

trainers, usually teachers who have experience as examiners or have proven

strategies to improve students' outcomes (see Table 5.2.3). Although the principal wanted his teachers to develop their own knowledge and skills through action research and innovation projects, teachers seemed not to be keen on such approaches. The principal expressed this as having to deal with the mindset of his teachers:

> I can see that they struggled...one of the reasons is that action research is challenging, that's what I heard. That's what I've been told, a bit too much for them so I make it simple, to best practices. So it seems like they find it easier with best practices. But actually action research is also best practice. So now I just require them to identify their best practices...mindset...just mindset actually, the process is the same, to find good things. (Simon)

Simon's response suggests that teacher mindsets must be addressed if they are to be willing and ready to implement changes. Readiness for change is discussed further in the next category of key themes.

There is a significant concern arising from Simon's response in that the principal considers action research to be interchangeable with 'best practices' in teaching. Though he stated that his main concern was to encourage his teachers to engage in continuous improvement, it is imperative to emphasise the misconception he demonstrated. In action research, a teacher engages in systematic inquiry to evaluate and improve their practice. The term best practice is generally understood to refer to a practice that is widely accepted, effective, and established. It is important to distinguish between the former, which focuses on the process of inquiry, and the latter, which focuses on the outcome, and may or may not be the result of cyclical inquiry. The misconception may prevent teachers from engaging in meaningful PD, which is promoted by action research. Instead, as indicated by four of the focus group participants, sharing best practices takes precedence in their TPD process, which is largely hit-or-miss as described by Meena, *"maybe we can...if suitable...relevant...we can use and sometimes we...well some are effective"*.

According to one teacher who was assigned to mentor his peers, action research can offer many benefits, but implementing such an endeavour can prove challenging. He completed his first action research project during the lockdown. However, once the school reopened, he could not find time to complete his recent project. His comment is another indication of a misconception, as he saw

action research as disconnected from classroom practice. The teacher also mentioned that the word 'research' caused anxiety among his peers since they believed it implied a high level of workload and academic rigour which might explain the lack of engagement.

Misconception is also evident in the implementation of TS25 programme. For example, too much emphasis was found to be placed on minor details like the format and content of lesson plans, as opposed to the overall programme's goal to strengthen the school's leadership capacity in order to improve school quality and student outcomes. The TS25 programme was viewed as nothing more than a list of tasks to be completed: *"But thankful that now teachers are practising whatever, the requirements of TS25, PBL,…with PLC, Learning Walk, all that. Teachers here are doing them."* (Anthea)

Another misconception evident in the data regards the professional learning community (PLC). Anthea indicated that internal PD typically takes the form of a PLC, as per the policy requirement. However, the PLC concept was understood in this context to mean meetings or discussions to determine the best solution to a problem, which was typically sporadic, and primarily aimed at satisfying external demands that a PLC form a regular feature in the school:

> They carry out many PLCs as planned by their department and subject heads every week and the principal has set for this school to key-in their PLC sessions every Tuesday. So at least they have PLC records from teachers. So, each subject panel usually they will have a meeting then maybe at other times, free times, either the subject panel head…department head with the subject panel head or teachers with the subject panel head…Sometimes between us, we can do PLC. Like, whenever there is a problem to discuss we will discuss together…example like, often the department and subject panel heads…like the subject panel head has a problem in management aspect, this will be discussed with the department heads, and they will agree on the best solution for the problem. (Anthea)

The response above, combined with observation data from two PLC sessions and findings gathered from the PLC reports, led the researcher to conclude that PLCs are seen as a meeting for determining solutions to school problems or subject management issues, as well as for sharing best practices in teaching for exam preparation. This viewpoint of PLC is clearly distorted from its intended purpose of empowering teachers to focus on their own learning collaboratively. Besides misconception, the ambiguity of the PLC process is also evident. The lack of

clarity regarding the relationship between PLC activities, classroom practice and student learning outcomes might be a big hindrance to impactful PLC implementation.

Further, the findings indicate a gap in leadership roles during the entire PLC process. It was evident from informal conversations during observation and focus group interviews that each subject leader was responsible for designing and implementing the entire PLC process. No mention was made of how the senior leadership team supported and motivated teachers during the PLC process. It was, however, the principal's directive that each subject leader key in PLC reports every Tuesday.

The participants also highlighted inconsistencies with regard to frequent policy changes and external coach support, as well as the type of support they received. All focus group participants identified themselves as overworked as a result of frequent policy changes and the unrealistic expectations accompanying such changes. Many lamented the excessive documentation that came with each initiative, in addition to their other non-teaching roles, resulting in having too many administrative things to achieve, which made achieving change, unrealistic:

> Ideally, TS25 is a good programme because it wants to transform all, from the leaders to all teachers. Everyone will have their own responsibilities. It will establish cooperation, ...collaboration among all the stakeholders. Beautiful design. But in terms of implementation, quite challenging. That's all...maybe because there are too many [things] to accomplish because there are too many activities. (Nazri)

Nazri further elaborated that:

> If we are to do everything that we state in the lesson plan, we won't be able to finish delivering the syllabus because one hour is not enough to do activities like case study with all the cycles, and at the same time PBD [classroom-based assessment], then must use digital...Too many in [a short time]...though the time is only one hour, of course not enough time to do everything. In fact, to manage our students, to set the LCD [projector] will already take maybe 10 minutes and sometimes we can't connect...too many obstacles.

From Nazri's responses, it can be deduced that there are other factors that a teacher needs to consider when it comes to implementing reforms in the classroom. A review of policy guidelines, curriculum documents, and professional development materials revealed that they did not provide adequate guidance

for how teachers should handle their multiple roles and responsibilities across diverse settings. According to six of the ten focus group participants, finding a balance between time and activities has been challenging.

The participants also talked about how they felt about the frequent changes emanating from educational policies that affect their emotional wellbeing: *"Two years [of] change. Another two years, change again. We are experiencing extreme confusion"* (Ava, a middle leader). The inconsistency in policy goals affects the participants' wellbeing as they described themselves as *"always tired"* (Ninie, a teacher), *"frustrated, confused"* (Rian, a teacher).

George also described their efforts as futile: *"Actually it feels like wasting energy, wasting papers that we already used"* (George). Natalie, a teacher, too felt that they were engaging in a useless effort: *"Wasting papers, wasting documentation papers that we just moved and discarded, just like that..."* According to the responses above, the excessive amount of documentation associated with the policy change was perceived as *"burdensome"* (Cynthia, a middle leader) resulting in a lack of interest in PD, as described by two teachers and a middle leader during the observation process.

According to Meena, there were too many reports to write and sometimes they had to fulfil sudden requests for documentation from the district or state. They were constantly interrupted by these *"ad hoc"* (Meena) requests and were forced to spend much of their time preparing for them:

> Sometimes they asked for reports, for example PBD [classroom-based assessment] report, what else, there are ad-hoc, sometimes...we dislike ad-hoc, those ad-hoc [reports or tasks], sometimes cause disruption...when our brains are ready to do this, then suddenly they asked for something else and it is mandatory for us to submit them, so we feel disturbed (Meena).

As a result, the school's PD coordinator, who provided relevant documents for the study, indicated that most of his colleagues would discontinue participating in any PD after completing the required 7-day period.

The findings from School A suggest that there is high stakes accountability through bureaucratic demands from top level management in the education reform movement. This is evident from the excessive documentation and sudden

requests as highlighted by the participants. When too much emphasis is placed on accountability and compliance with rigid policy guidelines, it may lead to a lack of interest in PD and the feeling that PD is an unnecessary burden and a disruption of teachers' work experience.

The data also suggests that there are two critical problems that must be resolved in order to implement education reforms in schools: the frequency and quality of support provided. The participants identified the support they received from the district education personnel, however, they felt that this support was insufficient. For example:

> Yes, support from PPD [district education office] SISC+ [School Improvement Specialist Coaches] right, but they need to go to all the schools in the district so maybe for this school they come only once a year. So that is not enough. (George)

George's response indicates a lack of frequency in the support provided to individual schools as an issue. To make up for this, or to provide an alternative to such support, the school was required to submit regular implementation reports to the district education office:

> Yes there is support. Usually, we will write a report, implement...we will implement. Once it is implemented, already implemented, we write the report. Usually like that. (Meena)

A further issue related to the provision of support which seemed dependent on the knowledge and abilities of the individual coach assigned to the school. Anthea identified that for management related issues, the school could access support easily:

> If there is a problem about management, I will contact the officers in charge in the district education office and they are always supportive. Yes, sometimes tasks related to data and academics, I will go straight to the deputy officer in the district office, Miss Lay, if like the 'e-operasi' [an online portal to key-in data], I will go straight to her, the relationship is good (Anthea)

Some district coaches provided subject specialist support by collaborating with teachers in implementing initiatives with the students:

> But we do have actually, for mathematics we have our [coach] ...who always comes from PPD [district education office]. He will come and do it with the students so we get to join and can see a live example. (Cynthia)

Teachers found this type of support useful because the emphasis was on enhancing students' capacity to respond to specific identified skills based on the exam performance analysis. They valued the coach's ability to demonstrate the necessary skills rather than merely offering reading materials or verbal instructions.

The principal indicated that the district education personnel came regularly to the school, to monitor progress of the implementation of TS25:

> I received concrete feedback from...because district education officers always visit this school, to monitor this TS25 so the officer came the other day and told me that she noticed several innovations from some of the teachers here. So those are [some] outcomes from the action research. So,... a few times they monitor... the officer told me that they recognised one [innovative teacher], today another one, so I think that is a good environment to have. (Simon)

However, the response above also imply that the visits served primarily as a check on the guidelines' activities, rather than as a means of facilitating staff understanding, or enhancing the school's capacity to implement changed practices. This finding is further supported by the response from a middle leader:

> Now we have this TS25 ... I don't understand... that in the first year, there was too much focus on the lesson plan format. For TS25 school, the lesson plan should have this and that...All that TS25 asked for were put in, but whether they are applicable in the class or not, we don't know. (George)

The respondents identified that, due to lack of external support, they had to rely on other means to help them understand and then be able to implement reform: *"Usually I get help from YouTube videos because on my own I can't do it."* (Lily, a teacher). The principal shared similar view: *"I don't get support much in terms of doing my projects. I usually do it on my own. If I don't, some things that I don't know I can get it from YouTube."* (Simon)

A fifth proposition that emerged from this discussion concerned inconsistency:

> Proposition E: The inconsistency of policy goals and support influence the quality of implementation in schools. It is evident that the participants desire consistent focus and practical support in their effort to interpret and implement policy goals.

In addition, the principal suggested that the policy guidelines were not always helpful and could be ambiguous or irrelevant to the school's own context:

> But sometimes the guidelines depend on the implementors' interpretation…Whether they can understand, or not, it will depend on the creativity of various parties. Because, if just the guidelines…what if 10 guidelines sometimes can work or sometimes [are] not applicable. Because if 10 of them can't be accepted, so how? So we have to be creative. (Simon)

Therefore, the principal suggested that a degree of flexibility was key to successful reform implementation, rather than literally following everything in the guidelines. Simon's insights also indicate the need for support to accompany the guidelines.

11 out of 12 participants thought that the challenges impeded meaningful reform and may have led to the feeling of 'burnout', corroborated by informal conversations with two middle leaders and five teachers during the observation process. Anthea, the senior assistant 1, also appeared to feel the same way when she was asked about her PD goal, indicated by her response: *"honestly, with all the challenges, the time, workload and all, I feel like (long pause) in my mind I just want to retire."* The principal, however, did not let the challenges deter his focus to improve his capacity to support his teachers to implement reform and achieve better student outcomes in exams. This insight suggests that readiness for change as well as mindset are key factors in determining how educational actors respond to reform initiatives.

5.3 Factors influencing school leaders' and teachers' capacity to implement their TPD learning

The factors influencing school leaders' and teachers' capacity to implement PD initiatives in School A is summarised in Figure 5.2 below.
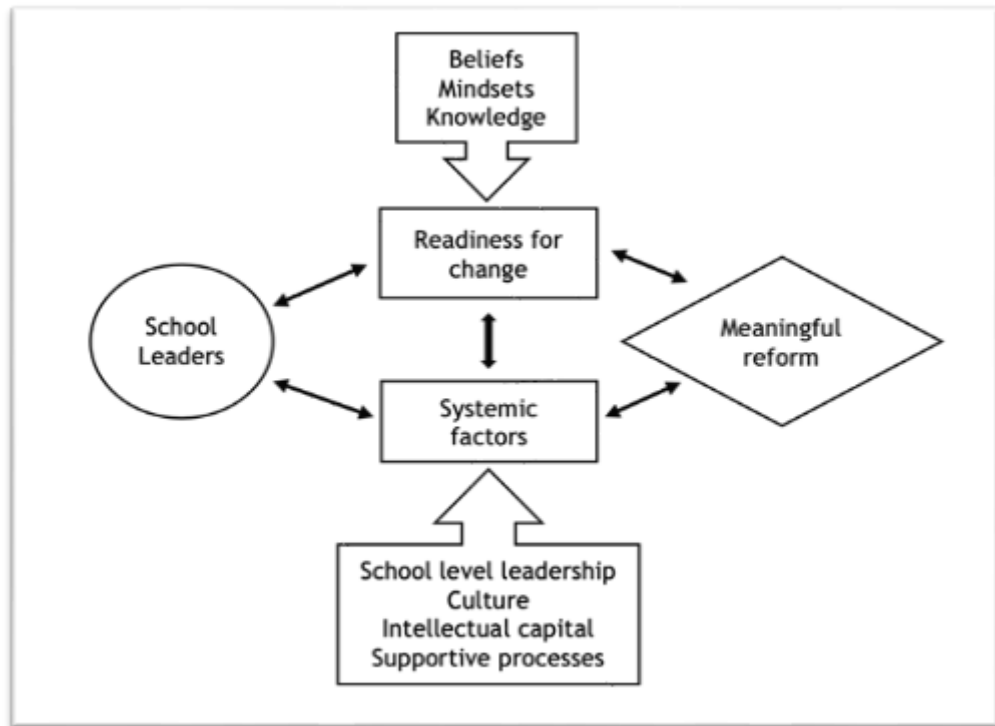
Figure 5.2: The factors that influence School A's leaders' and teachers'

Based on the analysis of the findings, three significant factors seem to impact the implementation of PD initiatives that lead to meaningful reform for School A. The three factors are school leaders, readiness for change and systemic requirements. The role of the school leadership team is seen as key to the other two factors.

Systemic factors

Systemic factors include the capacity building of school level leadership, including the senior assistants and middle leaders, so they can provide supportive processes like monitoring, coaching and mentoring. In addition, school leaders have the authority to provide support in terms of structures such as time and design, and the necessary resources for PD, along with the implementation of learning. According to George, *"if the school administration makes PD a high priority, they will give opportunities and time for the teachers to share input from external PD to their colleagues."* Similarly, Natalie, a teacher, suggested that school leaders discuss strategies to reduce unnecessary workload so that teachers are able to focus on improving instruction to meet educational reform initiatives.

The support system operating within the school itself was seen as promising with the principal's effort to empower a small group of catalysts to mentor his teachers:

> I conducted a course, give a course on how to do it so they can explain...just in case I am transferred to another school, at least they will not be frantic right? So I must give them the skills and motivate them. That's how I did with action research and of course PBL [project-based learning]. Things like that. I have follow through. (Simon)

However, as previously discussed, action research was perceived as too challenging by the teachers so it was changed to identifying best practices.

Simon also acted as a mentor to his leadership team through regular discussion and problem solving activities, as shared by the senior assistant 1:

> Like this morning we have an issue, a problem, we will immediately discuss, with all the other senior leadership team members. So we are always like that...so whatever problems we will do it together, find the solutions together. (Anthea)

In order to develop his teachers' capacity to act on the initiatives promoted by the government, the principal encouraged peer mentoring and group learning, as illustrated in the response below:

> When I implement, I will involve certain people. For example like ICT, this group. For action research...we have Dr Majid, he is our state trainer so I give it to him and his team...for ICT, all ICT teachers will be involved. This means that I will involve teachers who have the expertise. Implementation... for the implementation I leave it to the teachers. So I will give them ideas...and my style is like this...if I want to get teachers to do something I will tell them let's do it together. (Simon)

In other words, the principal was working to create a culture of collaborative learning among his staff members because, when he took on the post, he found that School A lacked such an environment. He shared:

> I noticed, first, there was no collaboration. So my action was to create a tagline for the school. So I launched a competition with a pen drive as the prize, so I got...the tagline is...the winner is...Together towards success...So after that date, all official letters, publications whatever, must have 'Together towards success. (Simon)

The principal was concerned about developing the knowledge and skills of the non-option teachers (teachers who were not teaching their own subject of expertise), which he identified as one of the key issues for his school. He was

aware that not all teachers got the opportunity to participate in externally-provided PD. This meant that it was crucial that the school conducted internal TPD opportunities, to share the professional learning, especially to the non-option teachers *"...to give pedagogical skills"* and to inform them *"of the latest concepts by the Ministry, for example digital learning. Then...the use of ICT, how it is done"* (Simon)

In terms of leadership training for TPD, all leaders mentioned that there were no specific opportunities for that area. The district education office did, however, provide for management roles and responsibilities which, from the response by Anthea, does not relate specifically to TPD.

> I didn't...or...not yet [received training for TPD management]. So far
> I just received...from the ppd [district education office] professional
> development training for assistant principals. We received [training]
> to enhance......roles......senior assistant roles.

The principal, too, shared that there was no specific course for TPD management. To lead the school for TPD, he had to use whatever knowledge he had gained from other courses: *"Maybe I just tap on wherever...but like training for strategic planning, there are courses like that. But there is not a course that informs: this is how you lead TPD. No."* (Simon)

The participants revealed that middle leaders planned their TPD but they seemed only to focus on fulfilling the requirements for TPD as mandated by the MOE, or to disseminate initiatives received from external training:

> For example department, one head of subject panel, when we are
> sent to receive input from...new things from...education, usually the
> procedure is we come back to school...we will share what we received
> to everyone in our responsibilities. (George)

The above response indicates that the middle leader perceived his role as a medium to receive and transfer new initiatives to his subordinates. The data thus suggests that there is a need to develop the capacity of middle leaders to lead and manage the performance and development of their peers. As Anthea stated below, the suggestion had already been made by the school inspectorate in their previous school visit but was yet to be carried out:

> Recently there was a suggestion from the school inspectorate to hold
> a Subject Panel Heads' enhancement course which we will...maybe in

the near future we will invite those who can help organise this PD for subject panel management. (Anthea)

The absence of specific training for leaders in managing school-based PD leads to the formulation of the next proposition:

> Proposition F: School leadership capacity building should include specific training on school-based PD management. Since school leaders play such a significant role in supporting and leading change in schools, their capacity building should focus on specific areas that correspond to these needs.

Readiness for change

School leaders' and teachers' beliefs, mindsets, and knowledge regarding the intended reforms are equally important to support the effectiveness of PD and meaningful reform. These aspects have a significant impact on whether school leaders and teachers are ready for the adoption of new practices. As George mentioned earlier in this section, leaders who place a priority on PD will enhance the learning experience as opposed to leaders who place a greater emphasis on a variety of other factors.

Based on the analysis of the participants' perceptions of PD, their PD experiences, and observation data, it is concluded that there is a disconnection between the principal and his teachers; while the principal is ready for change, the other 11 participants, along with other middle leaders and teachers observed by the researcher, appeared to have some conflict with, or be seriously challenged by, the reform initiatives. This conclusion comes from their overemphasis on implementation challenges described in their responses. While the principal said that *"implementers should be creative in implementing"*, the other participants highlighted that they were *"burdened"*, *"confused"* and *"frustrated"* over the whole process of learning and implementing initiatives.

5.4 Features of effective PD as perceived by the participants

The participants shared some of the features that constitute an effective PD programme for them. All participants indicated that they prefer active learning that includes discussion, problem-solving and practical workshops. Rose, a

teacher, shared that *"hands on activities can motivate"* while Cynthia mentioned collaboration with the trainers to apply strategies they learned in the classroom: *"We like if the trainers come to use and implement the strategies together with our students."* For Anthea, discussion is an important feature because:

> We have contribution of ideas, and can find solutions together. If we just listen and take notes, it does not develop your ideas and solve problems. But if we discuss, we get knowledge and ideas from others, for example external sources. (Anthea)

Lily shared that she likes courses that: *"are more relevant to content. If we take this topic, then what teaching strategies to use, like that"*. Additionally, leadership PD should include content that strengthens instructional leadership capacity as well as managing human capital like *"mind growth"* (Simon), instead of just focusing on administrative matters like financial and asset management, as is currently done. This scenario contrasts with the findings from the analysis of the Malaysia Education Blueprint (MEB) 2013, which outlines the plan to develop the capacity of the SLTs (principals, senior assistants, department heads, and subject heads) to leverage the decision-making flexibilities accorded to them with regards to both instructional and administrative matters. Be it through leadership development programmes or coaching by district coaches, the vision of producing excellent instructional leaders has yet to materialise.

Nazri pointed out the need for coherence: *"[PD] has to suit the [individual] teacher, meaning if the teacher teaches History, then focus on that subject. If possible, focus on their subject so they can improve and have in-depth knowledge"*. Additionally, PD that promotes some degree of flexibility and agency is highlighted by the principal and Lily (a teacher). Lily claimed:

> If I spotted an activity I saw from other schools, I will try to apply with my students, and if it doesn't suit, I will modify based on my students' abilities. I like it that way. Listen to sharing from courses then modify for my own school. Then I will share with my colleagues and discuss how we can standardise it for our own classes. (Lily)

Lily also pointed out that since she is a senior teacher, she could modify strategies learned from outside. However, she stated that new and inexperienced teachers might not be able to do so. She reflected on her own career when she was inexperienced, she found it challenging to modify strategies to suit her own students. Her response highlights the need for

capacity building especially for younger and less experienced teachers, and therefore another proposition is suggested:

> Proposition G: The focus of PD should be on building the capacity of school leaders and teachers to adapt strategies to their own contexts. Rather than promoting a 'one size fits all' approach, policy guidelines should consider the diversity of school settings and provide adequate explanations and examples on how strategies can be modified.

5.5 Conditions that support effective PD process
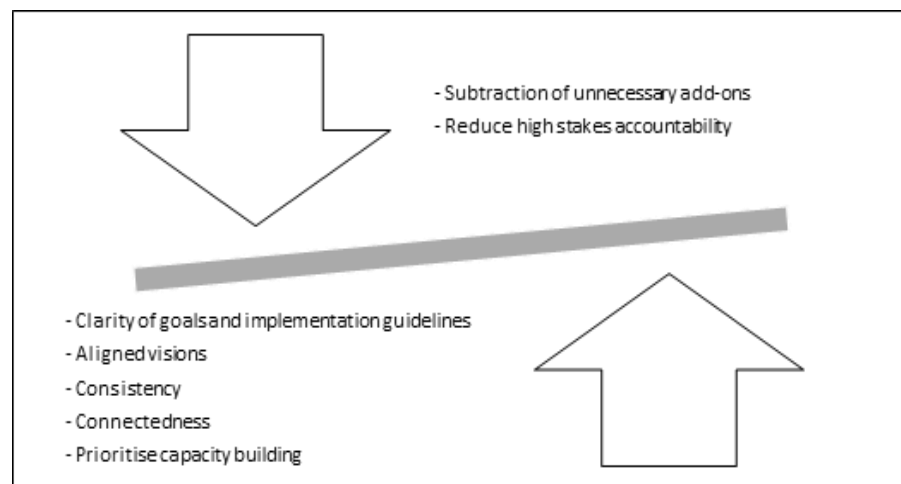
Figure 5.3: Necessary conditions to support an effective PD system in School A

Participants in both the focus groups and the discussions with middle leaders and teachers during the observational process identified excessive documentation and unnecessary add-ons as two of the most significant challenges they were experiencing (see Figure 5.3). By reducing the unnecessary workload or as the participants phrased it: *"clerical work",* teachers can focus on PD and improving practice. To reduce this unnecessary workload, the government must prioritise building the capacity of teachers and school leaders for the long term, while making accountability low stakes.

In response to the challenges that the participants discussed during data collection, it is evident that clarity of the policy goals and clearly defined implementation strategies are crucial (Figure 5.3). The goals should be *"consistent with continuous guidance"* (Ava). It is desired if the government and the school goals are aligned. Ninie, a teacher stated that:

> Let the focus be clear, especially for student achievement. We want student achievement, right? But the focus is unclear because always changing. That's it from me. I want that there must be consistency. (Ninie)

Ninie's response indicates the conflict between policy ambitions, which are broad and multiple, including the development of students' transversal and holistic skills through innovative pedagogical practices, and the pressure on schools to improve students' examination results, which continues to be a top priority. It was made obvious to the researcher that none of the FG participants thought the new educational techniques espoused by PD would successfully get students ready for exams. However, the implementation of reform efforts was required. All of the FG participants were clearly frustrated about having to execute change, yet when the examination results were poor, they were blamed for not giving quality instruction. Participants agreed that the seemingly competing aims must be aligned and made clear to the schools.

Another proposition emerges from this information:

> Proposition H: Unclear connection between goals and conflicting visions resulted in confusion among teachers. Aligning both visions is an important step, but communicating it clearly, using a language that teachers can understand easily might be key to effective delivery.

Eight inter-related propositions relevant to PD for education reforms emerged from the analysis of the case study data for School A. Table 5.3 provides a summary of these propositions.

Table 5.3: Summary of propositions for School A

Proposition A	Capacity building is enhanced through social interactions in context. School leaders strengthen their capacities through small group discussions on issues relevant to their context. By finding solutions together, their learning becomes more meaningful and relevant to their own needs. Social interaction between group members helps bring in diverse input, which they can then select, apply, and reflect on.
Proposition B	The value of TPD is enhanced through problem-solving practice. As demonstrated through the problem-solving discussions between peers or the leadership team, they modified, adapted, and applied their knowledge and skills to address issues that mattered to them. Their engagement and commitment were visible throughout the sessions.
Proposition C	As the principal pointed out, peer mentoring is an important tool for strengthening the capacity of teachers to implement reforms. According to the analysis, a group of teachers with expertise relevant to their skills has been identified to assist with implementation. Having such a group of experts can serve as a catalyst for school reform movements.
Proposition D	Teachers value TPD that helps them address student learning issues and improve their performance. As an alternative to highlighting teachers' PD needs in the first place, it might be helpful to use a backward planning approach. The first step in this process should be the identification of student needs, followed by teachers' pedagogical strategies in secondary order. It is more likely that teachers will be motivated and committed to changing their practices if they concentrate on solving student learning issues, instead of highlighting their teaching gaps.
Proposition E	The inconsistence policy goals and support influence the quality of implementation in schools. It is evident that the participants desire consistent focus and support in their effort to interpret and implement policy goals.
Proposition F	School leadership's capacity building should include specific training on school-based TPD management. Since school leaders play such a significant role in supporting and leading change in schools, their capacity building should focus on specific areas that correspond to these needs.
Proposition G	The focus of TPD should be on building the capacity of school leaders and teachers to adapt strategies to their own contexts. Rather than promoting a 'one size fits all' approach, policy guidelines should consider the diversity of school settings and provide adequate explanations and examples on how strategies can be modified.
Proposition H	Unclear connection between goals and conflicting visions resulted in confusion among teachers. Aligning both visions is an important step, but communicating it clearly, using a language that teachers can understand easily might be key to effective delivery.

Chapter 6: Case study - School B

6.1 Findings and analysis

This section summarises the major themes that arose from the analysis of School B's data. Interview participants' quotations are coded as follow:

Table 6.1: Interview and FG participants from School B (acurate as of 2023)

Participants' Code	Participants' Roles	Data Type
Ahmed	Principal	Individual Interview
Sani	SA1	Individual Interview
Gina	HOD	FG 1
Leah	HOP	FG 1
Abby	HOP	FG 1
Kathrine	HOP	FG 1
Mukhriz	HOD	FG 1
Ismail	HOD	FG 1
Gary	HOP	FG 1
Herman	Teacher	FG 1
Misnah	Teacher	FG 2
Sanny	Teacher	FG 2
Mimi	Teacher	FG 2
Eduardo	Teacher	FG 2
Rozie	HOP	FG 2

6.2 The perceptions of school leaders and teachers regarding their PD experiences

There were two key themes emerging from the data that reflected the participants' view of their PD experiences: the value they assigned to their PD experiences and the challenges they encountered in putting their learning into practice. Despite some similarities with School A's findings, School B's findings offer new insights to the study.

The value of PD (leadership perspectives)

Both the principal and senior assistant 1 of School B felt that their PD experiences were not particularly useful for them as leaders, and as reform agents in their context. However, they did feel that their teachers and students benefitted more from the mandated external PD. They both felt that ongoing PD for teachers is necessary in order to keep their knowledge and skills current, stay relevant, and be able to assist their students in learning. The principal,

Ahmed, mentioned the value of engaging teachers with PD content like differentiated teaching and learning and classroom-based assessment, as well as continuing their postgraduate studies. He believed that through PD, his teachers would be better able to meet the needs of their students and encourage academic improvement. He claimed that *"PD contributes new knowledge to the teacher"*.

On leadership PD, however, they both felt that their learning needs were not met. Ahmed saw PD as an opportunity to develop skills and knowledge for leading school improvement effectively. He was aware that numerous studies were being conducted worldwide on leadership. He believed that *"new knowledge will be discovered as education progresses. Research, theories, and studies of all kinds will be used to draw conclusions about what leaders should know and what qualifies them to lead an organisation and be effective leaders"*. In his view, PD should be able to communicate the findings of these studies to school leaders through formal courses or seminars.

Ahmed's statement shows how he viewed leadership expertise as something that is developed elsewhere, and he is only waiting to be informed about findings or admirable leadership practices that he should emulate. The term "PD" was further defined by Ahmed as "training, courses, and seminars," all of which are largely focused on transferring information and best practices from different cultures. He did, however, add that in order to guarantee effective implementation, policymakers should trial the best practices before disseminating them to all leaders and schools. They should also perform context assessments. He explained that:

> Our computers in the learning lab are unable to access the internet. Even with WiFi booster, connection issues persist. We finally put the booster to work in the school office. Students were unable to utilise the computers intended for them. In this case, the government's policy is ineffective. We fell short of their expectations when it came to the policy ambitions in schools. Too many difficulties. We are located far from the transmitter in a rural school. Not the same. The government's policies appeared to be beneficial for urban areas, particularly Putrajaya, Selangor, Kuala Lumpur, Port Klang. They failed if those were the locations of the pilot studies. Actually, those [urban] locations were where the pilot implementation was great, but they reported it by saying that a study was carried out...and including Sabah Sarawak (two states in East Malaysia). But we are aware that it won't work for Sabah and Sarawak.

Following Ahmed's argument, a proposition emerged:

> Proposition A: The success of a reform policy is significantly influenced by the context. The context may help or hinder the reform effort. Therefore, prior to implementing the policies across all Malaysian schools, a context assessment should be carried out. In order to plan for support that is tailored to their needs, it is essential to conduct pilot studies in a variety of contexts given the wide variety of school settings in Malaysia.

Ahmed claimed that ever since he was appointed a principal in 2018, he has not been asked to attend any courses or seminars that covered the most recent advances in leadership research. He revealed that his PD experiences had been focused more towards managing finance, which was not what he wanted:

> I said I don't need it. My financial management here is okay. I want what I don't have knowledge of...like how to manage teacher professional development, that's what I think I need.

Ahmed claimed that he did not receive any PD related to leadership for TPD but he did recall a leadership preparation course that he attended two years prior to his principal appointment. He thought that the course, which was organised and delivered by lecturers in IAB (the main PD provider for school management and leadership in Malaysia) was comprehensive and informative. He was made aware of the four main aspects that a principal need to prioritise: i. developing school (physically), ii. improving relationship with external organisations to secure resources, iii. establishing relationship with parents and local community, iv. enhancing academic performance.

From time to time, school principals like Ahmed were invited to listen to information or the latest changes regarding policy reform. For instance, he described how all the school heads of primary and secondary schools from the East Coast of Sabah gathered at a location chosen in one of the seven districts in the region for a briefing on classroom-based assessment and school-based assessment. He found the briefing to be disappointing because he was not able to understand everything that was said, but he was still required to use the trainers' PowerPoint slides to lead an in-house session with all his school's teachers. He identified that the quality of the delivery method, the choice of

participants, and the trainers' credibility were important factors that reduced the session's value. These challenges will be detailed later in this chapter.

Similar to his principal, Sani believed that his PD experiences were not tailored to his needs. He felt that a veteran teacher like himself had been exposed to the old educational system but now he saw the need to learn more about data presentation, and IT integration in teaching and school management:

> I am more interested in learning...IT-related knowledge. As an example, there are many new software tools available now...I've been a bit slow to learn, unlike the younger generation of teachers who are used to IT usage. We seniors are left behind...I want more exposure to IT usage in teaching and learning, including for management to facilitate school management.

The courses Sani was interested in were less frequently available. He therefore had to learn independently. Sani's response indicates that not everyone learns at the same pace and that some people need more support than others. His response also explains why the principal observed that some of his senior assistants needed to be reminded of what to do and how to do it. The principal viewed it as being *"within their comfort zones",* while Sani implied that people differ in their ability to absorb and apply knowledge. According to Sani, both his previous and current principals had advised him to apply for courses that were not cascaded by the government but rather, were offered by other organisations or educational divisions on a voluntary basis. However, he has yet to register for those PD courses offered online or at a venue in West Malaysia. Sani claimed he was reluctant to take part in online courses because he did not believe them to be effective. Furthermore, he also stated he was not prepared to devote the time, money, and commitment required to participate in voluntary PD. Sani's attitude towards PD suggests that he lacks the drive and initiative to advance professionally and that he only participated in PD when it was mandatory.

The TS25 document analysis revealed that in Modules 1 and 2, one of the main objectives was to improve the skills of the SSLT in terms of data analysis and interpretation, to enable them to encourage change and to assess their school improvement efforts. Sani's responses indicate that this objective was not achieved which leads to the conclusion that the national module delivery programme did not meet the intended objectives of developing School B leaders' capacity and professionalism.

In terms of PD for reform initiatives, both leaders thought that they needed more support than was available to them now. Ahmed felt that his PD experiences were insufficient to support the government's initiatives and policy reform. Before he could concentrate on implementing reform, he identified that a few fundamental issues still needed to be addressed:

> The basics include parents encouraging their kids to go to school and practice good behaviour. Then the internal infrastructures… Good for the purpose of providing comfort so learning takes place effectively. Teachers too feel comfortable as their wellbeing are taken care of. Yes. Wellbeing. I can't give them money, but I can ensure they feel comfortable working here, so that is my main mission. Once I achieved that, then I can move on to other things. So, I have started with the basics…and once I have done that, I feel that I am working, that my work has started. If I am unable to meet even the most basic needs, then I am still not...I am unable to directly address the academic aspect.

Ahmed's response also highlights the disconnect between policy aspirations and school context. Ahmed's response reveals that his priorities were focused on creating a favourable physical environment for work in order to gain the support or buy-in from his teachers and students. His response, however, also illustrates his lack of drive to advance professionally in his role as a school leader and his reliance on staff support in the early years of his principalship.

Both leaders' responses make it clear that they did not actively seek out PD to improve their leadership skills. The leaders of School B relied on the government-mandated PD, in contrast to the principal of School A who was actively looking for PD opportunities outside of the required government courses. They did note, however, that the cascaded PD was not enough to support their development of the leadership abilities they would require to lead the reform agenda in School B. Hence, the second proposition emerged: Proposition B: A school's ability to implement and sustain educational reforms depend critically on effective leadership. The main objective of the mandatory PD for school leaders should then be to strengthen school leadership capacities to drive the reform agenda in schools. Instead of using a one-size-fits-all strategy, there should be a process for identifying each school leader's current practices and conducting a needs analysis to ascertain the kind of capacity building they would require.

As a school selected for the TS25 training programme, it was intended that PD initiatives such as the TS25 programme would assist Ahmed in transforming his school to meet the reform agenda. However, as he took over as the principal when the training had already half-way been completed, Ahmed was unable to accomplish this. While he missed modules 1–3, he was still expected to achieve the same level of performance as those who did not miss this training. Ahmed turned to YouTube videos to fill in his knowledge gaps in TS25, and he also benefited from Madam Lisa, a SISC+ officer who regularly visited the school and offered guidance to his language teachers. Madam Lisa provided Ahmed with some valuable guidance regarding academic and instructional matters, which he considered he was not good at.

In contrast, Sani, the senior assistant 1 had been with the school since he first started teaching, 24 years ago. He was with the previous principal when the TS25 training commenced before the COVID-19 pandemic. Sani mentioned that as soon as School B was chosen to be included in the programme, the training shifted to an online platform due to the nationwide lockdown. He did not find the online training effective and in-depth. He also felt that due to the lockdown, many of the originally planned activities were postponed, affecting participants' capacity to make sense of the information received.

Together with the current principal, he was able to share information from the TS25 modules after the lockdown and complete the necessary tasks. However, during the researcher's School B observation period, two teachers stated that they had never heard of the programme. Furthermore, a focus group participant, Herman (a middle leader), mentioned that there was not a proper course to spread the information about TS25 to all teachers. And, Eduardo, a teacher, said that there was only a small amount of time in staff meetings for the current principal to briefly explain about TS25 programme to all teachers, while the details were to be read from the programme's modules. Since the current principal missed the earlier modules, he was unable to provide guidance to his teachers and relied on his senior assistant 1, Sani, to deliver the information.

However, as Sani mentioned earlier, the quality of PD delivery fell short due to online mode and the school closure during COVID-19 lockdown. All 13 FG

participants concurred that they performed tasks without fully understanding their purposes. They believed they were merely rushing to meet submission deadlines for data or reports. They perceived the PD they attended to be more like directives than courses because there was no guidance.

The contrast between the designed and actual training programme, as well as the inconsistency identified in the lived reality of teachers in School B described in the above scenario points to the poor delivery of both: national training, from the external trainers to the school leaders; and local training, from the school leaders to the middle leaders and teachers in School B. Furthermore, Sani identified that the main objective of TS25 programme and the processes involved in the modules were nothing new, with most of it being already in practice:

> But now they want more documents, more to documentation. Documenting the strategies…For example during the first introduction to TS25, there was a school (earlier cohort of TS25) that presented their sharing of how they implement TS25 in their school. From what I observed, what they presented were actually activities that we have already implemented at school level. The difference is that now the other school documented their programmes and put them all under the TS25 umbrella. From there I could see it's the same things like student involvement, activities, sports, parents…all the same things.

Sani's perception was shared by all eight participants of FG 1. Gina, a middle leader, claimed that *"there were too many programmes…too many rebranding of programmes"*. Abby, a middle leader, further elaborated that although they were rebranding of old programmes with the same objectives, they still need to go for courses, which, according to Gina *"took time, involved a process, and required reports"*. The participants felt that, like School A, the new policies that were disseminated through PD resulted in an increase in teachers' workload.

Sani indicated that although the contents might not be particularly useful, he understood the need for schools to document their progress and effort in relation to each aspect of the TS25 guidelines. This indicates that significant attention was paid to the bureaucratic processes of implementing the national programme, rather than to the quality and impact of the PD on practice in school. Based on the analysis of the programme's modules and Sani's response, the findings would suggest that the TS25's programme was intended to enhance

processes that were already in place and to strengthen school support for reform to take place effectively. This scenario describes how the government holds schools accountable for their efforts through bureaucratic management.

Based on the perspectives of the two school leaders and the triangulated data from FG interviews, document analysis and observations, three propositions emerged:

Proposition C: PD should serve as an opportunity for school leaders to gain the knowledge and skills necessary for leading school improvement effectively. The focus should not only be on financial management or bureaucratic aspects. According to the principal and the senior assistant 1, they need to build their capacity so they can lead PD for their teachers. Additionally, they must be able to collect, analyse, and present data in a meaningful way. Further, leadership PD should communicate empirical evidence from research.

Proposition D: It is important for TPD providers to consider participants' backgrounds when designing TPD experiences. Approaches that represent a one size fits all will not work in this situation. Depending on their level of understanding or ability to apply their knowledge, some participants need more support than others. The importance of tailoring support for participants with diverse abilities and needs cannot be overstated. Equally important, schools have different levels of resources to be able to implement reforms and engaging in TPD.

Proposition E: In his responses, the principal noted that he was having difficulty implementing reform initiatives in his school, as a result of missing knowledge and information. As part of the evaluation of their programmes, programme organisers could consider this factor and take measures to address the issue of key staff missing important training modules, in order to better support the national cascade model of implementation.

The value of PD (middle leaders' and teachers' perspectives)

All 13 FG participants agreed that ongoing PD is important to help them cope with the demands of the new curriculum, education reforms, as well as maintaining their quality as teachers. Sharing opportunities related to best practices in teaching and strategies to implement the revised curriculum with their students has been of particular interest to all the participants, preferably by other teachers from other schools. As Gina shared *"We do have sharing like PLC…TSS [teacher sharing session] among teachers, but it is better to gain ideas from outside."* The need for external expertise is highlighted because it is obvious that the participants felt they lacked resources in terms of knowledge and expertise.

However, when probed for more explanation during the FG session, it was found that all participants perceived their TPD experiences as problematic and unhelpful in enhancing their knowledge and skills. Misnah, a teacher, shared that they need more PD to support their understanding and ability to interpret the revised curriculum. Misnah also shared that the PD for the revised curriculum was not comprehensive enough to help her implement the prescribed changes. Her concern was that teachers were basically left alone without adequate support.

Based on the analysis of the curriculum documents, teachers were free to create their own teaching strategies and were given advice on how to use the textbooks and where to find supplementary materials. It is possible that Misnah brought attention to the difficulties teachers face when forced to create and interpret the curriculum on their own. Four other participants echoed Misnah's response, which emphasises their need for clear instructions on how to use the new textbooks and curriculum. The researcher realises that they were accustomed to being told what to do and how to do it, and they lacked the confidence to modify and create their own teaching materials and methods.

Further investigation reveals that the participants felt obligated to comply with the demands of the higher-ups who visited and checked on them. Sanny, a teacher, expressed her desire for teachers to *"not be constrained by the requirements of the top management when teaching."* As Misnah put it:

> When we were teaching in the classroom, we felt like fools because we couldn't give them what they demanded, like...because when we were trainee teachers, we didn't have a name for certain strategies.

Evidently, there is a conflict between the teacher agency and the officers who visited schools who were supposed to offer implementation support. Rozie, a middle leader, believed that teachers had to comply with far too many bureaucratic requirements. Teacher Eduardo also believed that the above-mentioned conundrum resulted from how each level of management interprets the guidelines differently.

Misnah further added that:
> Teachers asked questions to other teachers through WhatsApp or Telegram. We asked but sometimes we asked, we received more questions. No answers. Questioning and guessing. We have subject panel meeting where we can discuss but... to get the source...accurate information maybe not yet. Not sure about certain subjects that may have SISC+ right? Like our subject, Geography, we don't have.

The response above illustrates the inconsistent support for each subject. A reason for this could be that some subjects are considered high priority because they involve all students (core subjects), while others are non-priority subjects (electives), where only a few students sit public examinations in them. For example, during school case study observations, a teacher who taught an elective subject shared that she had less pressure to do action research as compared to her peers, who taught core subjects like Malay and English. Additionally, she shared that SISC+ visited core subject teachers more often, called for more external courses, and engaged in more government initiatives. In other words, teachers of core subjects received more support than teachers of elective subjects like Geography and Music.

According to the elective teacher during the observation period, another useful strategy for PD involved reaching out to other teachers through WhatsApp and Telegram groups. The subject-based groups are comprised of teachers from all schools in the district. It should be noted, however, that as Misnah mentioned earlier, sometimes asking other teachers resulted in more confusion and more questions, rather than providing accurate information.

The middle leaders in the two FG felt that their PD experiences did not develop their capacity to implement reforms as suggested by the TS25 modules, particularly in Modules 1 and 2. Based on the modules' analysis, middle leaders were supposed to gain better understanding of their roles and responsibilities, as well as being able to support TPD in the school. However, as Gina explained:

> I feel that it should be explained directly to us. Usually for courses like this, they will call the senior leaders first, then...there are some leaders who can directly deliver well and maybe some who can't. So, it's better to deliver them straight [to us]. For example, the course for subject heads, direct to the subject heads...should not have layers or filters. If there are filters, we will get less. (Gina).

The *"dilution of information"* (Kathrine, a middle leader) is an accurate description of their TPD experience, which is the result of the cascade model described by Gina's response above.

The perspectives of the FG participants lead to another two propositions:

> Proposition F: The lack of support for teachers, during and after TPD sessions hindered their efforts to implement reform initiatives in their school. The level of support for core and elective subjects differed significantly. It could be useful to have a platform for teachers to provide feedback, voice their concerns and ask further questions after the TPD. The use of WhatsApp and Telegram groups could prove to be useful. However, there is a need to have an expert or two in every group to ensure the usefulness of the platforms. The district education office could consider a 'training of trainers' programme for all core and elective subjects to function as experts in the WhatsApp or Telegram groups.

> Proposition G: The MLT should be an essential component of school reform. TPD should empower them to lead their peers. While TS25 modules are designed to assist SLT in developing the capacity of MLT to perform effectively, the findings of School B identified that this was not the case. There could therefore be a benefit to having an additional session by qualified trainers where MLT are supported to understand their roles and responsibilities. Thus, there could be two sessions, one for the SLT to enhance their ability to support their MLT, and one for the middle leaders as main participants.

Implementation challenges

The findings of School B identified several key challenges that reduce the value of PD they experienced. Some of the challenges were discussed in earlier section. The challenges are categorised into three main aspects: the process, policy planning and the school culture as presented in Table 6.2:

Table 6.2: The summary of challenges as described by School B's participants

Process	Policy planning	School culture
• Trainers' credibility • Duration • Time • Support • Selection of participants • Inconsistency • Evaluation & feedback	• Ambiguity • Disconnection • Ownership • Context assessment	• Engagement • Commitment

The findings suggest that the challenges in the implementation process were the most significant. The principal and five FG participants mentioned the problems with the trainers who delivered the PD sessions to them. The principal questioned the credibility of trainers or mentors for the TS25 programmes because he knew that some of the district mentors were previously in schools and were not successful. He added that *"when they were promoted to a position in PPD [the district education office], they were automatically appointed mentors."* Ahmed further elaborated that:

> When we requested guidance, they only sent us some tasks to do. We didn't even know whether we had done them correctly or not. There was no feedback, correction, or school visit to demonstrate. They came to school to ask if we had completed the task, then told us to submit it online. They were supposed to come to school to provide guidance in person and hands-on. But mostly they didn't guide like that. When we asked them questions, they gave us different answers.

Ahmed's responses point to the flaw in the selection and training of trainers by the Ministry, which then affected the whole process of delivery and support throughout the PD programmes. He suggested that master trainers and mentors for TS25 should be credible and recognised for their expertise. To ensure the effectiveness of school reform initiatives, Ahmed believed that it is vital to

select trainers and mentors capable of spreading knowledge and providing support. He explained that:

> Principal mentors should be former school principals known for their success and achievements. But that is not the case [in this district]. From a struggling school...suddenly become the SIP [School Improvement Partner], a low-performing school, and that's the one appointed as SIP. How can this mentor guide other established principals? Of course, they will be looked down on.' What could you guide us?' That's what's happening now. There are SIPs who have never been principals, for example. How will they mentor principals?

Abby, a middle leader, pointed out that the trainers should provide examples that participants could relate to. She stated that not all sharing from PD could be replicated with her own students:

> They shared based on their own students. If we are in this school, we talk about how to do it with our students. So that's something they need to consider. The trainers might be from an urban school, we are in a rural school. They advised use to just take the ideas they shared and modify them to suit our context...They might say that the strategies were easy to do with their students. But we need to modify those ideas, need to consider that aspect.

Additionally, Kathrine, a middle leader, also shared that for a course that involves multiple subjects, it was even more frustrating as there were no relevant examples given to aid understanding. She shared an experience of attending a PD that targeted two subjects:

> When they give examples, it will be based on the subjects that the trainers teach. For example, if the trainer's expertise is in Malay, the focus will be on Malay. There will be no examples for us who teach other subjects. So, it is difficult to relate...it doesn't reach us... For other subjects where no example was given, you have to go back to school and think about it. It is difficult to get ideas, especially with time constraints. There are so many other things to think of. Of course, there were efforts, but it takes longer time after that.

Kathrine further clarified that:

> For example, a KBAT (higher order thinking skills) course. They said KBAT and then they focused on one subject. Then they concluded that all subjects could do like what they have shared whereas actually the concept for other subjects, differs. So, like sometimes we find it difficult to relate to what they have shared with what we wanted to deliver in class.

Kathrine's response suggests that teachers need more support in understanding the concept and how it can be applied to their own subjects. Her response also

shows she did not grasp the concept during the PD session. It was implied that they would have to find their own ways of applying their learning in class.

Additionally, all of the participants discovered that it was not always simple to translate the curriculum documents or guidelines into actual actions. Rozie, a middle leader, believed that they required more instruction in customising and adapting strategies to fit their individual students.

Another two propositions emerge from the responses above:

> Proposition H: The choice of trainers affects how well participants engage and acquire both knowledge and skills. Based on School B's findings, poor choices of trainers did lead participants to lose trust and only engage halfheartedly in reform, or not at all. Trainers' credibility and the kind of training they need to be effective must be considered. A strong knowledge of content is important, but so is being able to communicate effectively and encourage active participation.

> Proposition I: Learning from TPD is only effective if teachers understand the key concept. Their learning will also need to be modified or adapted into action steps suitable for their own students. Participants might find it helpful if time is provided during the TPD session for them to discuss ways in which they can adapt or modify the strategies discussed.

6 of 15 participants talked about the significance of selecting the right participants to attend external TPD. For example, if the course's objective is to develop the capacity of middle leaders, then, instead of cascading it to the school leaders, it is better to involve the right target participants. According to Kathrine, *"we can do more and beyond because we know directly from the main source about what and how to do things."* Additionally, Abby made the point that it is crucial to avoid choosing participants who are near retirement age and who applied for transfer to another school. By choosing the right participants and avoiding possible retirement or transfer, they can function as a source of reference and provide ongoing support to their peers.

7 of 15 participants expressed concern over the suitability of the PD duration for the learning contents. Participants reported that they were confused and unable

to understand what was being taught as PD activities were rushed, shortened, and not fully inclusive. As explained by Misnah:

> The duration should be appropriate...the contents appropriate. Sometimes...always happened. They went for courses...let's say the master trainers, there are state and district master trainers. State trainers went for 1-3 weeks or two weeks course, a week. Then when they delivered in the district, it was done in one day. At school, it was delivered in one hour. The trainers mentioned that the contents that they will share with us in one day is actually a week's training, but they shortened it.

The cascade approach to PD is likely to lead to problems like the ones mentioned above. Gary, a middle leader, echoed Misnah's response: "There were times when a programme was supposed to be delivered in a week but was delivered in one day. There were so many things that were missing or overlooked. To understand, we often had to take time, and sometimes read and understand on our own." The demands that they submit implementation reports the day after PD were seen as unrealistic by all FG participants, who claimed that they needed enough time to process, plan, and put their PD learning into practice in their schools. Additionally, because most PD sessions were condensed, many essential components were left out, leaving teachers to find and learn these things on their own. All participants held the opinion that each level of educational management has its own interpretations, some of which may be muddled or have numerous inventive additions that further confused them.

The participants expressed the need for support in implementing reforms. The support they receive, or lack thereof, heavily influences their ability to interpret initiatives and translate them into actions. Two kinds of support were evidenced in the findings as presented in Table 6.3:

Table 6.3: The two types of support to enhance reform implementation (as perceived by the participants in School B

Resources	Process
Facilities	Feedback
Infrastructures	Demonstration
Knowledge expertise	Guidance
Finance	

All the participants agreed that there should be adequate resources to support implementation of reform agenda in schools. *"If you want to use a digital tool, make sure we already have it, rather than just telling stories in PowerPoint slides,"* (Abby). Misnah shared her concern that though they experienced shortened duration of PD, yet *"when the monitoring officers came down to school, their expectations were high. The trainers and the monitoring officers were not the same people. They expected that we already understood, we can do all."* (Misnah). The top management, according to the FG 2 participants, believed that teachers would be able to absorb all information at once, despite the fact that they actually need more time to process, plan, and put reforms into practice. They found it frustrating that teachers were frequently held accountable for failing to meet the trainers' and the visiting officers' expectations. *"We did it, they said it's wrong. We didn't do it, they also said it's wrong. So, we are in constant dilemma."* (Eduardo).

The inconsistency between the various levels of management left teachers feeling confused and unsure what to do. Misnah explained that:

> The curriculum calls for fun learning, but every year we were questioned about the performance of our school's exam performance. What actually the government wants? They can't have both. There must be an opportunity cost. We can do fun learning, but students won't be ready for exam.

Sani agreed with Misnah, saying that even though there are many factors that contribute to a school's quality, academic achievement, particularly performance on public exams, is still regarded as the primary determinant of success. The researcher's observation data also indicate that academic performance in public exams is valued. She saw the district coach awarded prizes to English teachers for the improvement of the English subject performance in the most recent national Form 5 examination.

Similar to his teachers, the principal also felt that it is unfair to blame the school for not performing according to expectations of external officers. He questioned the top management:

> Did they conduct an impact study to let us know that their programme was successful? PDCA stands for Plan, Do, Check, and Action, right? Check what we have done, then conduct a post-mortem. They should be aware that some principals joined after Module 4. Then they can look for suggestions to improve the delivery

> of the programme. But now they just...then move on to the next cohort or module. (Ahmed)

In order to ensure that policy aspirations are successfully implemented in schools, Ahmed argued the necessity of feedback and evaluation. However, the feedback should be useful and aimed at assisting the implementers. For Abby, a middle leader, feedback should include guidelines for the next step because *"without guidance, it is just a directive."*

When it comes to policy planning, the policymakers need to address challenges such as ambiguity, disconnection, lack of ownership and context assessment. The principal and all FG participants felt that the reform agenda and the guidelines were ambiguous and were interpreted differently at various levels of management. As Misnah pointed out earlier, the phrase 'fun learning' was vague and can be interpreted differently. Ahmed pointed out the ambiguity in the 'transformation' aspired by the government, which, for him, might differ from what the policymakers desire.

According to him, what and how to transform will depend on the context of each school; therefore, he saw the need for context assessment before embarking on the journey of transformation. Besides, according to the national educational blueprint 2013, schools would gain increased operational flexibility in managing reform in schools by 2021, which means school leaders and teachers will have some degree of ownership. However, there is the question of ownership, as raised by 14 of 15 participants, on how much freedom and flexibility each school has and what about the expectations set by the visiting officers who came with set expectations on how schools should transform.

Ahmed also had trouble getting his SSLT to work because, in his words, they were *"in their comfort zones."* They needed to be prodded to do their jobs. The researcher concluded that School B does not yet have a strong learning culture based on earlier data presentations about leaders' lack of motivation to pursue PD on their own and document analysis done during fieldwork at School B, where no school-based PD was planned since 2017. According to the TPD coordinator who just took over the position, their PD were mostly ad-hoc and in response to the external PD that they attended.

6.3 Factors influencing school leaders' and teachers' capacity to implement their TPD learning

Figure 6.1 below summarises the factors affecting teachers' and school leaders' capacity to implement PD initiatives as shared by School B's participants.
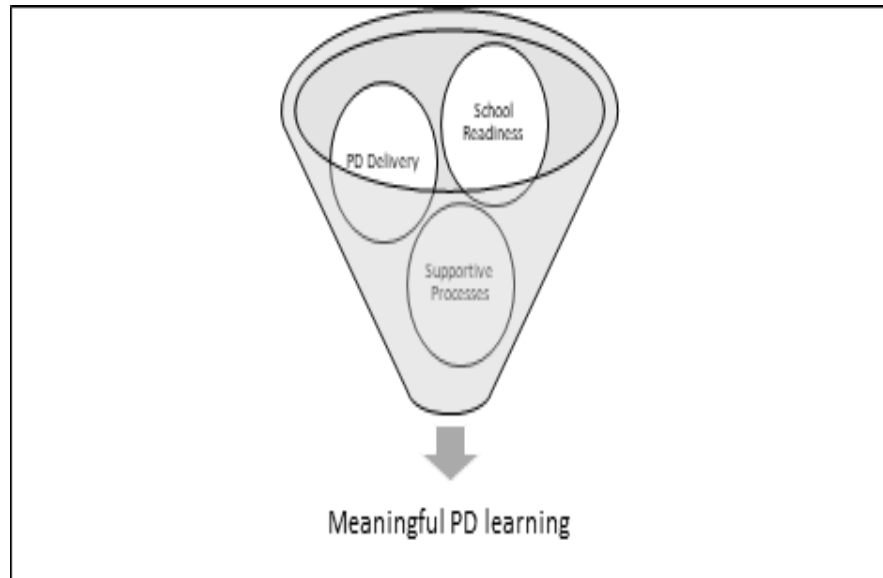
Figure 6.1: The factors that influence School B's leaders and teachers' capacity to implement PD initiatives

According to the participants, effective PD delivery, school readiness, and supportive processes all seem to have an impact on their ability to learn from PD and apply that knowledge in their context.

Clear communication of the vision and expectations of the reform agenda could lead to school readiness to get involved in realising policy aspirations. However, as pointed out by the principal, the government's visions were too fragmented and disjointed. He hoped that the decision-makers could agree on a strategy for combining all of these visions into one overarching goal. All of the participants agreed that in order for reform to happen, top management must clearly communicate the vision and expectations in order to gain everyone's support and put them on the same page. Eduardo, a teacher, asserted that the lack of specific guidelines on how the reform initiatives should be implemented in schools is the cause of the disparate expectations between all levels of educational management. He emphasised that it is preferable to have a meeting where "*all stakeholders are called together and be explained about their roles*

and responsibilities" in order to prevent misunderstandings and conflicting expectations.

In line with having a shared vision that is communicated clearly to all stakeholders, all the participants hoped that a context assessment would be done to ascertain the current capacity of schools in terms of knowledge, skills, and resources required to carry out reform initiatives successfully. The findings from the assessment would help determine the participants' readiness to implement reform in schools.

Another key factor that indicates the school readiness for reform is the nature of the school culture. As a SA1, Sani saw his role as a key informant for his teachers about available external PD. He said he would let his teachers know and encourage them to apply for various relevant PD opportunities. However, he did not hold his teachers accountable for attending those PD sessions. He also encouraged his teachers to apply for the "Excellent Teacher" position because he believed it would help them become more professional. He claimed that his teachers were uninterested when the district education office announced that a course would be offered to introduce teachers to the role and how to apply for the promotion. During field observation, a West Malaysian (WM) teacher who has been working at the school for five years claimed that many local Sabahan teachers were not interested in promotion as opposed to his state in WM where teachers would fight for it. As he perceived more opportunities for career advancement, the teacher declared that he would remain in Sabah for a while.

While observing the school, the researcher also noticed that many teachers were reluctant to stay for the FG sessions as they were in a rushed to go somewhere else. It is no wonder that Misnah shared that although teachers find PLC as useful, they do not have time for it. It becomes clear that the school learning culture is yet to be built. Unlike School A, School B leaders did not emphasise on action research or PLC. It was revealed that the principal was relying on the district coaches to support his teachers in terms of academic performance.

Ahmed also focused his priority to getting examiners to share strategies to boost subject performance in public examinations. Currently, he analysed the state and district exam performance by subject to help him identify trainers for his

teachers' PD. He would invite teachers whose subject's performance were the best to share strategies to his teachers.

The aforementioned examples show that School B does not yet have a well-established learning culture, which might have an impact on how they view reform and its importance to school transformation.

Programme Delivery

Another factor that was highlighted in School B is the TPD delivery process which comprises the duration, content and trainers' credibility. 14 of 15 participants felt that the TPD duration should be sufficient to cover the intended contents. Besides, all the participants felt that the content should be specific and delivered in manageable chunks. They also thought that the TPD design should consider various learning styles and pace of the participants.

14 of 15 participants felt that the trainers should have the relevant knowledge and expertise to be able to explain and guide them into understanding the concept and information spread through TPD. Eduardo shared that during a TPD session to explain the new speaking assessment guidelines at district level, he could see that the trainers themselves were "clueless" and unable to explain many aspects of the guidelines. Additionally, the principal shared some trainers were merely reading from the PowerPoint slides, and a few explained using a Malay dialect from a state in WM that he could not understand. He also stressed that as trainers, they need to be able to coach and mentor participants during and after PD sessions. Unfortunately, many trainers did not have the capacity to coach or mentor, not even to provide constructive feedback or guide the participants in implementation. In fact, as Misnah said, the trainers and the officers who visited them in schools were not the same, and more often than not, have different expectations and interpretations of how things should be done.

Supportive processes

All participants concurred that supportive processes should be ongoing and meant to guide them to implement reform successfully. Gary, a middle leader,

and Sani, the senior assistant 1 mentioned that not everyone learns at the same pace, and some need more guidance than others. Therefore, consistent and frequent support are keys to successful implementation. The need for timely feedback was mentioned by the principal. All FG participants also identified "time" as a crucial factor in school educational reform success. Rozie explained that *"if we want something of quality, give us time. It should not be like 'today we learn, next week (all tasks are) done'. Actually, it feels like teachers are chasing deadlines, not quality."* Kathrine concurred with Rozie, stating that *"since the PD we received were not comprehensive, there are some missing parts that we need time to discover and learn on our own."* It is evident that time is needed for the participants to think about their learning and plan on how they would implement it in their own context. Furthermore, all participants mentioned that there were many other tasks waiting at school that might delay their attempts at implementation.

6.4 Features of an effective PD programme as perceived by the participants

The participants shared some of the features that constitute an effective and meaningful PD programme for them. Figure 6.2 below summarises their perceived features of an effective PD programme:
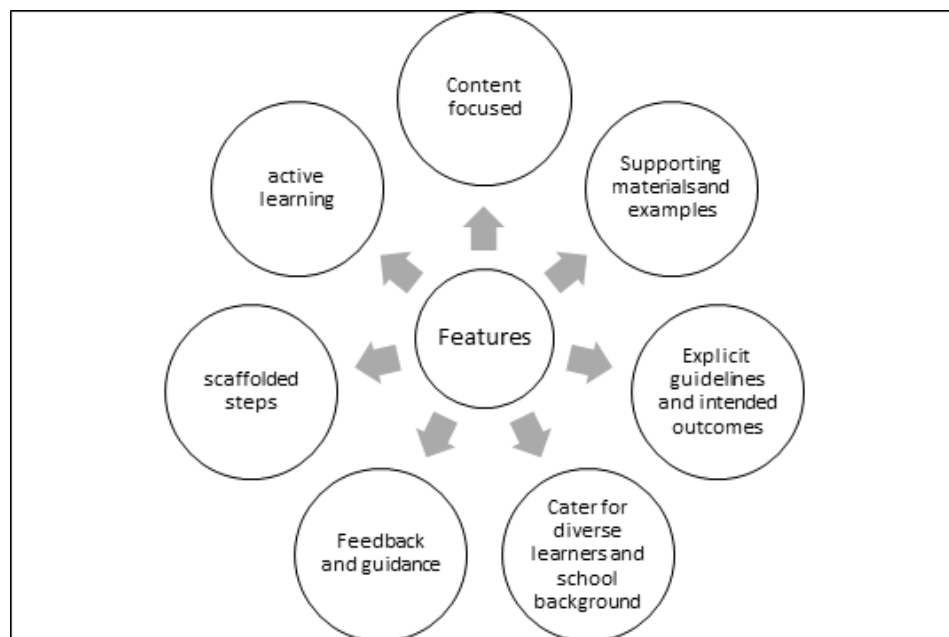
Figure 6.2: Features of an effective PD programme (as perceived by School B's participants)

Four of the FG participants wanted PD content to focus on enhancing teachers' content knowledge of the subjects that they taught. According to two Mathematics teachers, the curriculum for the subject was revised to be more challenging than the previous one. All these while PD programmes were more focused on pedagogy rather than content. Furthermore, some business-related topics, particularly those related to consumerism, were incorporated into the curriculum, which presented a challenge for Mimi and Sanny, two Maths teachers with no prior experience in business management or consumerism. Mimi also expressed concern about the types of questions that would be asked on the exam and expressed a desire to learn more about exam-related techniques to aid in preparing her students for the tests.

Six participants felt that supporting materials and examples were important considerations for effective PD. Supporting materials like PowerPoint slides or printed modules of PD that they received should be easy to read and comprehensive. Some of the terms or phrases used in the materials, in Rozie's opinion, were ambiguous or susceptible to various interpretations. Gary found the reading to be tedious and difficult. These difficulties should be removed because they interfere with comprehension. Additionally, all FG participants thought that trainers ought to use relatable examples.

According to Kathrine, Abby and Rozie, guidelines should be explicit for teachers to know where they begin and what comes after each step. *"I want that [after the PD] I know how to apply [the learning] in my real situation."* (Rozie). Rozie added that it is also necessary to take into account the various school backgrounds and workplace cultures in designing activities, guidelines and examples.

Five participants emphasised the importance of feedback and constant guidance. Ahmed thought he could be made aware of his areas for improvement and his strengths with constructive feedback and guidance. In addition, he believed that participant feedback could help the government-mandated PD be improved in the future. Ahmed also recommended using scaffolded learning steps to provide teachers and school leaders with direction.

Active learning is a key feature in School B's findings on the features of an effective TPD programme. All participants agreed that TPD will be effective if there are rooms for group activities and discussions, peer learning and demonstration by the trainers.

6.5 Conditions that support effective PD process

The findings reveal several important conditions that could either support or hinder effective PD process. Figure 6.3 summarises the findings from School B's participants.

Support system
Programme evaluation
Onboarding process
Tailoring support to context and targeted participants

Cascade approach
Bureaucracy
Disconnectedness

Enablers

Barriers
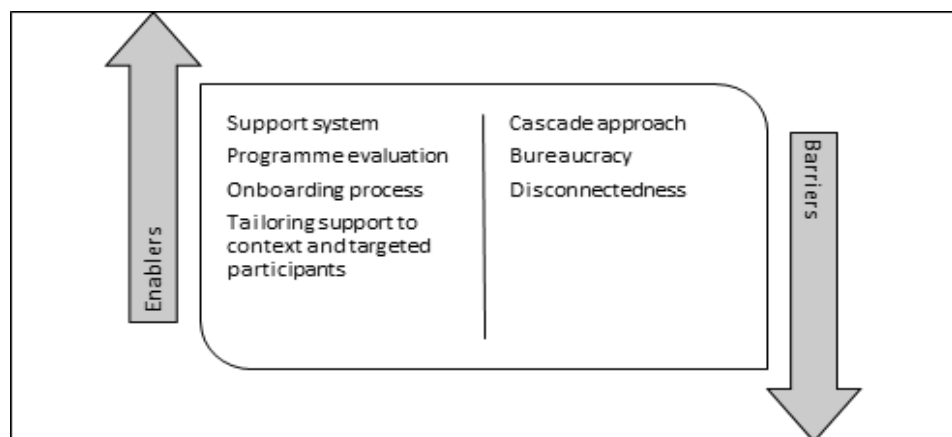
Figure 6.3: Necessary conditions to support effective PD system in School B

Support system

All 15 participants agreed that more frequent and consistent guidance from both internal and external sources should be included to the current support system. The principal hoped that, rather than just telling schools what to do and when to submit reports, the monitoring process would give them the chance to receive feedback on implementation tasks. Currently, he claimed:

> There was no feedback or correction, so we don't even know if we have completed the tasks accurately. Or they didn't even show up at school to demonstrate for us. Typically, when they arrive at school, they instruct the teachers to complete certain tasks and then submit them online. (Ahmed)

All of the FG participants agreed with Ahmed's response above, leaving them feeling "shocked" (Abby) and "stressed and confused" (Misnah, Eduardo, and Kathrine). Eduardo and Gary also mentioned the importance of the SLT's support in helping teachers implement reforms in the classroom. However, from the

viewpoints of the principal and senior assistant 1, it appears that in order to support their teachers, they themselves required more capacity building and support. It was believed that the TS25 programme, which was supposed to increase their capacity to support school transformation, was ineffective in maximising their leadership roles as reform enablers. Additionally, Gary said that *"sometimes our school leaders are supportive, but the other top management are not. They left us to find our own resources."* He was referring to the district, state and ministry levels of management. Gary's response was echoed by Ahmed who found it challenging to find resources, especially in terms of external experts. Based on the findings, the majority of their learning was not supported, leaving them scrambling to find ways to implement the policy aspirations in accordance with their own interpretations of the guidelines. Hence, a systematic and comprehensive support system will enable them to implement reform meaningfully.

Programme evaluation

Based on the principal's perspective, it is vital for the policymakers or PD providers to evaluate the effectiveness of their programmes to enable future improvements. With the data from the evaluation, the programmes could address issues like missing training days, misunderstanding, misconception and other implementation problems. The principal wished that policymakers would visit schools to observe how their planning played out in actual circumstances. He believed that the budgetary support for education should not be decreased and should cover visits from senior management officials.

Onboarding process

All FG participants agreed that there should be measures taken to ensure teachers' support for the government's desired policy reforms, particularly with regard to the TS25 programme. The objectives and next steps should be communicated to reform advocates in schools much earlier than when the programme should actually be put into action. Teachers would feel more in control and supportive of the reform movement after completing the onboarding process because they would know what is expected of them and how to mentally get ready for the challenges.

Tailoring support to context and targeted participants

As previously discussed in earlier section of this chapter, tailoring the support to the context and targeted participants would enable reform process to be implemented successfully in schools. All 15 participants believed that each school is unique, and the needs are diverse. One size fits all approach would not help them to implement reform effectively.

A number of challenges to school reform were also identified by the findings. First, the participants noted the excessive workload caused by the bureaucratic management process that made it difficult for them to concentrate on the reform agenda. Second, there is the cascade approach, where the information is transferred through multiple layers in a way that either dilutes it or allows for creative additions that only increase workload. Lastly, there is a lack of coordination or a disconnect between the different levels of education management in terms of expectations and understanding of the policies.

A final proposition emerges from the findings:

> Proposition J: The onboarding process increases teachers' and school leaders' understanding of and support for proposed policy changes. Therefore, before beginning any PD or capacity building activities, any reform agenda should include the onboarding process.

10 inter-related propositions relevant to PD for education reforms emerged from the analysis of School B's case study. Table 6.4 provides a summary of these propositions:

Table 6.4: Summary of propositions for School B

Proposition A	The success of a reform policy is significantly influenced by the context. The context may help or hinder the reform effort. Therefore, prior to implementing the policies across all Malaysian schools, a context assessment should be carried out. In order to plan for support that is tailored to their needs, it is essential to conduct pilot studies in a variety of contexts given the wide variety of school settings in Malaysia.
Proposition B	A school's ability to implement and sustain educational reforms depend critically on effective leadership. The main objective of the mandatory PD for school leaders should then be to strengthen school leadership capacities to drive the reform agenda in schools. Instead of using a one-size-fits-all strategy, there should be a process for identifying each school leader's current practices and conducting a needs analysis to ascertain the kind of capacity building they would require.
Proposition C	TPD should serve as an opportunity for school leaders to gain the knowledge and skills necessary for leading school improvement effectively. The focus should not only be on financial management or bureaucratic aspects. According to the principal and the senior assistant 1, they need to build their capacity so they can lead professional development for their teachers. Additionally, they must be able to collect, analyse, and present data in a meaningful way. Further, leadership PD should communicate empirical evidence from research.
Proposition D	It is important for TPD providers to consider participants' backgrounds when designing PD experiences. Approaches that represent a one size fits all will not work in this situation. Depending on their level of understanding or ability to apply their knowledge, some participants need more support than others. The importance of tailoring support for participants with diverse abilities and needs cannot be overstated. Equally important, schools have different levels of resources to be able to implement reforms and engaging in TPD.
Proposition E	In his responses, the principal noted that he was having difficulty implementing reform initiatives in his school, as a result of missing knowledge and information. As part of the evaluation of their programmes, programme organisers could consider this factor and take measures to address the issue of key staff missing important training modules, in order to better support the national cascade model of implementation.
Proposition F	The lack of support for teachers, during and after TPD sessions hindered their efforts to implement reform initiatives in their school. The level of support for core and elective subjects differed significantly. It could be useful to have a platform for teachers to provide feedback, voice their concerns and ask further questions after the TPD. The use of *WhatsApp* and *Telegram* groups could prove to be useful. However, there is a need to have an expert or two in every group to ensure the usefulness of the platforms. The district education office could consider a 'training of trainers' programme for all core and elective subjects to function as experts in the *WhatsApp* or *Telegram* groups.
Proposition G	The middle leadership team (MLT) should be an essential component of school reform. TPD should empower them to lead their peers. While TS25 modules are designed to assist senior leadership team (SLT) in developing the capacity of MLT to perform effectively, the findings of School B identified that this was not the case. There could therefore be a benefit to having an additional session by qualified trainers where MLT are supported to understand their roles and responsibilities. Thus, there could be two sessions, one for the SLT to enhance their ability to support their MLT, and one for the middle leaders as main participants.
Proposition H	The choice of trainers affects how well participants engage and acquire both knowledge and skills. Based on School B's findings, poor choices of trainers did lead participants to lose trust and only engage half-heartedly in reform, or not at all. Trainers' credibility and the kind of training they need to be effective must be considered. A strong knowledge of content is important, but so is being able to communicate effectively and encourage active participation.
Proposition I	Learning from TPD is only effective if teachers understand the key concept. Their learning will also need to be modified or adapted into action steps suitable for their own students. Participants might find it helpful if time is provided during the TPD session for them to discuss ways in which they can adapt or modify the strategies discussed.
Proposition J	The onboarding process increases teachers' and school leaders' understanding of and support for proposed policy changes. Therefore, before beginning any TPD or capacity building activities, any reform agenda should include the onboarding process.

Chapter 7: Case study - School C

7.1 Findings and analysis

This section summarises the major themes that arose from the analysis of School C's data. participants' quotations are coded as follow:

Table 7.1: Interview and FG participants from School C (accurate as of 2023)

Participants' Code	Participants' Roles	Data Type
Alvin	Principal	Individual Interview
Maniam	SA1	Individual Interview
Mahmud	HOP	FG 1
Mary	HOP	FG 1
Wendy	HOD	FG 1
Ghani	HOD	FG 1
Bob	HOP	FG 2
Hasnah	HOD	FG 2
Zamani	Teacher	FG 2
Athirah	Teacher	FG 2

7.2 The perceptions of school leaders and teachers regarding their PD experiences

While School C's findings share some similarities with those of School A and B, they also add new perspectives to how staff perceived their PD experiences.

The value of PD (leadership perspectives)

Like School A and B, both the principal and senior assistant 1 recognised the importance of PD for their teachers. When the researcher asked about their own experiences, both school leaders mentioned that PD enabled them to lead their teachers better in implementing educational reforms. Alvin, the principal, believed that PD is for *"self-development"*. He viewed PD as an opportunity for him to equip himself with knowledge and skills to better guide his teachers. He recounted an experience when a national policy demanded all schools in Malaysia utilised Frog Virtual Learning Environment (VLE) as a platform for ICT integration in the classroom. In that regard, Alvin reflected that having recognised that the teachers did not want to adopt this new initiative, he had undertaken the PD first and then disseminated the knowledge and understanding to staff and pupils, so that:

> the teacher will think that...our principal is very knowledgeable then since he knows already and...even the old person... can learn about the new things...the new technology ... We have to know first, before they know. So, we lead them first, then later on they will lead the student (Alvin).

He emphasised the importance of a school leader being able to assist teachers in putting policy initiatives into practice. However, his response also suggested that the professional development his teachers received was ineffective because there was not enough guidance and support to enable them to put their knowledge and skills into practice. As for himself, he had to find alternative ways to learn, such as bringing in external experts to give him the experiences he needed to understand the policy and assist his teachers in implementation.

Like School A's principal, Alvin's response exhibited self-efficacy behaviour. He was sure he could help his teachers implement policy initiatives if he kept learning the necessary knowledge and abilities. Additionally, Alvin read books on leadership topics, for instance, at the time of the visit, he was reading a book by Stephen R. Covey - The 7 Habits of Highly Effective People - which contrasted with School B's principal, who waited for leadership PD opportunities instead of seeking them out. Indeed, Alvin's office and the hallway leading up to it both had several framed leadership quotes with related images including, "Leadership: Real Leaders Are Ordinary People with Extraordinary Determination." He mentioned that he had read a great deal of leadership-related books and that he continued to grow professionally by reading and putting what he learned into practice. There were instances when the information presented in the books did not match his realities, but he would reflect on the situation and adjust his course of action as necessary. He claimed that being well read and having a variety of strategies at your disposal were both beneficial, to serve as a 'guideline' for him *so that [I] can get some knowledge how to lead the school."*

Alvin's response also revealed that there were scarce opportunities for leadership PD, as he had to resort to learning on his own. According to him, most PD focused on pedagogical content knowledge and policy initiatives that the Ministry thought school leaders should know in order to support the reform agenda in schools. In supporting his teachers, he encouraged them to engage in action research (AR).

He was, and is, still involved in AR. He has also spoken about his research at district, state, and international levels. He believed that through AR, teachers can use different approach and method to be applied in the class. Because the students will say sometimes, they will say: oh aiya1 boring-lah2. Pelajaran ini boring betul. ['This lesson is so boring'] So I want the teacher to apply something new to our students.

His response revealed a misconception, which will be discussed in more detail later in the chapter.

Similar to the principal of School A, Alvin maintained that he encountered resistance from his teachers, but he was able to overcome this to produce an AR journal publication every two years. This practice had become customary since the previous principal began publishing AR journals at School C when Alvin was still a SA1. He mentioned that:

> This action research is just an innovation of our teaching method. In fact, most of the time you already implemented in your classroom teaching. Just you didn't document it...no documentation.

Alvin, therefore, advised his teachers to *"document the things that you have implemented in the classroom"* and to do it "formally." He emphasised that he was not pressuring his teachers to conduct AR, but that he had been able to uphold the practice through mentoring, initiating this practice with key staff. He identified that he first asked his school's SSLT to set a good example for his teachers to follow. Additionally, he identified several teachers who were willing and ready to pave the way for AR. However, contradictory data arose from informal conversations during field observation in School C, which is discussed later in the challenges section. Additionally, similar to School A, misconceptions on AR were also evident in School C.

Alvin believed that as a principal, he needed to serve as a good role model for his staff and students in order to lead change. He stressed that as the most important person in the school, a principal should be able to change first. He shared that:

> If we don't do first, show the good example as a role model to the student and to our teachers, they won't do one. They won't do one [They won't do it for sure]. Pengetua hanya pandai cakap saja. [The school's principal only talks and does nothing.]

Alvin was clearly in charge of his own PD, and he had three main goals: first, to assist his teachers in implementing reforms; second, to guarantee that the students in School C receive the best teaching possible from his teachers, which would improve their exam performance as well; third, to become better informed as a leader of change. It can be inferred that he did not wait for the required PD because, to him, those externally mandated PDs were just highlighting the changes in policies; he had to find his own way to fully understand them so he could support his teachers. It is also clear from all his responses that he had no complaints about the mandated PD that he received, in the same way as the Principal of School A, who believed that they were only implementers and had to support any reforms entrusted to them.

The senior assistant 1, Maniam, also shared Alvin's view on leaders being the first to learn and guide the staff. However, he was focusing more on achieving better performance in public examinations. He stressed the importance of PD:

> We have to achieve...our main KPI [key performance indicator] is a performance in a national level for certain...official exam.So by getting the knowledge of PD so we can apply in our daily tasks and then share with the students and teachers, especially teachers...to run like for example...PLC, professional learning community. Even though the teachers are not...some of them are not really...well versed in their...haven't mastered their subjects, so we, I'm as a leader I guide them, to observe...time to time...go as a group and...observe those teachers who have...those who have very experienced knowledge ah while they are teaching. So they will get a variety of idea to conduct teaching...not based on a textbook and so on. So things will be more interesting for the student and so on.

Maniam was also concerned about teachers who were asked to teach subjects in which they lacked expertise in or novice teachers who were still learning to bridge theories into practice. He believed that these teachers needed PD even more, and he saw the need to guide them through various forms of on-the-job PD, such as PLC and observing experienced teachers. Like Alvin, he too believed that PD would enable him to guide the teachers and the success of the school. He thought that PLC tools like 'Learning Walk' and 'Video Critique' were good strategies to support teacher development. He claimed that information gained from PLCs could be used to offer feedback for teachers:

> As a leader I can call and then we can talk like...having a coffee break, and then we open up the video and we can share the knowledge

where does the teacher went through I mean...have a good idea of delivering...topics at the same time we can...like...telling the teacher that where she should he or she should improve...particular area.

However, like School A, there is a misconception evident here in how Maniam understood PLCs. Maniam's response demonstrated how PLC implementation lacked a systematic, data-focused framework. Furthermore, he used PLC as a one-way means of communicating with teachers, outlining their areas for improvement and their strengths. His PLC's vision was devoid of the data-driven collaborative and reflective processes and was more akin to supervision, rather than a process that gives teachers agency on matters that are significant to them.

Maniam mentioned another reason for the importance of PD: it helps teachers become more adept at *"relating one curriculum to another curriculum."* Teachers were expected to use cross-curricular teaching to advance students' learning in accordance with Module 10 of the TS25 programme. But Maniam found that many of his teachers were struggling to do so.

Like Alvin, Maniam did not respond negatively to the PD programme and initiatives that were put forward by the government. He realised that the TS25 programme was an ambitious project with too many activities and a broad scope. But he interpreted it favourably. He believed that all the elements highlighted in TS25 modules were targeting school-wide transformation and thinks they already giving such a huge...development I mean PD for the teachers. Like me I can see as an admin so whenever there are projects they give, so do this, do that. So we will have a small AJK [committee] so we have to choose...the internal teachers itself to produce a project.

Despite his positive interpretation of the initiative, his response showed that there was a lack of support and, as was discussed with the second case study school in Chapter 6, the school was given directives on what to do, rather than engaging in supportive processes that would ensure understanding and enhance capacity to implement reforms. However, as Maniam mentioned in his response above, School C had a working team to address problems collectively. Additionally, the senior school administrators were equally invested in training and assisting the teachers. As a result, School C was selected as a benchmark

school for the TS25 programme after the district education office identified some of its best practices, particularly with regard to their AR and good leadership practises. At the time of the interview, both school leaders were busy getting ready for a visit from a group of newly appointed TS25 senior secondary school leaders from Sabah's east coast region. The researcher noted that throughout the day, both school leaders were engaged in various discussion sessions. The principal was also observed guiding teachers and students as they prepared for the visitors. In so doing, the school was playing a lead role in supporting the implementation of national policy in other schools.

Due to the COVID-19 pandemic, Maniam mentioned that TS25's trainings were primarily conducted online. As with the previous two schools, this meant that much learning was dependent on staff using their own initiative. He said, *"We have to answer, we have to read that...module so directly the input will get to admin, principal and assistant principal and some of that...what do we call that head of department."* It should be noted, though, that School C's senior leaders attended every module and relayed their knowledge to their MLT and teachers in due course. He believed that as adult learners, SSLTs and MLTs could learn independently, with or without guidance from external coaches.

The researcher concluded that School C's senior leaders pro-actively sought out and provided PD opportunities for both them and their teachers, in order to make sense of the reform agenda for their schools. The school's SSLT were in a position where they could influence their teachers' learning while also paying attention to their students' exam results. According to the FG participants, this school is a high-performing institution that wants to keep up its reputation as such. The school continues to rank among Sabah's top ten schools for SPM4 performance in 2022.

Based on the analysis above, two propositions emerge:
> Proposition A: The ability to overcome the challenges of learning from PD was demonstrated by both participants. They both showed a desire and commitment to learn as well as a sense of self-efficacy. These two traits would be extremely helpful for school leaders, especially in a complex and challenging policy environment like Sabah.

Proposition B: School C's recent academic success and selection as a benchmark school for the TS25 programme are indications that both its reform initiatives and exam performance were successful. The success seemed to be generated by the practice of senior school leaders, who were actively seeking ways to support teachers in implementing reforms and creative pedagogies. Leveraging school leaders' awareness, communication, influence, and learning agility appears to play a significant role in establishing those successful conditions.

The value of PD (middle leaders' and teachers' perspectives)

All focus group (FG) participants concurred that PD is necessary to meet the needs and challenges posed by their students, as well as the constantly evolving educational landscape. Being in a high performing school, all FG participants shared that they felt pressure to keep up its excellence, so they looked for ways to enhance their instruction and engage their students in the learning process. Additionally, during observations, some teachers and all FG participants stated that the principal's primary concern was academic performance. They mentioned that Alvin, the principal, did not give high priority to projects or initiatives that did not directly affect the academic progress of the students. All FG participants also shared that their principal placed much emphasis on reducing disruptions to instructional times and that teachers should be able to engage their students in learning.

Mary, a middle leader, mentioned that teachers need to continue updating their knowledge and gaining trust from their students:

> We must not fall behind, which means we must keep up with the rising popularity of social media for example, so that we can respond to questions from our students. If not, they will stop believing in us.

Mary's response was echoed by another middle leader, Mahmud, who asserted that because School C has a culture of excellence, its students were more competitive and eager to learn new things from various sources. Unlike his previous rural school where students had little access to a variety of resources and relied primarily on the teachers, the students at this school were not solely dependent on the teachers. He shared that the students here *"have other*

resources" to help them learn. According to Mahmud, if teachers want to engage their students in classroom learning, they need to use various teaching resources that *"would help students understand better and cultivate a love of learning."*

Bob, a middle leader, concurred that teachers need to continue learning to mould future generations that are fit for the current context. The diagram below (Figure 7.1) summarises the dynamic of School C in terms of teachers' motivation for TPD:
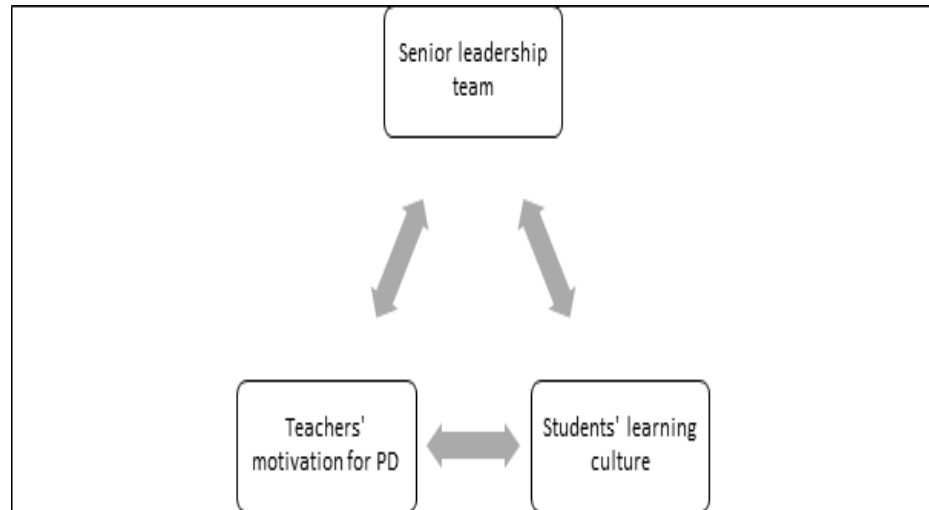
Figure 7.1: The factors influencing School C's teachers' motivation to engage in CPD

As shown in the diagram above, the interaction between the SSLT and students' learning culture was what inspired School C's teachers to participate in CPD. The school's leaders were able to gain the teachers' support by focusing on the interests of the students because of the high performance of the institution.

School C's leaders had clearly communicated their vision and missions to the teachers as evidenced by these responses:

> School C is different every day. We are aware of the underlying meaning behind the statement that 'school is different every day,' and we strive to adapt to new changes. Today, we must improve, and our goal is to be better... (Bob)

> "Our principal is very...he has his vision and mission...what he wants he already planned so we just follow." (Mary)

Alvin wanted his teachers to ensure that School C is not boring and that there is always something interesting for their students to learn and develop every day. For this reason, the motto "*School C is different every day"* was chosen.

7 out of 8 FG participants acknowledged that TPD had helped them meet the needs of their students, stay current with technology in the classroom, and stay relevant, particularly in times of crisis like the previous lockdown caused by COVID-19. In contrast, one participant openly admitted that he was soon to retire, and he could no longer engage in TPD. Zamani, a teacher, said that there were too many changes, and he could not cope, especially in harnessing technology. He was eager to retire after 36 years of service. However, Hasnah, a middle leader, wished that when it comes to TPD, all subjects would receive the same attention rather than just core subjects that were important for public examinations. Ghani agreed with her suggestion, believing that there were other subjects that received less TPD opportunities in terms of pedagogical content knowledge and ICT integration.

Despite acknowledging the significance of TPD, all FG participants described aspects of their experiences as problematic. On the one hand, they found that learning from one another was useful as they were able to identify strengths and weaknesses, and one new teacher benefited from the new teacher mentoring programme. On the other hand, there were too many challenges that impeded their learning process, including PLC and AR implementation. The irony is that both PLC and AR were perceived as extras and burdens rather than as central strategies for school-based TPD.

Information from the school's TPD coordinator and an analysis of TPD-related documents reveal that the PLC initiative was conducted in accordance with a schedule planned by each subject head, specifically to satisfy the state and district education office's request for PLC reports twice a month. Wendy, a middle leader, discussed how challenging it was to organise a session for all teachers because of the double-session system of schooling. In addition, they spent most of their Saturdays participating in extracurricular activities as the students' advisors. When TPD was urgently needed, they had to make special arrangements: *"whereby the morning teachers would stay after school hours, while afternoon teachers would come in the morning."* (Wendy)

Fridays would have been a better option for PLC because the morning session ended before 12 pm and the afternoon session started at 2 pm. Wendy said that any brief PLC or sharing session could be used during the longer interval

between sessions. Wendy, however, remarked, *"Fridays would not be ideal because Muslim male teachers had to go for Friday prayers. They would have to wait a little longer for everyone to return from the mosque."* Nevertheless, the English panel of which Wendy was a member, did not have a problem to conduct PLC on Fridays because:

> We are all women so we are not obligated to go to the mosque so we could have our PLC or any PD session during the two-hour gap between morning and afternoon sessions. That's why we had more PLCs than other subjects (Wendy).

Her remark served as further indication of the PLC being understood as meetings and sharing sessions which they could just complete in two hours. The researcher also examined their reports, which focused primarily on discussions about marking exam papers or teaching strategies. The reports were written in just one page with the emphasis of having several photos as evidence of the session. When the researcher requested the file containing all the reports to analyse, the PLC coordinator responded that the file was disorganised and that it had been difficult for her to obtain the reports from all the subject panel heads. She had to keep reminding them to prepare the report and submit to her. There were times that she had to do it for them. An issue that the researcher noticed from her response was the perceived credibility of the reports. It is clear that PLCs and the reports of PLCs was done just as an administrative obligation for the sake of fulfilling the demands of the policy initiative.

The lack of a consistent structure for the school's PD hours was another issue that emerged from the analysis. Wendy said there was no set time for PD during school days; rather, teachers or members of each subject panel had to find their own time to do it. So, one of the main problems, not just in School C, but also in School A and B, was the difficulty in finding the appropriate time for PD. Teachers may be reluctant to commit to or participate in PD because there were not any confirmed hours available. If there was a sudden call for PD, teachers felt that they had to sacrifice their free time for it. One proposition emerges from this finding:

> Proposition C: Due to the absence of set hours for PD integrated into the school system, PD sessions were not guaranteed, which may account for teachers' lacklustre participation in PD. It may be possible to address the

readiness of teachers to participate in PD by including a number of set times for it during school hours in a yearly plan.

The TPD coordinator also explained that TPD activities were conducted when there was a need for in-house sessions, particularly to disseminate information from cascade model trainings. Therefore, their TPD was mostly ad-hoc, depending on external demands. They did have a number of programmes to enhance teachers' capacity as exam markers or materials that would equip teachers to teach for exams and classified those as PD. Other than that, AR and other forms of job-embedded TPD like new teacher mentoring, district coaches' coaching of specific teachers, became priorities.

However, according to several teachers during the study's observation, not everyone was involved in AR every year. The principal had mandated that each teacher would participate once in every two years, except for new teachers who had to engage in AR when they reported for duty in School C. Marisa, the teacher in charge of AR, informed the researcher that every year, she would discuss with the school's SSLT to prepare a named list of teachers who would be conducting AR for the current year. The principal's claim that 'AR should not be forced upon teachers' seemed in direct contradiction with this information.

In addition, Marisa's information suggests that there were just two briefing sessions for AR participants, instead of the mentoring sessions the principal discussed. Firstly, before the teachers embark on the AR process, a briefing was conducted by Marisa to explain the process and to offer some examples of previous AR journal reports. A second briefing was scheduled when the teachers had completed their research, and it was time to write the report for the school's AR journal. The guidelines for writing an AR report, which could be 6 to 12 pages long or longer if the project involved more cycles, were explained to teachers during the second session. Before teachers' AR reports were published, Marisa and the principal said that corrections may be suggested on what they should improve.

Several new teachers the researcher spoke with while conducting field research revealed that they were still unsure of what to research and that they found this to be the most challenging step. The challenge, for these teachers, was naming

their solution to a problem they had identified with students' learning. Based on the responses from the teachers and FG participants, the researcher came to understand that one misconception about AR was the belief that AR had to involve "innovation", as the principal had stated. It can be concluded from an analysis of the findings that teachers in School C found AR challenging because of the "innovation" element and the report-writing part.

Additionally, AR also seen as primarily an individual rather than collaborative activity which would make the process more challenging for teachers. Furthermore, the main component of AR, reflection, was not present in teachers' AR process. According to an analysis of the school's AR journals, the AR process was more akin to carrying out an innovation project where teachers identified a problem and then suggested a method or item, which was then tried out in their classrooms. The reports would inform the effectiveness of their techniques or products with pre- and post-test results.

Besides time constraint and misconception, several other challenges surfaced while teachers experienced PD as depicted in Figure 7.2:
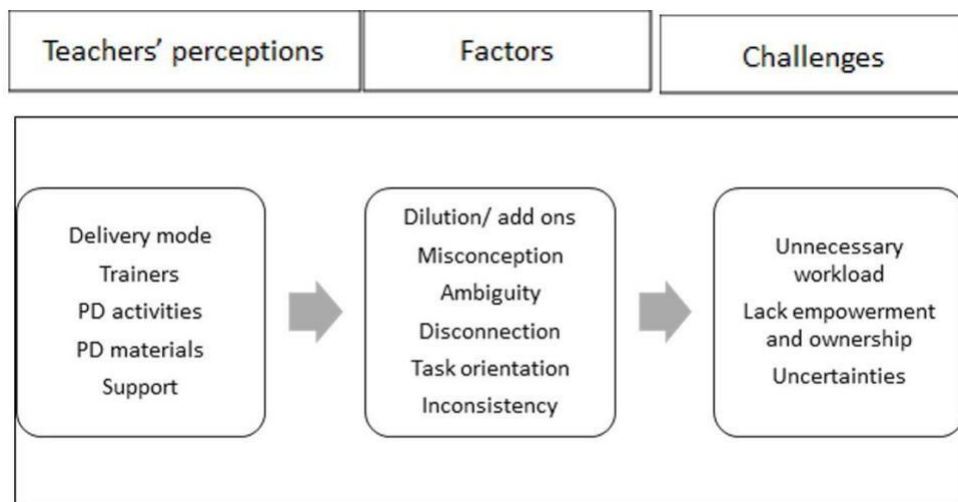
Figure 7.2: The summary of challenges as perceived by the participants in School C

Due to their busy schedules, finding time to gather TPD participants was challenging and therefore, they leaned heavily towards briefing sessions rather than actual TPD collaborative activities. Four FG participants reported that many PD sessions, including the TS25 trainings, were delivered ineffectively.

According to Wendy when teachers came back from external TPD, they would share materials via WhatsApp and Telegram *[smartphone applications] "and expect us to read. Would the teachers read when there were far more interesting things to look at or many other things to solve...and those materials would stay buried in our handphone."* She also mentioned that *"in order for PD to be successful, there should be...time to sit down together and discuss it"*.

Furthermore, all FG participants concurred that during the COVID-19 national lockdown, PD shifted to online platform, and that the trainings were insufficient to guide them: "the duration was shortened, and we received greatly diluted information" (Wendy). The unreliable internet connection and choice of trainers made the situation even worst. All FG participants acknowledged that they were not sure where to begin. Moreover, all FG participants in School C felt that the frequent policy change was a challenge, which increased their level of uncertainty during the implementation process. Ghani, a middle leader, highlighted the inconsistency by giving an example: "when we look at our education system now, it seems inconsistent, for example, for a while we have PT3 then we don't. After that we have another new one, then suddenly now it seems we are going back to PT3-like [exam] but it's not called PT3". Mary, a middle leader, believed that the frequent policy changes were a result of a changing political environment. Ghani agreed with her suggestion that "politics should not meddle with education".

To address uncertainties, groups were formed by the school's SLT, and together they read to interpret the modules and completed the tasks assigned to them. However, interpretation of the requirements of the modules varied at every level of educational management, similar to the findings from Schools A and B, which either were diluted or added on to the intended policy aspirations. As a result, PD was perceived as extra work by all FG participants because it added to their workload. The way PD was delivered also left them with uncertainties. As Wendy explained "we don't want to be told 'oh you do like this, like this and like this. We want to know what and how to do it, then we can do it. If not, we would be 'blur'." There seemed to be a contradiction in Wendy's statement. The fact that she was unhappy with being told what to do suggests that she was seeking some degree of autonomy over the implementation. In contrast, she would like to be informed about what the reforms will involve and how they will

be carried out. It is evident from this information that, although participants wanted autonomy over the implementation, they were helpless due to a lack of knowledge and expertise. The crucial question is, given their lack of intellectual capacity to successfully implement the reform programme in schools, are they prepared to exercise more autonomy? This topic would be discussed further in the discussion chapter.

The researcher realises that despite being a TS25 benchmark school, School C received less implementation support. Despite the absence of external support, the school SSLT's insistence on taking action and their willingness to learn first served as an impetus for success.

Conversely, the researcher identified from the data analysis that teachers were left to handle the implementation of policy initiatives, while TPD delivery was primarily concerned with spreading policy initiatives. There is a sense that the government wants to enable schools to customise the policy according to their own needs. The findings, however – as discussed in the next chapter - suggest that schools were unable to fully meet the government's aspirations, hampered by guidelines that were unclear and information that was diluted, leading to gaps in teachers' knowledge and abilities to implement national policies effectively for their context. Another proposition emerges from this scenario: Proposition D: Ownership was regarded as a crucial component in winning the support of school administrators and teachers for a reform agenda. Giving ownership without the necessary knowledge and abilities to carry it out, however, would lead to policy implementation failures. Before giving implementers ownership of policy implementations, it is crucial to assess their readiness in terms of knowledge, skills, and resources.

7.3 Factors influencing school leaders' and teachers' capacity to implement their TPD learning

Several factors influenced the school's capacity to implement PD learning as identified by the participants. The factors are summarised in Figure 7.3.
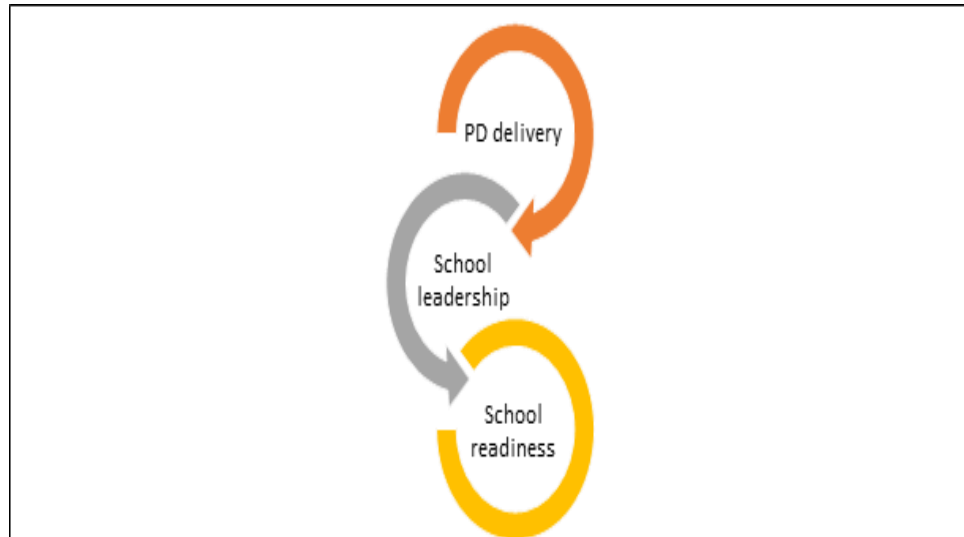
Figure 7.3: The factors that influenced School C's leaders' and teachers' capacity to implement PD initiatives

The findings point to the significance of TPD delivery, school leadership roles and school readiness as factors that could support or hinder effective implementation of PD initiatives in school C.

Programme delivery

As with the first two schools, School C believed that how TPD was delivered would have a significant impact on their ability to apply what they learned in the classroom. Three members of the FG group made the comment that the trainers should be experts rather than just any random senior teacher. Five FG participants also believed that the time allotted for PD should be adequate to ensure understandings rather than leaving the participants to complete readings and figure out how to complete the tasks.

Regarding online learning, all the participants felt that while they had the chance to participate in PD at the district, state, or national level without having to travel, they encountered unstable connections to the internet that made it difficult for them to concentrate on the information being delivered.

Besides the mode of delivery and the choice of trainers, three FG participants also stated that the content should address the gap in teachers' knowledge and skills. Hence, the contents should be able to address the needs of the PD

participants instead of randomly picking anyone to attend. According to Bob, a middle leader:

> For example some teachers lack in terms of ICT skills so focus on that. Then there are teachers who are not teaching their subject of expertise, like me, I am not trained in Geography teaching but have to teach the subject. So look at the needs of the teachers. If ICT [skills] are lacking then conduct an ICT course

This finding leads to the next proposition:

> Proposition E: A crucial aspect of planning for the delivery of PD is matching the material with the audience to guarantee relevance and teacher development. In order to properly plan for PD, PD providers should take into account their target participants' backgrounds.

School leadership

School leadership is another key factor influencing effective implementation of TPD learning in schools. Both Alvin and Maniam identified the need for school leaders to lead the team by equipping themselves with appropriate knowledge and skills about the reform initiatives as well as enhancing academic performance. One crucial element that was frequently disregarded and did not receive the attention it deserved was the role of the MLT. That said, three participants, including the principal, made passing mention of the need to elevate MLT in order to have an impact on other teachers in the classroom. The principal thought that getting his SSLT and MLT to be role models would gain their teachers' trust in implementing the reform initiatives. Similarly, Bob believed that subject panel heads should play a significant role in leading PD for teachers:

> We must be aware of our duties. School's SLT won't be able to remember everything. As a subject head, I am aware that I play a key role. Although we have senior school leaders, subject heads are the closest to teachers because we teach the same subject. For the top management, they would cover more general aspects.

However, all middle leaders who participated in FG interviews identified that they did not receive PD related to their roles as MLT. This was in direct contrast with one of the TS25 modules which specified MLT as their target participants. The FG participants shared that they received information on what to do mostly from their direct superiors and also from years of experience. Wendy felt that

there should be a specific course to develop their capacities as MLT, instead of being told what to do. She felt that what she did now "it is ineffective, just mediocre. It would be great to be trained properly."

School readiness

The findings from School C suggest that school context and in particular readiness to embrace a reform initiative is another crucial factor to take into account. The data suggest three elements to ensure school readiness as depicted in Figure 7.4.
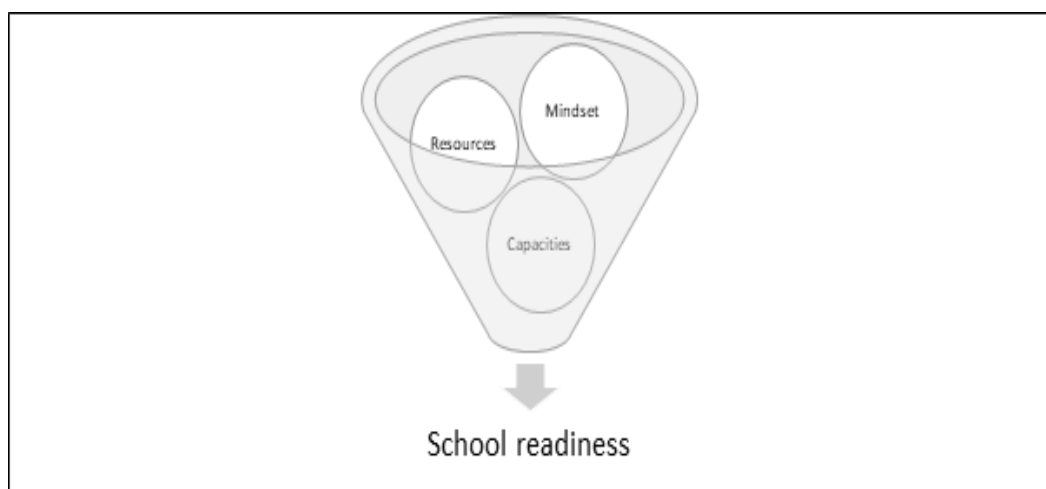
Figure 7.4: The elements that need to be addressed to ensure school readiness for reform implementation

For reform initiatives to be implemented in his school, Alvin explained that he had to address these three readiness issues: the teachers' capacities and mindsets, as well as the resources to support reform.

Alvin shared that there would always be some resistance from his teachers. As discussed earlier in this chapter, the senior school leaders believed that they need to learn first and set an example for their teachers to follow. Alvin thought that the teachers would not have an excuse not to implement reform measures once the principal was able to. However, Alvin was also aware that lack of resources influenced teachers' capacity to implement reforms. Therefore, he focused on getting the relevant resources to support reform implementation. Alvin claimed that School C had no trouble obtaining financial support from the school board, alumni, parent teacher association, and both government and non-

government organisations. Since School C is a mission school, the government only provides partial funding for it; however, the school board is in charge of overseeing funding-related issues. Besides that, the school's reputation as a high performing school earned them kudos for obtaining sponsorship from government and non-government agencies. As the principal put it, *"they know what this school can achieve, so they are willing to invest in us"*.

Additionally, the school alumni comprised successful former students who excelled in business and careers, who would not hesitate to make contributions to the school when the need arose. Therefore, it was not a problem for Alvin to secure funding to equip the school with relevant resources such as an LCD (liquid-crystal display) projector, as per the teachers' request and teaching tools to help make each classroom conducive for teaching and learning. Additionally, the majority of the students come from middle- to upper-class families, eager to support the school's infrastructure and resources so their children would benefit from the best learning experiences.

However, he noticed that *"not many teachers were using [the LCD projector]. So it's a waste. For the school also, you have these resources, it's a waste..."* Alvin brought up a crucial point here regarding his teachers' capacity to utilise the resources available to them. To address this issue, he had to organise courses for his teachers. He believed that a principal should think about:

> how are you going to make sure your teacher is using that [resources]. Not only a few teachers using... Ongoing process, not just what we call one shot only-lah, one-off project. Not one-off project only, it's an ongoing process.

7.4 Features of an effective PD programme as perceived by the participants

The findings point to several features that the participants believed would increase the effectiveness of a PD programme for them. Table 7.2 summarises their perspectives on some of the features that would help them learn better from a PD programme.

Table 7.2: Features of an effective PD programme as perceived by School C's participants

Delivery	Content	Implementation
• Adequate time to cover intended scope. • Expert trainers • Active learning • Visual examples	• Consider the participants' needs / knowledge gaps. • Consistent • Enable the participants to implement learning in school	• Mentoring by school leadership team • Ongoing support • Sufficient resources • Whole school approach

Time was cited by three FG participants as a crucial factor in planning for the successful delivery of a PD programme. They desired a PD session that would give them enough time to comprehend the idea and discuss how to apply it in their own workplace. Additionally, the senior assistant 1 and all FG participants agreed that they needed input from outside trainers who were respected for their credibility or expertise. They thought the current "cascade" process, which involved senior teachers leaving the school for training elsewhere before returning to give a presentation to all teachers, was inefficient and greatly diluted PD.

All FG participants agreed that rather than having them listen passively, read, and interpret on their own without discussing the provided materials, they should participate in active learning sessions during PD. To better understand the concept, they would prefer to have discussions and practical sessions. Mary, a middle leader, and Athirah, a teacher, both favoured visual examples to consolidate their learning. Mary suggested *"benchmarking visits to observe…to learn how other teachers in other schools do it."* Athirah learned from watching experienced teachers' lesson demonstrations on YouTube or by *"follow[ing] the subject panel head and observe her teaching."*

Two FG participants talked about the necessity of taking teachers' backgrounds into account when planning content in order for the PD they attended to be beneficial for their knowledge and skill development. Two FG participants also made the crucial point that the PD material should go over in detail how teachers can put their new knowledge into practice, including *"where to start or how to start"* (Wendy).

All FG participants agreed that the support they received should not stop at training sessions. They should receive ongoing support during implementation either by external trainers or the internal school leadership team. The data revealed, however, that after external trainers had shared the information during external PD, it was up to the attendees to oversee its implementation and for the district education office to make support visits to the school. According to the FG participants, this process was challenging because different parties' interpretations and expectations varied. Fortunately, the SLT at School C, particularly the principal, gave the reform agenda top priority and would see to it that the initiatives were carried out as needed. This piece of evidence suggests that a whole school strategy is required for school reform implementation. Policy initiatives would not be implemented in the school without the SLT's and MLT's involvement. Two propositions emerge from this information.

> Proposition F: Findings from School C show that PD by itself would not aid in the implementation of reform. The reform movement would start and be sustained by the inclusion of all levels of management in ongoing supportive processes. The roles, responsibilities, and training needs of each level of management should therefore be made clear by policymakers in order to assist the reform process brought about by PD.

> Proposition G: Reform initiatives such as TS25 require all teachers to adopt new practices. As opposed to focusing on individual activities, the findings indicate that a collaborative effort between school leaders and teachers is key to enhancing their collective capacity to enact reform.

7.5 Conditions that support an effective PD process

Three important conditions to support an effective PD process were revealed by the findings from School C. Figure 7.5 summarises the findings from School C's participants.
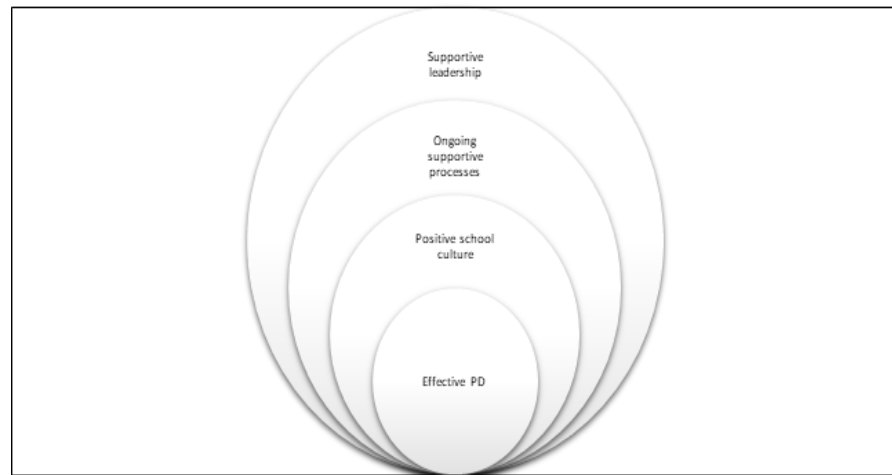
Figure 7.5: Necessary conditions to support effective PD system in School C

Leveraging leadership

The findings emphasise the value of learning-agile and highly self-confident school administrators. School C was able to advance in reform implementation and do well in public examinations by leveraging their leadership skills. Finding the ideal balance is complex. Despite evidence of misconceptions and inconsistencies, as with Schools A and B, School C's strong senior leadership produced greater results. Additionally, the senior school leaders ensured that procedures were in place to assist teachers in putting the implementation plan into action.

Supportive processes

The data clearly identified that the senior school leaders ensured that their middle leaders were able to assist teachers in putting reform into practice. Despite the fact that these middle leaders lacked the necessary training to oversee colleagues' PD and mainly relied on directives from their senior leaders, the strategy for all school level leadership to work together was identified as effective. Additionally, the senior school administrators made sure that teachers had access to sufficient resources to carry out policy initiatives and actively involve their students in learning.

The findings suggest that the school should ensure that PD is ongoing, and that the entire staff is engaged in a collaborative effort to adopt new practices in order to achieve synergy, which in turn promotes a positive school culture.

Positive school culture

Mahmud, a middle leader, stated that one of School C's strengths was the *"cooperation among teachers*" whenever they were given duties to complete. They would cooperate in groups to complete tasks since their principal expected them to work hard and efficiently manage their time. The evidence made it clear that the principal was in charge of creating a culture at the school that was conducive to learning and supportive of it. Alvin, the principal, said that it was important to work as a team. Despite some resistance from his teachers, he managed to get his team to work together for their students' benefit.

Additionally, the SA1 and the principal agreed that showing appreciation, providing recognition and being able to trust are crucial factors that have a major impact on their teachers' motivation and collaboration. Rather than just being told what to do, school leaders should be able to give their middle leaders some agency. This promotes a better learning culture.

Seven inter-related propositions relevant to PD for education reforms emerged from the analysis of School C's case study. Table 7.3 provides a summary of these propositions:

Table 7.3: Summary of propositions for School C

Proposition A	The ability to overcome the challenges of learning from TPD was demonstrated by both participants. They both showed a desire and commitment to learn as well as a sense of self-efficacy. These two traits would be extremely helpful for school leaders, especially in a complex and challenging policy environment like Sabah.
Proposition B	School C's recent academic success and selection as a benchmark school for the TS25 programme are indications that both its reform initiatives and exam performance were successful. The success seemed to be generated by the practice of senior school leaders, who were actively seeking ways to support teachers in implementing reforms and creative pedagogies. Leveraging school leaders' awareness, communication, influence, and learning agility appears to play a significant role in establishing those successful conditions.
Proposition C	Due to the absence of set hours for TPD integrated into the school system, TPD sessions were not guaranteed, which may account for teachers' lacklustre participation in TPD. It may be possible to address the readiness of teachers to participate in TPD by including a number of set times for it during school hours in a yearly plan.
Proposition D	Ownership was regarded as a crucial component in winning the support of school administrators and teachers for a reform agenda. Giving ownership without the necessary knowledge and abilities to carry it out, however, would lead to policy implementation failures. Before giving implementers ownership of policy implementations, it is crucial to assess their readiness in terms of knowledge, skills, and resources.
Proposition E	A crucial aspect of planning for the delivery of TPD is matching the material with the audience to guarantee relevance and teacher development. In order to properly plan for TPD, TPD providers should take into account their target participants' background.
Proposition F	Findings from School C show that TPD by itself would not aid in the implementation of reform. The reform movement would start and be sustained by the inclusion of all levels of management in ongoing supportive processes. The roles, responsibilities, and training needs of each level of management should therefore be made clear by policymakers in order to assist the reform process brought about by TPD.
Proposition G	Reform initiatives such as TS25 require all teachers to adopt new practices. As opposed to focusing on individual activities, the findings indicate that a collaborative effort between school leaders and teachers is key to enhancing their collective capacity to enact reform.

Chapter 8: Case study - School D

8.1 Findings and analysis

This section summarises the major themes that arose from the analysis of School D's data. Interview participants' quotations are coded as follow:

Table 8.1: Interview and FG participants from School D (accurate as of 2023)

Participants' Code	Participants' Roles	Data Type
Angela	Principal	Individual Interview
Saleha	SA1	Individual Interview
Tilly	Teacher	FG 1
Linda	HOD	FG 1
Kasmah	HOD	FG 1
Ting	HOD	FG 1
Ernah	TPD coordinator	FG 1
Susmita	Teacher	FG 1
Jacintha	Teacher	FG 2
Leyla	Teacher	FG 2
Arni	Teacher	FG 2
Mikayla	Teacher	FG 2
Nicole	Teacher	FG 2
Rania	Teacher	FG 2

8.2 The perceptions of school leaders and teachers regarding their PD experiences

It is important to note that while School D's findings have some things in common with Schools A, B, and C's, they also offer new information about how the participants in this school approached and applied learning from their PD experiences.

The value of PD (leadership perspectives)

Saleha, the SA1, and Angela, the principal, regarded PD as essential to advancing both their own roles as teachers and leaders, as well as their ability to support the teachers and leaders in their school. Both leaders shared that they benefited from engaging in PD activities, especially those that were informal, integrated into daily work at the school, or self-initiated learning activities.

Angela enjoyed reading books and research findings on maximising student learning. Angela claimed that she frequently reflected on what she had learned

from her reading, her own experience, and the experience of her teachers, connecting them to the performance data of the students. She mostly referred to John Hattie's Visible Learning for Teachers, using the principles she learned from that book to engage her teachers in reflection about their own practices during school meetings.

Saleha, on the other hand, found shadowing her principal to be advantageous because it gave her the chance to learn teaching strategies that she could then use with her own students. Saleha asserted that the principal preferred to stay in school and focus on instructional matters rather than attend training sessions for school leaders on topics like financial management, which normally took place externally. Saleha added that the principal was always prepared to take over lessons that were left by teachers who were called away for external courses, in addition to her own classes.

The principal's motivation to be actively involved in teaching students was a rare quality of school leaders in Sabah as perceived by the researcher. Malaysian principals were recommended to teach at least five periods per week, but covering classes for teachers who were away from school was not the norm. Based on the researcher's experience and observation, principals were always busy with management responsibilities and often called away for district and state meetings. Angela, on the other hand, seemed to be selective about the courses in which she was willing to participate, and preferred to be in school with her teachers to focus on students' learning.

Angela mentioned that she would analyse students' performance data and allocate time to discuss her findings and possible solutions with relevant teachers. She even suggested that her teachers work in pairs or small groups to support each other based on the subject performance data. Angela claimed that all of her teachers were aware that if they wanted to talk about their students' performance, she would expect them to analyse their students' data and use the knowledge they gained from it to form the basis for their conversations. Her focus on instructional matters seemed to influence her teachers to focus on seeking various strategies to enhance students' learning. Saleha and all FG participants also described Angela as a role model who would demonstrate the

use of various teaching methods, either as part of a microteaching activity or in a real classroom with actual students.

Additionally, Saleha claimed that the principal was frequently requested by other schools to share strategies for enhancing instruction. She was eager to sit with her principal during such sessions because she discovered that the question-and-answer (Q & A) sessions were where she learned the most. The principal, according to her, might not share everything at once. But during the Q&A, the principal offered fresh perspectives that Saleha found useful. She urged the audience to ask more questions so her principal could elaborate during the sharing session.

In line with Saleha's advice, the researcher had to arrange the interview with the principal on the day that she dedicated for other matters besides teaching. Angela said that she dedicated every Wednesday for matters concerning parents and other non-teaching duties that a principal had to address. For other days of the week, she would be busy teaching her classes or the classes left by her teachers who went for courses, assessing her students' work and conducting extra classes for exam preparations. She said that the school had achieved success in areas other than academics, which was why she was concentrating on enhancing the quality of instruction in School D. Furthermore, she believed that student learning is the focal point for all educators and education policymakers. Therefore, she wanted to make a difference.

She acknowledged the importance of improving the quality of teaching in School D, reflected in her introduction of a Standard Operating Procedure (SOP) for her teachers to follow, to give their students better learning opportunities. According to Angela, she came up with the SOP in her previous school because she realised how important it was to upgrade the pedagogical knowledge of her teachers in order to improve exam results. Angela recalled that she had a difficult time adjusting to her new role as a principal when her previous school's public exam scores sharply declined. She looked into the causes of the subpar performance and discovered that there had not been a consistent effort made to improve the standard of teaching and learning. Since then, she had focused her efforts on improving instruction and had gained the support of the entire school.

Since that time, the school has transformed into one of the district's top performing schools.

It is worth noting that Angela was described by Saleha and all FG participants as what other countries regarded as a teaching head. According to them, Angela devoted most of her time to instructional matters and limited her time for other leadership responsibilities, such as management and administrative duties to just one day in a week. She also trusted her middle and senior leadership teams to handle other administrative duties. The study's findings suggest that School D employed some form of distributed leadership, giving the principal more time to concentrate on her efforts to improve the school.

Besides that, Angela prioritised instructional leadership for the majority of her working week. She would use the rest of the week to monitor and assess students' progress, as well as provide support to teachers whose subjects were not performing well. She actively looks for ways to ensure students' needs are met and supports her teachers in doing so by engaging in data and reflective practices.

Based on the principal's explanations and the researcher's analysis of the PD materials, the content of the SOP combined information from Angela's readings, particularly recommendations from Hattie's Visible Learning strategies and the need for a more appropriate pedagogy for 21st-century learning as aspired by the current Malaysian education blueprint (MEB). The SOP basically suggested the ways in which the teachers could incorporate creative pedagogic knowledge in their lessons, basing it on the concept of visible learning outcomes. The principal then demonstrated to the teachers how she would use the SOP to prepare and conduct a lesson, utilising formative assessment as a tool for exam preparation.

The researcher learned that Angela had held a PD session for her teachers that included a lesson presentation and an input session to help them comprehend the SOP that she had developed. All the FG participants and three other teachers with whom the researcher had a chance to have an informal conversation with, shared that the principal used actual students in real classrooms to demonstrate the concepts that she was advocating to them. In this

way, the teachers could see the outcome and the steps in implementing the strategies with their students. Besides that, Angela also helped her teachers understand their strengths and improvement needs by engaging in lesson observation and mentoring activities. She found that offering guidance and feedback after or while observing a lesson were important aspects of PD for her teachers since the outcome was more likely to be immediate.

However, when it comes to the government-mandated PD, both leaders felt that the programmes were insufficient for enabling their understanding and capacity to implement their learning in their school. Saleha thought that the TS25 programme was unclear and unhelpful. She felt that the theory adopted from overseas which the IAB trainers introduced was not relevant to School D. The example shared with school was suitable for small classes with 5 – 6 students. Saleha claimed that "I can take care of 10 students easily. But here we have 42 – 45 students in a class. So, the theory they introduced was not practical." She believed that IAB should carry out research and introduce a more adapted model that should be piloted in various settings, particularly in classes with 35 to 40 students.

She also believed that TS25 is "a rebranding" of the previous government's efforts in introducing 21st century learning pedagogies. Only this time, the aim was to enhance the use of technology in the classrooms. In her words,

> TS25 is more towards having an equipped classroom, that's why they said teaching can become effective... so what we did in this school is to equip the school with teaching aids like LCD or smart TV. We have smart TV in every classroom now, at least a portable one.

Similar to the misunderstanding noted in School A, Saleha's response indicates that in order to get positive feedback from the visiting district officers to assess the implementation progress, she needed to concentrate on providing the school with appropriate resources like digital tools to meet the requirements of the programme for an 'ideal' classroom. Although the school did not have sufficient funding to equip them with the resources needed, she made use of the previous digital tools abandoned by teachers when that policy initiative was discontinued. The old policy, which was introduced in 2003, emphasised the use of English as a language of instruction for teaching science and maths. In line with the policy move, all schools, including School D, were provided with digital tools such as

LCD projectors, smart TV and computers for Science and Mathematics teachers to utilise in teaching. Various public figures, academics, and politicians had debated the policy, resulting in its reversal in 2012. Due to inadequate maintenance, however, not all projectors were functional. Saleha mentioned that some may still be usable, and it would be a pity to let them go to waste. There were insufficient computers for every class, so she put them in a room which was formerly a laboratory, renovated to make it conducive for learning with technology. She called the room – 'the TS25 room'. Teachers needed to book in advance if they wanted to use the room. She asserted that if a classroom similar to the TS25 room existed for each of their classes, the objective of the TS25 for effective teaching and learning might be fulfilled.

It was clear from Saleha's response that the key concept of TS25 was not understood and School D focused on just one small aspect of the whole programme. She, however, recognised that some of the input shared during TS25 training was useful, but she believed that providing more examples of how the strategies could be adapted to local settings would be more effective. However, she found that "TS25's suggestions on teaching and learning strategies were more complicated" than the principal's SOP training. She also added that the workload that came with TS25 initiative made implementation more problematic as leaders and teachers in schools were busy with a myriad of other tasks to complete.

Saleha added that many PD trainers were not in favour of her being one of the participants because they thought she asked too many questions, which bothered them. Saleha clarified that she had a genuine interest in learning more from the trainers because she understood that she would need to impart the knowledge to her teachers and implement the initiative at school. But by asking too many questions, the trainers appeared to feel challenged. She also noted that trainers had different interpretation of the theory and concepts being shared.

Angela concurred that the compulsory PD was mostly unhelpful because she did not get information on "how to do it in school." Although she appreciated the input gained from some of the PD courses, she was not supported in terms of

implementation due to the gap in the learning content. She had to figure things out on her own. She shared that,

> Everyone knows the objective, to improve, to achieve KPI [key performance indicator] for this and that, to produce what, right? Then for the implementation, we could design the…timeframe to implement it…then when it comes to doing it…that was the limitation, not much. Sometimes I wonder, I want to ask, how and how? Not what, what and what.

Angela also mentioned that not everyone was brave enough to complain, especially to the trainers who they knew were just presenting the concept or the idea shared to them from the master trainers. Usually, the trainers would suggest when and how long the duration of a certain task but not much details about the actual implementation steps. She mentioned that:

> I was waiting for that [the action steps], that was all I was waiting for. But they only said that once you implement this, the results will improve. But they seldom explained 'how'. That's what was missing [from PD]. So, if we attend courses that shared only the concept…that's just the skin [surface]. I was looking for 'how' and most of the time we were disappointed. In the end, we had to find our own ways to do it.

She revealed that she would need to "google" explanations for the concepts she had just learnt in order to come up with her own strategies. However, she was aware that not all of the strategies would be warmly welcomed by her staff. She would thus run her ideas by her senior leadership team first, to receive their feedback and hear their recommendations for improvement before executing them with the entire staff.

It is evident that both leaders were actively looking for more opportunities to grow professionally through their own experiences and initiatives. The external PD appeared to increase their awareness of the knowledge and skills they wished to acquire, but independent learning would be required to achieve those goals.

Four propositions emerge from their perspectives:

> Proposition A: The findings highlight some of the drawbacks to external PD, but these experiences made the senior school leaders more inquisitive and appeared to increase their need to learn, albeit independently. Thus, external PD should not be disregarded. To fully take advantage of learning opportunities and successfully apply new

knowledge, teachers should be expected to be actively engaged both during and after the external PD.

Proposition B: Both leaders learned most from job-embedded PD and their own initiatives to grow professionally. Taking charge of their learning and understanding their preferred learning styles were two indicators of success for both leaders. To increase their capacity for learning, it would be beneficial to encourage teachers to reflect on these two fundamental concepts. In this case study, the leaders were demonstrating good exemplars to teachers of how to learn and implement new practices.

Proposition C: Concerns about the viability of the initiatives in the context of local schools were raised by the evidence of globalisation manifested through policy borrowing as illustrated by the TS25 model of reference. More work is required to conduct research on the applicability and possibly adaptability of the adopted model in local settings.

Proposition D: The MOE was committed to improve the line of communication between various levels of management through 'performance dialogue' sessions. However, asking more questions or voicing out their concerns- which could be taken as part of a healthy 'dialogue' - seemed to create tension among the trainers and the participants. Addressing this tension would improve the feedback loop to upper management levels (district, state and national) which could in turn enhance the support that schools would receive. Furthermore, by asking for participants' feedback and actively considering it moving forward, PD providers can increase the efficacy of their programmes.

The value of PD (middle leaders' and teachers' perspectives)

The findings reveal that the district education office organised external PD activities that were valued by all FG participants, especially when they involved knowledge sharing or the sharing of best practices. All FG participants agreed that they were able to learn new techniques from other teachers in the district

during the sessions and that they also helped to create a network among themselves for potential future collaboration. They particularly liked the 'Performance Dialogue' sessions conducted by the district education officers to discuss issues and interventions for examination preparation. These performance dialogues were in fact, an initiative from the MOE to improve communication between all levels of educational management. Additionally, two new teachers in both FG groups mentioned that the school's PLC sessions had given them opportunities to learn from their more experienced peers.

All FG participants concurred that the principal's PD session on the teaching SOP was an excellent training programme with a specific goal that was supported by useful handouts and relatable examples. They admitted, however, that the SOP challenged their usual practices and that it might take more time to change the way they teach. Rania, a teacher, mentioned that the SOP had proven to be a success in the principal's previous school. *"We have to do it, must do it for the sake of our SPM results, students' results. Our previous results were not excellent."*

Rania shared that the principal had clearly explained the steps in implementing the SOP. The SOP advocated that after 15 minutes of input, teachers need to move on to the first activity to assess students' understanding. While the students were engaged in the activity, teachers were expected to supervise, guide, and gauge their level of understanding before deciding whether to repeat the lesson or move on to the next block of instruction. According to Angela, research on students' engagement had taught her that lengthy teacher discourse would make students restless and uninterested. However, Rania asserted that teachers were caught in a dilemma of wanting to engage their students in activities as the SOP suggested, and the need to explain the difficult topics and skills specified in the new curriculum.

However, the researcher's observation of classroom activities shows that not all of the teachers had yet implemented the SOP. The principal also expressed her disappointment that her teachers were failing to put the teaching SOP into practice and that the quality of instruction had not improved. After the PD session, she regularly checked in on the progress of her teachers and discovered that while some were trying, the majority were not. She therefore had to lead a

second session and was making an effort to appreciate that changes take time. Angela acknowledged she lacked patience, but with the advice of her senior leadership team, she was able to give her staff more time to adjust to the changes she wanted implemented. At the time of the interview, she mentioned that the process, which was started four months prior, was still ongoing as she kept monitoring and reinforcing the knowledge.

All FG participants in School D felt that the PD courses that were cascaded to them from the Ministry were problematic. Ting, a middle leader, revealed that the course for her subject was rushed and unhelpful:

> We were trained to teach living skills subject. But with the new curriculum, we must teach RBT [design & technology]. We were confused as to how to teach it. The course exposed us to the activities, but the problem was, they never unpacked the syllabus for us. We went for 3 days course, but we need to do the practical part. How are we to guide students to understand the content? It is up to us to make sense of the content.

RBT and living skills, according to Ting, are two entirely different subjects. She explained that there were only two teachers for the RBT subject in the school and both of them were struggling with the new syllabus. Similarly, Linda (middle leader) and Rania (teacher) claimed that the new curriculum was challenging for both the teachers and the students. Ernah (teacher) concurred that the current curriculum was complicated and that there were few PD opportunities available to teachers to support them in making sense of the syllabus.

Additionally, Mikayla, a teacher, shared that PD opportunities were not equal for all the subjects. For her subject, physical education (PE), Mikayla claimed that PD for them was conducted only at the initial stage of disseminating the new curriculum. She revealed that the one-off PD was insufficient in enabling them to effectively implement the new syllabus. She believed that since PE was not a core subject for public examinations, fewer PD opportunities were offered to them. She claimed that many PE teachers that she knew were not trained to teach the subject. For example, in School D, only one of the four PE teachers had a degree in the subject and was properly qualified to teach it. Two other teachers, including Mikayla, who was the head subject panel, were experts in other subjects. Due to a shortage of qualified teachers for PE, they were asked to teach it. She emphasised the need for ongoing PD because they lacked the

necessary initial training for the subject and the syllabus had changed significantly.

The results show that external PD providers need to support teachers throughout implementation, not just when they receive initial exposure to the revised curriculum. The findings also suggest that PD opportunities were not equal for all subjects and that more opportunities were available for subjects that are tested in public exams. This information leads to another proposition: Proposition E: Teachers receive the skills and knowledge they need through CPD to keep up with the changing priorities in the education system. In light of this, regardless of whether a subject will be tested in exams or not, equal PD opportunities for all teachers and all subjects should be made available. In addition to the trainings, supportive procedures should be implemented to give teachers a means of communication to reflect on what works well and what requires improvement.

Challenges

Like Schools A, B, and C, School D found that engaging in PD was challenging due to a number of obstacles summarised in Table 8.2.

Table 8.2: A summary of challenges on PD processes as perceived by School D's participants

Delivery Issues	Implementation Issues
• Insufficient time • Lacks continuity • Trainers' credibility • Insufficient coverage • Irrelevant examples • One size fits all approach	• Lacks support • Learners' background • Dilemma between policy and examination demands • Misconception • High workload • Insufficient time • High stakes accountability

Delivery issues

FG participants in School D lamented on the lack of sufficient time to cover the intended content. According to Rania, the revised curriculum incorporated many new topics, some of which were not familiar to the teachers. Ting mentioned, for instance, that RBT teachers were required to be knowledgeable about the

topic of "microprocessor" in order to teach their students, but they were not exposed to it during their training as living skills teachers. She stressed that she needed more time to learn the syllabus better and it could not be done in just three days and just one PD course. All FG participants agreed that CPD programmes should be offered to all teachers, not just for teachers who were not experts in the subject. Since new topics were being added that may be unfamiliar to expert teachers, the training should not be a one-off.

The shortened duration of the PD courses was a big concern to all of the FG participants. Linda (middle leader) claimed that the trainers randomly chose several topics from the syllabus and there was not enough time for practical activities. She asserted that many topics were left for teachers to learn and interpret for their students because the new curriculum was broad, but the PD time was brief. The two Mathematics teachers in both FG groups, Linda and Ernah, both felt that the revised syllabus for the subject was not suitable for their students' levels. They both thought the curriculum was too demanding and challenging for both teachers and students.

In addition, Rania said that there were not enough resources available to support their learning of the new curriculum. Furthermore, she shared that it was difficult for teachers to get support from their trainers. She mentioned that usually when they asked questions, the trainers were either not able to give them concrete answers or they would say, *"we will get back to you"*. But according to Rania, they have not responded.

Leyla, a teacher, asserted that the trainers were uncertain about the new curriculum's content themselves. Teacher Jacinta mentioned that textbooks and curriculum documents were still being revised even after the initial PD to spread the new curriculum had begun. Mikayla summarised her PD experience as 'problematic' and 'unsystematic', resulting in confusion.

A further big problem that School D's participants experienced regarding PD engagement was what they perceived as the irrelevant examples shared with them. In line with Saleha's response earlier, all FG participants felt that the examples taken from developed countries were not relevant to the local school context. Middle leader Kasmah noted that School D had significantly more

students per classroom than the given examples shared during TS25 PD. School D had an average of 40 students per class at the time the data was gathered. There was one class with 55 students which had exceeded the limit of a classroom size, but the school had no authority to reject students who were sent to them by the district education office. Kasmah continued that with such large class sizes, teachers had to deal with classroom management issues which might not be present for small classes as depicted by the examples in the PD sessions. Mikayla agreed that managing group activities for 40 - 55 students was not an easy feat, and this aspect was not covered during PD for the new syllabus. It is evident from the findings that the 'one size fits all' approach was not successful as *"it disregarded the fact that schools are diverse in many aspects"* (Jacinta, a teacher).

Another proposition emerges:

> Proposition F: Given that contextualise PD is too expensive, it makes sense that the government chose cascade training as the main delivery system. However, the findings imply that policymakers need to consider the complexity of cascading PD for various school contexts. Additionally, policy initiatives need to put a strong emphasis on the capacity building of state, district, and school leaders in order to support teachers in using their expertise and professional knowledge gained from cascade training to overcome challenges posed by the school context and meet the needs of their students. Expectations set forth in national policy ought to be reflected in training programmes and school-based support for teachers.

It is pertinent to note that the 2013 MEB outlined the recruitment and appointment of SISC+ for every district in Malaysia, including Sabah, with the hope of providing tailored support for teachers in their respective districts.

Based on the researcher's observational data, the level of support provided by the SISC+ team differed significantly across the four case schools and subjects. For School A and C, more support was given at district level and in monitoring TS25 programme. School B received more school-based support for selected subjects in addition to TS25 programme monitoring sessions, while School D did not get much support visits by the SISC+, either for the subject or programme.

The researcher concluded that although the policy initiatives gave some indication of school-based support, mostly via the appointment of SISC+, the execution proved to be problematic and inconsistent. Informal discussions with two visiting SISC+ in Schools B and C revealed how the numerous demands made on them by the ministry, state, and district levels limited their time and effort to offer the support where it was required.

Saleha, the assistant principal, shared that she had invited a SISC+ friend to observe her teach in class so she could receive helpful criticism on how to improve her approach. Her SISC+ friend had not yet accepted the invitation because the state or district had frequently called him to carry out other ad hoc tasks.

A further proposition emerges from the information shared above:

> Proposition G: The appointment of SISC+ appeared to offer a practical approach to ensuring ongoing school-based support for PD learning and reform implementation in every district in Malaysia. However, as new policymakers assumed control of managing the MEB initiatives, the focus for SISC+ to concentrate on offering customised school-based support appeared to veer off course. Based on the researcher's own positionality as SISC+ prior to the study and her observations made while visiting schools, it could be concluded that the coaches' lack of access to proper coaching modules and the apparent disconnect in expectations between all levels of educational management rendered them irrelevant in terms of providing customised support for schools. It becomes clear that all levels of educational management in Malaysia need to be educated on the idea of coaching and customising support for school-based TPD.

Another interesting reveal involves two new teachers who were in both FG groups. Arni and Tilly were both new English teachers in School D. They shared that they were overwhelmed with all the changes in the curriculum because when they were studying in their teacher induction programme, they claimed that they were not introduced to the revised curriculum. Both Arni and Tilly were appointed the same year the FG interviews were conducted. Tilly said that:

> There's so much more that we need to learn, and we were like throwninto this situation with, how to say, with no proper shield, no proper weapon… All we have now is what we learned in university, that's all and that is not enough for us.

Both the new teachers, however, were grateful that the school had a mentoring programme for novices, and they had gained a lot from their more experienced colleagues.

Tilly added that even among her friends who had graduated from the same university, they differed in terms of their knowledge gains. She claimed that:

> What was taught to us was different for example PBD [Classroom-based assessment]. For me, my batch we were not taught that. We were not taught that at all. It was mentioned here and there but this was not going into depth.

Therefore, new teachers as indicated by Tilly and Arni, were struggling to cope with the practical side of teaching and at the same time, *"we have like a lot of things that the administrations are giving us"* (Tilly). Arni stated that:

> We have to build our knowledge from the ground up…we can learn from experience but at the same time it feels like we were trying to catch up on something that are moving way faster than us, so much more rapidly.

Two propositions emerge regarding teachers' perspectives on PD:

> Proposition H: Teachers need to have the necessary knowledge to interpret the revised curriculum into instructional designs that are appropriate for their students in order to use it effectively. The various stages and backgrounds of the teachers should be considered when designing PD opportunities.

> Proposition I: Teacher preparation course seemed detached from the goings in the actual schools as suggested by the findings. This situation emphasises the value of CPD in helping these new teachers understand and adapt well with the constant changes in school settings.

Implementation

The findings from School D also point to the same challenges in implementing new practices in their own school, which is consistent with the three previous case schools. The major issues relate to the lack of support, resources and time. Nicole, a teacher, stated that the PD she experienced regarding the new curriculum was too packed, "there were too many contents to cover." Linda added, *"But the duration was short."* Linda reflected that teachers needed time to understand and once that was achieved, then implementation could begin. Kasmah agreed that it should not be *"a last minute"* thing. She recalled her experience of being trained a month before the actual implementation which she thought was not ideal. Kasmah felt that the training should have been done much earlier to give teachers more time to digest and prepare for implementation.

Like the other three case schools, challenges shared by School D's participants included - evidence of misconceptions, dilemmas between policy aspirations and an examination-focus, high workload and high stakes accountability.

The misconception about PLCs is consistent with the results from the other case schools. Saleha added further information by stating that the district education office had asked the school to submit a one-page report with numerous photos taken at various PLC stages. The main proof, according to Saleha, was that the teachers in each picture should not be sporting the same outfits. The researcher was made to understand that the various attires represented the various days/cycles that the PLC sessions were held. As a result, Saleha said that they did the reports to meet the requirement, but they were not a true representation of what was really happening in school. This evidence further proves that PLC was a misunderstood concept, not just in schools, but also at other levels of educational management. In order for all educators to benefit from the PLC effort, it is essential that they have access to accurate concept knowledge and receive ongoing support throughout the implementation process.

The next proposition is formed based on the evidence above:

> Proposition J: The findings reveal that misconception is a big hindrance to
> reform effort. It had an impact on the quality of the support provided to

schools as well as teachers' motivation to implement reform measures that had been shown to be successful for efforts to improve schools in the international literature. Having a group of qualified experts who would undergo adequate training before conducting a pilot study in various contexts would be beneficial. The schools who are selected for the pilot study would then have a team of internal trainers who can then lead the practice for their peers. These pilot schools could then be the source of knowledge for other nearby schools.

Another challenge faced by teachers was concerning classroom-based assessment (CBA) data. Rania claimed that what she learned from the PD related to the topic could not be implemented in a real school setting. She claimed that:

> During the course [for CBA], I was confident of my understanding of the concept and strategies. But when I want to implement it at school, it becomes unclear because of the directives from the state or district education office that warned us, if we put Level 1 or 2, the officers from the district office would come to school to check. So we have to give minimum Level 3 for all students. So in the end, what we did was totally different from what we learned from PD.

Rania's response serves as an indication of miscommunication and disconnect. According to Rania, this circumstance resulted from the state, district, and school's desire to avoid being the centre of attention for subpar academic performance. Mikayla expressed her concern that this data manipulation distorted the precise information about the students' actual needs. Although some of these students might have fallen short of the minimum requirement, the data were presented to show that all met the criteria. She was concerned that data manipulation would prevent students who actually needed more help from receiving the necessary intervention. Kasmah who acted as the TPD coordinator of the school, also shared that during a data workshop at district level, they were told not to include any student without a score for CBA. Even when the students were missing for a good part of the school year, teachers had to give them at least Level 3, which meant achieving the minimum standard. The researcher realised that the performance-based culture and the high stakes accountability had an impact on how the policy initiatives were implemented in schools. Moreover, as suggested in School A, the participants felt their 'professional judgement' were contested, resulting in them losing their sense of agency.

Rania revealed that the system continued to place a strong emphasis on students' performance in public examinations, despite the fact that CBA data were hotly queried at the district and state levels. She claimed that a school's performance on public examinations was taken as an indicator of its quality. As a result, there was a strong focus on exam preparation, and as revealed by all FG participants, they believed that policy initiatives were not promoting excellent exam performance. Mikayla said that "PD activities were more focused on how to be effective teachers rather than student outcomes. They were more like teacher preparation courses and did not relate well to what was happening in the school now." Mikayla's response suggests that there was uncertainty on the purpose of TPD, which could explain the reasons behind teachers' lacklustre engagement in formal training programmes.

Making sure that PD fits in with teachers' already-existing commitments and schedules is essential to its success. Saleha revealed, however, that the suggested lesson study (LS), which entailed multiple cycles of meetings, did not go over well with the teachers. She explained that they were unable to conduct LS in accordance with the guidelines because of their heavy workloads and packed schedules. The cycles were altered as they saw fit. Additionally, all participants lamented the enormous paperwork or reports that came with each initiative. "Sometimes it's frustrating when you had submitted a thick report but when the exam results came out, we were questioned." (Rania). She further elaborated that on paper everything looked great but in reality, they were struggling with implementation while trying to make their students pass the public exams.

In light of the challenges shared, the researcher identified four main factors that could influence school leaders and teachers to implement PD learning in their school.

8.3 Factors influencing school leaders' and teachers' capacity to implement their TPD learning

Figure 8.1 below summarises the factors influencing school leaders' and teachers' capacity to implement their PD learning as suggested by the analysis of School D's data.

Figure 8.1: Factors influencing the implementation of PD learning in School D

Personal factors

The results imply that teachers' motivation and dedication to learning affected their willingness to learn and apply their knowledge in the classroom. School D's participants, like those from the first three case schools, were driven by exam results and committed to learning strategies that ensure an improvement in their students' performance every year. The principal and senior assistant 1 both mentioned that their teachers were hesitant to adjust their methods because the latter felt that teacher-centred instruction was better suited for exam preparation than student-centred approach. Rania stated that "students don't understand the content knowledge and teachers need to explain the syllabus for them before they could begin to engage in activities." She gave an explanation for why it would take some time before the SOP shared by the principal became standard. She said that although it was not new knowledge that having 'fun' activities would engage and consolidate learning better, she, like other FG participants, believed that it was more important to ensure students understand the content knowledge and they felt that the only way to achieve that was through teachers' explanations.

This information leads to the next proposition:

Proposition K: The researcher noted the conflict that exists between teachers' beliefs and policy aspirations. Rather than merely sharing the pedagogical strategies, exam-focused PD contents attracted more interest. This means that PD contents should make the link between exam outcomes and pedagogical approaches explicit for teachers because they seemed to have trouble connecting the two aspects. PD providers should not assume that teachers could make sense of the contents in just one sitting.

Additionally, the principal's perception of effective teaching and the teachers' viewpoint were at odds with one another. Though the principal had demonstrated the link between pedagogical strategies and exam taking strategies, the clash of beliefs slowed the process of change. Hence, the need for continuous support from school leadership team.

Leadership for TPD

Both principal and senior assistant 1 of School D demonstrated a great sense of self-efficacy in leading their own PD and in time, their teachers. All FG participants shared that the PD led by their new principal was good because there was "evidence of proper planning" (Rania), "the steps to follow were very clear" (Kasmah), and as shared earlier, the delivery was relatable with relevant examples. Teachers had no doubt about what and how to do after the PD session. Saleha and all of the FG participants agreed that the principal would regularly check on teachers' progress in putting the SOP into practice. Following a month of monitoring the implementation, Saleha shared that the principal conducted a follow-up training, and at the time of the interview, they were still assessing how the follow-up PD was having an impact. Saleha confirmed that the principal frequently consulted her about the best course of action after observing the implementation's development. She said that if, after two training sessions, they were still able to identify teachers who had not improved, they might concentrate on those teachers who needed more assistance in adjusting to the new SOP. It is worth noting that the principal had just assumed leadership of School D four months prior to the interview. Given the complexity of change, the principal's PD strategies would not produce immediate results.

Despite the time restrictions her position placed on her, Angela spent time and attention actively supporting her staff in classroom settings. This is a rare quality that the researcher did not observe in other principals she encountered. In addition, Angela also focused on data-driven decision making and reflective practices. In earlier section of this chapter, Angela shared that she regularly monitored and discussed students' performance data with her leadership team and teachers. She used the information from the data analysis to decide pedagogical strategies or to suggest collaborative projects among her teachers. She also encouraged teachers to be familiar with their students' data whenever they wanted to discuss with her one-on-one or in school meetings.

The researcher noted that, in contrast to the other case schools, Angela made sure that data analysis and strategies to enhance academic performance were covered at school-wide meetings without fail. She believed that the main purpose of having a meeting in school was to discuss students' learning. She shared that she would start by sharing her own insights into the data analysis, then a member of the school leadership team would be invited to share. She would then request input from three teachers regarding their analysis and suggestions for enhancement. Angela claimed that she always followed the same agenda for her meetings, with agenda items 1 and 2 dealing with other topics, such as government initiatives, and agenda items 3 through 5 consistently focusing on data analysis and knowledge sharing. Additionally, she would hold separate sessions to reflect on her instructional strategies in light of the empirical data she had gathered from international literature in order to maximise student learning. She mostly cited Hattie's Visible Learning findings, as previously mentioned, and encouraged her leadership team and teachers to draw parallels with their own practices.

It is clear to the researcher that Angela put a lot of effort into increasing her leaders' and teachers' abilities to reflect and use data to make decisions about students' learning. Her comments also indicates that she was interested in creating a learning culture among her staff, first by establishing a consistent meeting agenda, and second, by empowering all teachers and leaders to participate in all meetings. Further discussion on generating a learning culture is found in the next section of this chapter.

Organisational factors

Organisational factors that are prevalent in School D's findings include school culture, physical structure, resources and time. Saleha observed that many of her teachers were motivated to explore new approaches as a result of casual conversations they had in the canteen during their break times. She noticed that teachers were more eager to hear about their colleagues' successes implementing novel strategies, and that shared tacit knowledge among peers that was gained from practical experience seemed to encourage growth. She claimed that the casual, unstructured interactions produced a greater impact than a formal PD training session.

As a result, Saleha made use of her free time to establish rapport with teachers and discuss topics related to her success in utilising the SOP and methods introduced by the principal. Establishing a culture of sharing in an informal setting seemed to work well for her teachers and produced genuine interests to exchange knowledge and expertise. She noted that after a few weeks of the initial conversation, some teachers were happy to share their successes or problems with their peers.

This evidence leads to another proposition:

> Proposition L: The organic, unstructured interaction among teachers seemed to promote curiosity and interest in learning. The findings suggest that informal peer learning occurs through rapport building and the need for mutual support. In the process of co-construction of knowledge, teachers begin to invest some time in modifying their practice while simultaneously developing their knowledge and expertise, at their own pace and level, with the consistent support of their colleagues. To become a culture, school leaders need to nurture and support this kind of interaction.

Another interesting discovery is the impact of structuring the staffroom according to subjects or field as instructed by the principal. Saleha said that there were two blocks of building dedicated to teachers. The new block was populated by teachers who taught secondary 1 – 3. The old block, which had four rooms (used to be one room for each of the four head of departments

(HODs), was occupied by the HODs, subject heads and teachers who belong to the same field and taught upper secondary students who would sit for their exams at the end of secondary 5. Rania shared that the staffroom was organised in a way that all Science and Mathematics subjects sat together. For example, teachers who taught Biology, Chemistry, Physics, General Science, Mathematics and Additional Mathematics for Form 4 and 5 would be grouped together in a room with their HOD and subject head. There were four HODs - Science and Mathematics, Language, Art & Humanities and Vocational & Technology. The arrangement made it easier for the HODs and their subordinates to discuss or exchange knowledge and teaching materials without having to plan for a formal subject meeting. According to Mikayla, conversations about students and teaching occurred naturally in a setting like that.

Time is cited as one of the most challenging aspects when it comes to TPD learning and implementation. All FG participants talked about their busy schedules and limited time to focus on TPD training and implementation of learning. The researcher also observed that teachers did not fully grasp the concept of TPD as a process. All FG participants viewed the term "PD" as formal where trainers or facilitators shared their knowledge and expertise. Thus, they felt that there was not enough time to conduct or engage in this type of formal PD, which requires a specific amount of time, a specific location, and specific resources.

The next proposition is formulated based on this evidence:

> Proposition M: Raising awareness and extending their understanding to include PD gained from tacit knowledge and everyday experiences like chatting with peers about teaching issues, sharing materials during break time in the staffroom could very well countered their struggles with having 'PD time'. The researcher observed that the insightful informal conversations, the seating arrangement that promoted professional discussions, as well as data analysis and reflective practices, indicated that school-based PD appeared to be taking place actively. Finding time is no longer a problem because a job-embedded PD practice was established as a result of the supportive processes brought about by the interaction between the school leadership team and organisational

factors. Making sense of formal PD learning could also be one of the focuses of job- embedded PD.

Many teachers raised concerns about the lack of time they were given to digest and prepare for implementation; however, aligning external and internal, job-embedded PD might be a solution.

External factors

Generally, the results from School D confirm the findings from the other three case studies regarding external factors influencing how well PD gains were translated into actions. The expectations and directives from the state and district education offices affected how learning was implemented in schools, as was covered in the challenges section. Different expectations for schools to meet were the result of different interpretations of the policy initiatives.

Moreover, the lack of clear, consistent, and coherent implementation strategies and visions, as well as continuous support, hindered sustainable reform initiatives. A shared understanding and interpretation of the policy initiatives are key in this situation in order to avoid varying expectations and inconsistent directives from external sources.

8.4 Features of an effective PD programme as perceived by the participants

The participants shared a number of features that they believed contribute to the effectiveness of a PD programme.

Content	Delivery	Support
• Exam-focused • supported by relevant examples • specific / not broad • relevant to their needs • implementation strategies • consider diverse needs and background	• Efficient trainers • Active learning • Not 'one-off' • Consistent information • Sufficient time to cover necessary content • Appropriate timeframe	• Consistent • Ongoing • Immediate feedback

Figure 8.2: Features of an effective PD programme (as perceived by School d's participants)

It was previously mentioned in this chapter that teachers valued contents that support their students' ability to perform well on exams. School D's findings also suggest that PD effectiveness would also be enhanced through relevant examples and explicit implementation steps. Furthermore, the contents should be specific and not too broad for teachers to grasp within the timeframe established. All participants agreed that PD should fill in teachers' knowledge gaps while also taking into account the various needs and school environments.

The quality of delivery of any PD programme would depend on the capacity of the trainers, the type of activities that the participants engaged in, and the duration and time of the session, as detailed in Figure 8.2. Also highlighted by School D's findings was the need for follow-up support, particularly during implementation.

8.5 Conditions that support effective PD process

According to School D's findings, there are three prerequisites for the implementation of PD learning, as shown in Figure 8.3.
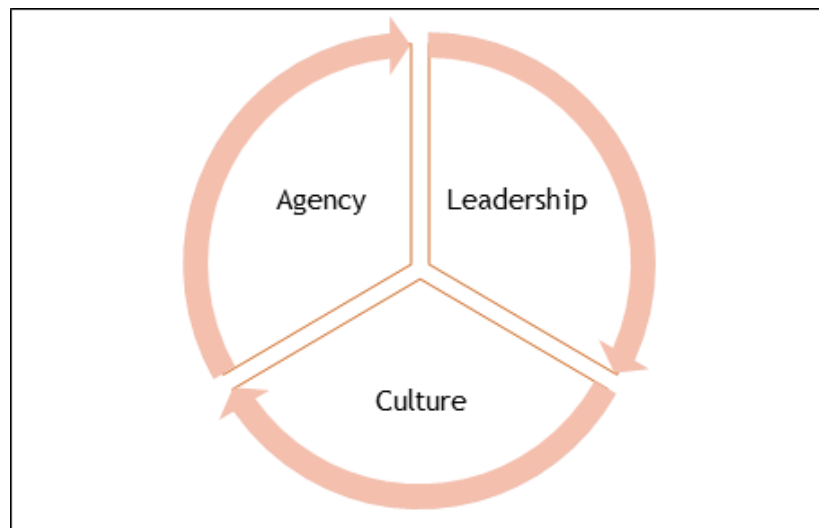
Figure 8.3: Conditions that are necessary to support implementation of PD learning

The three conditions gleaned from School D's data are about supportive leadership, positive working culture and teacher's agency.

School D's findings highlight the role of school leadership, notably that of the principal, in leading school-based TPD. Angela emphasised the value of her

contribution to creating a culture of learning in her capacity as a principal. In order for her staff to be responsive to her reform agenda, she asserted that her prior experience had taught her to stand parallel with them. "I had to show to my teachers that I am like them, having problems with my students, unsure what to do. Surprisingly, when I opened up myself to them, teachers were genuinely interested to offer feedback and suggestion for me to try." The principal's strategy in nurturing solidarity among her staff led to a collaborative working environment between leaders and teachers.

She also shared that at one point her previous school piloted a government initiative, the Dual Language Programme (DLP), in 2016. The school was not initially listed as part of this initiative in her district. She applied to be one of the pilot schools since she believed that the initiative would benefit her students. At first, she claimed that teachers were reluctant to support her decision, especially those in Science and Mathematics, since the initiative required them to use English as their primary language of instruction for selected classrooms. Angela shared with her teachers that she was unsure how to make it work, but together they could overcome their concerns, and, indeed, they were successful. As a principal, Angela emphasised the importance of developing trust with her staff in order to motivate them to participate more actively in reform initiatives.

At her current school, Angela had begun fostering a collaborative learning environment where her teachers were encouraged to work together in a friendly setting by facilitating knowledge exchanges during formal meetings and one-on-one coaching sessions as well as in informal settings, like seating teachers from the same department together in the staffroom or implementing small data analysis-based projects. Senior assistant 1, Saleha, supported her initiative by engaging with her teachers in natural and unstructured talks during her break time to promote sharing of strategies and implementation problems. Angela and Saleha mentioned that they often meet with middle leaders to go over plans and think about ways to improve the school.

The results highlight the importance of effective school leadership in fostering a learning culture through social interaction in both formal and casual settings. In such a friendly and collaborative workplace, active involvement and mutual

trust are two qualities that indicate success. The findings show that connecting learning to teachers' needs and granting them a sense of agency—that is, allowing them to have some control over the pace of learning, the structure of learning, and the learning environment—proved to be effective in increasing their collective capacity to enact school reform efforts.

13 inter-related propositions relevant to PD for education reforms emerge from the analysis of School D's case study. Table 8.3 provides a summary of these propositions:

Table 8.3: Summary of propositions for School D

Proposition A	The findings highlight some of the drawbacks to external TPD, but these experiences made the senior school leaders more inquisitive and appeared to increase their need to learn, albeit independently. Thus, external TPD should not be disregarded. To fully take advantage of learning opportunities and successfully apply new knowledge, teachers should be expected to be actively engaged both during and after the external TPD.
Proposition B	Both leaders learned most from job-embedded TPD and their own initiatives to grow professionally. Taking charge of their learning and understanding their preferred learning styles were two indicators of success for both leaders. To increase their capacity for learning, it would be beneficial to encourage teachers to reflect on these two fundamental concepts. In this case study, the leaders were demonstrating good exemplars to teachers of how to learn and implement new practices.
Proposition C	Concerns about the viability of the initiatives in the context of local schools were raised by the evidence of globalisation manifested through policy borrowing as illustrated by the TS25 model of reference. More work is required to conduct research on the applicability and possibly adaptability of the adopted model in local settings.
Proposition D	The MOE was committed to improve the line of communication between various levels of management through 'performance dialogue' sessions. However, asking more questions or voicing out their concerns- which could be taken as part of a healthy 'dialogue' - seemed to create tension among the trainers and the participants. Addressing this tension would improve the feedback loop to upper management levels (district, state and national) which could in turn enhance the support that schools would receive. Furthermore, by asking for participants' feedback and actively considering it moving forward, TPD providers can increase the efficacy of their programmes.
Proposition E	Teachers receive the skills and knowledge they need through TPD to keep up with the changing priorities in the education system. In light of this, regardless of whether a subject will be tested in exams or not, equal TPD opportunities for all teachers and all subjects should be made available. In addition to the trainings, supportive procedures should be implemented to give teachers a means of communication to reflect on what works well and what requires improvement.
Proposition F	Given that contextualise TPD is too expensive, it makes sense that the government chose cascade training as the main delivery system. However, the findings imply that policymakers need to consider the complexity of cascading TPD for various school contexts. Additionally, policy initiatives need to put a strong emphasis on the capacity building of state, district, and school leaders in order to support teachers in using their expertise and professional knowledge gained from cascade training to overcome challenges posed by the school context and meet the needs of their students. Expectations set forth in national policy ought to be reflected in training programmes and school-based support for teachers.
Proposition G	The appointment of SISC+ appeared to offer a practical approach to ensuring ongoing school-based support for TPD learning and reform implementation in every district in Malaysia. However, as new policymakers assumed control of managing the MEB initiatives, the focus for SISC+ to concentrate on offering customised school-based support appeared to veer off course. Based on the researcher's own positionality as SISC+ prior to the study and her observations made while visiting schools, it could be concluded that the coaches' lack of access to proper coaching modules and the apparent disconnect in expectations between all levels of educational management rendered them irrelevant in terms of providing customised support for schools. It becomes clear that all levels of educational management in Malaysia need to be educated on the idea of coaching and customising support for school-based TPD.
Proposition H	Teachers need to have the necessary knowledge to interpret the revised curriculum into instructional designs that are appropriate for their students to use it effectively. The various stages and backgrounds of the teachers should be considered when designing TPD opportunities.
Proposition I	Teacher preparation course seemed detached from the goings in the actual schools as suggested by the findings. This situation emphasises the value of TPD in helping these new teachers understand and adapt well with the constant changes in school settings.

8.6 Conclusion to the four case studies

The main findings from each case study are presented in Chapters 5 - 8. Drawing from each case, there are nine significant conclusions emerging from the analyses. Chapter 9 provides a more detailed exploration and discussion of these findings, offering deeper insights and discussing their broader implications.

First, emergent across four case studies is that all participants place significant importance on TPD, recognising its role in adapting to curriculum changes and improving exam results. Positive aspects of TPD engagement gleaned from the findings include knowledge enhancement, skill upgrading, peer learning, problem-solving, and a dual focus on students and exams. However, these studies also reveal a conflict between the desire for a more holistic education and the prevailing emphasis on exams. This conflict highlights the need to find a middle ground between exam preparation and fostering a well-rounded education. Furthermore, while acknowledging the inherent value of TPD, the findings present a nuanced perspective on participants' engagement with it, citing various challenges to implementation within their own unique contexts.

Second, the findings point to the significance of school context as a critical factor in influencing the success of the TPD learning-to-practice process. From the case study examples, school context plays a critical role in terms of feasibility and practicality of reform initiatives. There are various challenges within the context that act as filters that influence the extent to which learning from TPD is implemented. That said, it is imperative to consider the diverse school contexts for TPD implementation and the possibility of adopting an adaptive approach to meet the varied needs of schools. This conveys the need for flexibility and responsiveness in designing and implementing TPD initiatives to ensure they are effective across different school settings. Further discussion of this point is in the next chapter.

Third, school leaders' capacity building emerges as crucial for designing TPD for implementing educational reforms. In driving reform initiatives across diverse settings, evidence from the four case studies highlights the significant role of school leaders, particularly principals in Schools A, C and D, in shaping the structure and culture for TPD learning in schools. Conversely, the lack of

knowledge and skill hinders the cultivation of a positive learning culture as exemplified in School B. A crucial skill for school leaders in leading TPD initiatives for educational reforms in their schools is the capacity to foster a positive and continuous learning culture, and to do this, they first need to recognise the personal dimension of challenges associated with teachers' beliefs, motivation, and understanding of concepts such as 'job-embedded' practice. Through understanding the personal dimension of cultivating positive learning, school leaders can begin to build teachers' trust in the process of TPD. This understanding enables school leaders to create a supportive environment for TPD to flourish.

Fourth, across all FG participants in the four case studies, job-embedded TPD, such as PLCs and AR, were perceived as mandated activities that contribute to increased workload due to excessive documentation requirements. For instance, PLCs were regarded as weekly tasks dictated by state and district regulations. Schools were held accountable to submit reports of their implementation as evidence of compliance. This highlights the misconception about PLCs, and misleadingly treats them as 'bureaucratic', being part of the accountability measures associated with their implementation. The evidence from the case study data emphasises the gap in understanding of concepts related to job-embedded TPD among educators (external and internal), thereby depriving schools of what otherwise would be real benefits of implementing such practices. Such understanding and support from all stakeholders, externally and internally to schools, are pivotal for the successful integration of job-embedded TPD initiatives across diverse school settings.

Fifth, the findings also reveal a dual imperative: recognising the importance of externally mandated and provided TPD, while simultaneously acknowledging the critical need to align school-based TPD to it, thereby fusing system policy guidance and professional development and the contextualising that takes place through school-based TPD. The reliance on externally mandated TPD showcases its practical utility as a way of keeping Sabah school leaders and teachers abreast of essential policy changes. However, there are varying opinions among participants about the value of mandated courses. While 10 participants from all four schools find them essential for staying informed about educational reform and policy changes, others perceive them as inadequate and problematic, with

concerns about their relevance in addressing their contextual needs, their impact on examination preparation and cascade delivery issues, and the lack of guidance as to how to implement new practices. That said, while efforts should be directed toward addressing the shortcomings of the cascading approach, it is equally imperative to value and optimise the external support provided by mandated TPD in enhancing knowledge and skills of school leaders and teachers.

Sixth, nonetheless, mandated TPD alone is not sufficient as proven by the data from the four case studies. Evidence suggests that learning needs to be continuous for school leaders and teachers to effectively understand and implement reform initiatives through mandated TPD. This evidence points to the importance of aligning externally mandated TPD with school-based TPD to empower teachers and drive positive change within the educational system. Creating a proactive and empowered teaching community through job-embedded, school-based TPD is essential, fostering an environment where teachers are not merely reactive to external mandates but are equipped to initiate positive changes aligned with the evolving needs of the educational system. This recognition of aligning mandated TPD and school-based TPD serves as a foundation for equipping teachers not only to adapt to evolving educational landscapes but also to proactively initiate transformative changes within their schools.

Seventh, on a positive note, the researcher observed a valuable opportunity for enhanced learning demonstrated by evidence of teacher learning through informal discussions among colleagues across all four schools. This aligns seamlessly with the fundamental principles of the learning theories discussed in Chapter 2, specifically emphasising social learning characterised by situated learning within a community of practice. Furthermore, the significance of this learning opportunity is magnified when considering the dual imperative highlighted in the discussion above. This informal learning, fostered by support from school leaders and other colleagues, becomes a vital aspect in enabling teachers to make sense of and contextualise their learning, based on their specific needs and the local context. Making time for teachers to interact socially, for example, at break times, is shown to have considerable potential as an informal means of TPD, especially when teacher discourse focuses on teaching and learning.

However, eight, the researcher notes that this process lacks a systematic structure, clear objectives, and consistent reflective practices. While participants use these interactions to share issues and ideas, they mainly work individually to refine practices. Recognising the need for a more organised approach, efforts should focus on establishing a systematic process for collaborative TPD to strengthen teachers' collective capacity in advancing reform agendas.

Ninth, the findings from the four case studies show that TPD outcomes are necessarily complex and adaptable, influenced by many connected factors. TPD is a multifaceted process involving diverse stakeholders who need to collaboratively ensure its effectiveness and sustainability. Therefore, it necessitates a systemic approach rather than simply being the responsibility of individual schools or teachers. This systemic perspective is especially crucial in enabling reform initiatives within schools, as it acknowledges the interconnectedness of various elements within the educational ecosystem. By embracing this holistic approach, stakeholders can navigate the intricate dynamics of TPD and leverage its potential for fostering continuous improvement and innovation in education.

Chapter 9: Discussion of findings

9.1 Introduction

Chapter 9 analyses outcomes from the extensively discussed case studies in Chapters 5 to 8, offering insights into participants' perspectives regarding TPD for educational reforms. The research gathers comprehensive data from school leaders and teachers, focusing on their experiences engaging with TPD initiatives in the context of implementing educational reforms in the specified case schools.

This chapter starts with a general introduction and is followed by three main sections. The initial section offers discussion on the similarities and differences of the four case studies regarding TPD for educational reforms. It analyses each case study's strengths and areas for improvement based on emerging themes and propositions, all framed around the primary research question (RQ): *"How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?"* Additionally, the discourse aligns with the four SRQs outlined in Chapter 1. The second section proposes an emergent TPD model derived from the key themes and propositions from the four case studies. The third section explores the compatibility of the Sabah emergent TPD model (Figure 9.4) with the literature-based TPD model outlined in Chapter 2, Section 2.5. The chapter concludes with a summary of key findings.

9.2 Section 1: Discussion on the cross-case analysis

9.2.1 Similarities and differences across the four case schools

With the school as the unit of analysis, this section discusses both the similarities and differences in participants' experiences and perceptions of TPD. This exploration also encompasses an analysis of strengths and areas for improvement regarding TPD within the context of educational reform. The cross-case analysis reveals five central themes:

1. Building capacity for school reform: exploring personal and organisational factors;

2. Aligning internal structures and external environments for synergistic reform;

3. Overcoming barriers to TPD learning and the implementation of reforms requires collective effort by educators and policymakers;

4. Tailoring TPD initiatives to diverse contexts is crucial;

5. Fostering a culture of continuous and collaborative learning is vital.

Each of these themes is elaborated below.

9.2.1.1 Building capacity for school reform: exploring personal and organisational factors

In response to the main RQ "*How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?*", the four case studies reveal that TPD initiatives were insufficient in nurturing the capacity of school leaders and teachers to implement educational reforms. The findings suggest that schools' capacity is intricately influenced by personal and organisational factors within educational contexts, thereby providing insights into SRQ2 (*What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement TPD initiatives in schools?*). This data also addresses SRQ4 (*What policy and other contextual conditions would be necessary to support such an effective TPD system?*) by indicating that schools' readiness is a condition that needs to be considered in TPD initiatives for educational reform.

Personal factors

Consistent with other findings (e.g. Nguyen et al., 2020; Dimmock et al., 2021), this study's data highlights the significant role of school leaders and teachers as agentic decision-makers in adopting, adapting, or rejecting TPD initiatives. This agentic element highlights the pivotal role of leaders' and teachers' perceptions and beliefs in shaping their learning experiences and approaches, influencing their motivation and overall capacity for transformation (Dennison and Kirk, 1990; Fullan, 2016). On a personal level, the participants' mindset towards

reform initiatives, as well as their current knowledge, skills and prior experiences, significantly shape their capacity for change (Widodo and Riandi, 2013; Richter et al., 2019). All participants from the four case schools recognised the significance of TPD in enhancing knowledge and skills, specifically for improved academic performance in public examinations and staying informed about the latest changes in the education system. This finding resonates with other similar studies on educational reforms and TPD (e.g. Ho and Dimmock, 2023; Tran et al., 2020).

While acknowledging the fundamental value of TPD, the findings also reveal a nuanced perspective on participants' engagement, echoing the complexities highlighted in TPD literature (refer to King et al., 2023; McChesney and Aldridge, 2019). All teacher participants across all the four schools were reluctant to embrace new teaching methods and engage in TPD that necessitated a change in their practices. This result echoes the findings of Admiraal et al. (2021) which highlight that a shift in beliefs does not always result in a corresponding change in practice. In the context of this study, despite participants' recognition of the importance of TPD for academic performance and system reform, this acknowledgement did not necessarily translate into actionable changes in their teaching practices. Additionally, in schools B and D, the FG participants raised concerns about incorporating new teaching methods, seeing them as challenging and disruptive to established exam-focused routines. In addition, FG participants from schools A and C exhibited a similar attitude toward new teaching methods, albeit in a more subtle manner, favouring an emphasis on exam-oriented content in TPD. This scenario highlights the dilemma of transitioning from 'received' to 'accepted' TPD stages as outlined in McChesney and Aldridge's (2019, p. 841) conceptual model discussed in Chapter 2.

Further, the findings reveal nuanced perspectives on the varied nature of time constraints affecting TPD engagement across different schools. For example, in school B, time constraints were linked to conflicting personal responsibilities, while in school D, participants highlighted a lack of time for practising the new strategies introduced through TPD. Conversely, in schools A and C, participants identified time constraints as a concern related to their involvement in multiple programmes, aligning with the 'acceptance barriers' and 'implementation barriers' of the McChesney and Aldridge's model (2019). Notably, schools A and C

participated in more programmes than schools B and D, emphasising the intricate balance required in managing multiple TPD initiatives. These challenges reveal the tension between the perceived benefits of TPD and the practical difficulties participants encounter, resonating with the findings of McChesney and Aldridge (2019) and Ho and Dimmock (2023). Consequently, teachers' beliefs and perceptions become critical indicators of the dynamic and adaptive nature of the educational system within the CAST, emphasising the importance of addressing and possibly changing long-standing beliefs for successful transformations (Maass, 2011).

Furthermore, the implementation of new approaches, as reported by all FG participants across the four schools, appears to be driven more by a pragmatic response to district and state expectations rather than a genuine embrace of reform initiatives. This suggests a potential misalignment between policy aspirations and school realities as discussed in the literature on educational reform. The adoption of implementation strategies in education, termed 'instrumentalism' by Proudfoot and Boyd (2023), emphasise motivations influenced by external factors. Apart from the principals of schools A, C and D, the rest of the participants were seen as lacking the intrinsic motivation to drive educational reform within their schools. As Fullan (2016) asserts, the absence of intrinsic motivation for whole-system reform can be detrimental. This lack of internal drive among teachers may impede genuine progress and change, potentially hindering the effectiveness of reform efforts. Recognising and addressing these challenges are essential for designing effective TPD initiatives that can genuinely enhance teachers' capacity to drive meaningful reforms in diverse educational settings.

This study further extends the discussion on the challenges of job-embedded TPD from the teachers' perspectives. Unlike past discussions that primarily addressed external factors such as time constraints, resource limitations, and inadequate support (Ansawi and Pang, 2017; Madon, 2019), this study delves into participants' perspectives, revealing a significant gap in understanding the concept of 'jobembedded' TPD. The findings expose an awareness gap among teachers, particularly evident in schools A, B and C, who perceived TPD as an extra workload rather than an integrated aspect of their routine activities. Hence challenges extend beyond structural and organisational aspects to include

individual beliefs, perceptions, and understanding. This finding aligns with discussions in the literature on understanding and addressing teachers' beliefs and motivations, empowering them in the reform process, and recognising the significance of the 'human' dimension in overcoming challenges in educational reforms (Evans, 1996; Brinkmann, 2018; Aldridge and McLure, 2023).

While there is a substantial literature on the potential benefits and challenges of job-embedded TPD - particularly on PLCs (Timperley et al., 2017; Nguyen *et al.*, 2024) and the need for strong school leadership support for it to be impactful (Hairon and Dimmock, 2012; Admiraal et al., 2021; Qian and Walker, 2021), the discussion often overlooks the intricate dynamics involved in teachers' personal experiences and interpretations of knowledge gained from TPD. For instance, all FG participants and senior assistants of schools A and B saw TPD as a formal obligation rather than a professional commitment. The information presented here exemplifies the challenge discussed by Fullan (2016) regarding teachers lacking ownership of educational reform initiatives, notably evident in the context of PLCs. The data reveals the mandatory nature of PLCs, perceived by participants as tasks to be completed weekly following state and district regulations. This mandatory structure stands in contrast to the idea of genuine ownership and professional commitment to engage in ongoing TPD linked to school improvement as exemplified in Singapore schools (see Hairon and Dimmock, 2012).

The identified gap in understanding becomes a critical focal point for intervention. Addressing this awareness gap is not only crucial for enhancing teachers' skills but is also instrumental in enabling them to seamlessly embed TPD practices into their daily routines. Such recognition is vital for maximising the impact of TPD and preventing it from being perceived as an additional burden or a separate programme. Therefore, a key element of this study's contribution lies in shedding light on the often-neglected personal dimension of challenges associated with job-embedded TPD.

Organisational Factors

Simultaneously, organisational factors play a pivotal role in enhancing or hindering the capacity to implement TPD learning in classroom practices (Sprott, 2019; Hayes, Preminger and Bae, 2024). These factors, which include contextual elements such as the availability of resources, leadership support, school culture, and students' backgrounds, profoundly impact the applicability and feasibility of reform initiatives as demonstrated by the case studies. Participants from all four schools emphasise the challenges posed by limited resources, inadequate facilities and infrastructure to meet policy requirements. For example, the problematic internet coverage hinders the capacity for implementing policy initiative on digital learning. This resonates with previous research conducted in Sabah (e.g. Ansawi and Pang, 2017; Madon, 2019), which also highlights shortages in and unreliability of, facilities, infrastructure, and resources. These deficiencies appear to hinder the optimal outcomes of TPD.

Despite facing constraints in resource availability, facilities, and infrastructure, the principals of the four schools demonstrated unwavering support for their staff's efforts towards implementing reforms. For instance, in school C, Alvin successfully secured support from external stakeholders, facilitating the provision of facilities and infrastructure conducive to digital learning initiatives. Similarly, in school B, Ahmed mobilised support from local business owners and politicians to address repair work and restore basic facilities, thereby enhancing the learning environment for teachers and students. Schools A and D observed collaborative efforts between principals and senior assistants to ensure the availability of resources supporting reform initiatives.

Additionally, principals in schools A, C, and D prioritised the consolidation of teachers' knowledge and skills, nurturing their capacity for reform implementation through various means such as demonstrating learning, coaching, and mentoring middle and teacher leaders, thereby gradually building the collective capacity of the whole school. Conversely, in school B, Ahmed faced challenges in building the collective capacity of the school and relied heavily on external sources to enhance teachers' knowledge and skills. Although this stands in contrast to the efforts observed in the other three schools, the similarity lies in Ahmed's efforts to minimise constraints posed by the school's

physical environment, claiming that by doing so, teachers could focus on using digital tools in their lessons.

The school culture has the potential to be both an enabler and inhibitor of school reform effort. During the data collection period, schools A and C were observed to have a strong emphasis on nurturing a learning culture through 'mandated,' job-embedded, TPD structures such as PLCs and AR, aligning with overarching reform objectives. While initially adhering to predefined structures and bureaucratic expectations associated with PLCs and AR, both schools have adapted over time in response to challenges. To address concerns regarding increased workload associated with AR documentation, principals at both schools made slight adjustments while upholding the integrity of the process. School A modified the documentation to mitigate identified challenges, while school C mandated biennial AR participation, maintaining the prescribed reporting format, in acknowledgement of teachers' workload concerns. Fostering collaborative AR, while adhering to PLC structures, among peers could effectively address issues related to time constraints.

Meanwhile, school D's principal, Angela, prioritised strengthening of the instructional core with a concentrated focus on classroom practices. However, instead of adhering strictly to predefined structures, she employed strategies based on her own reflections, experiences, and readings. This flexibility allowed the system (the school) to adapt to its unique circumstances and needs. Angela's approach to TPD implementation was informed by her belief in the importance of personalised and contextually relevant TPD and this is consistent with the belief that effective TPD should be based on a site-or school-based model (Guyassa, Olana and Disasa, 2021). This approach allowed her to identify specific challenges and areas for growth within the school community and tailor the TPD activities to address these needs directly.

School B's principal adopted a somewhat different approach from the principals of the other three schools, by directing attention towards enhancing the physical environment as an initial step in fostering a conducive learning atmosphere. This strategic focus stemmed from the principal's confidence and perception of critical needs within the school context, reflecting an adaptive leadership approach in the pursuit of school reform. Collectively, these

examples highlight the pivotal role of school leaders in adapting and integrating TPD strategies within the school context to support and drive educational reform initiatives, hence addressing SRQ2 *"What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement TPD initiatives in schools?"*.

The preceding finding also emphasises that a school's collective capacity to implement reform relies heavily on the strength of the principal, whose influence significantly impacts the success of TPD initiatives, whether mandated, external, or internal. The approaches of the four principals play a significant role in determining the direction and emphasis of reform initiatives. Notable distinctions exist among these schools, showcasing the nuanced strategies employed by the leaders and how their decisions impact various aspects of the school learning environment. Their dispositions are shaped by beliefs, knowledge, skills, and to some extent, the policy requirements to which they are held accountable (Harris *et al.*, 2017).

This study confirms and expands other studies' findings on how principals shape reform initiatives in their respective schools by influencing the culture and structure conducive for TPD linked to educational reform (e.g. Buttram and Farley-Ripple, 2016; Day and Gu, 2007; Qian and Walker, 2021) – a seemingly crucial process in all schools. Capacity building for school principals is then crucial to strengthening their role as engineers of positive learning cultures in schools, hence addressing SRQ4 *"What policy and other contextual conditions would be necessary to support such an effective TPD system?"*

9.2.1.2 Aligning internal structures and external environments for synergistic reform

The interaction between and therefore synergy of internal structures and external environments significantly influences the capacity of school leaders and teachers to embrace and implement reform efforts. Two sub-themes emerge from the findings to highlight the possible interactions between external and internal environments: firstly, the schools' reliance on externally mandated TPD, and secondly, the need for ongoing and consistent support during the implementation process.

All four schools yielded data that highlight the challenges associated with the cascading TPD delivery approach, including a lack of comprehension, varying expectations, and dilution of information, thus aligning with the findings reported by Bush et al. (2019) and Hiew and Murray (2018). Despite these limitations, a significant revelation emerges — namely, the substantial reliance of school leaders and teachers on externally mandated TPD. Despite acknowledged cascading approach limitations, teachers heavily relied on externally mandated TPD to navigate curriculum and assessment changes – perhaps indicative of the relatively weak internal school-based TPD. However, further exploration of the cross-case findings reveals differences in how the participants from each case perceived and interpreted their TPD experiences. For example, there are varying opinions among participants about the value of mandated courses. While ten participants found them essential for staying informed about educational reform and policy changes, others perceived them as inadequate, with concerns about their relevance and impact on regular teaching responsibilities. However, neglecting the significance of mandated TPD would disregard a crucial external support mechanism essential for ensuring teachers are well-prepared and responsive to broader educational shifts, including whole system school reform policies.

As previously discussed, the findings emphasise a dual necessity: recognising the importance of external guidance while also acknowledging the critical need to enhance teachers' ability to reflect on the knowledge and skills acquired through TPD, enabling them to contextualise their learning based on their learning needs. This relationship and alignment enable them to contextualise their learning according to their specific needs, a critical aspect moving forward. The study's revelations emphasise that, despite the drawbacks of the cascading approach, it stands as an indispensable method within the Malaysian educational landscape, due to reasons discussed in Chapters 1 and 2. Culturally, it is strongly embedded. The reliance on externally mandated TPD showcases its practical utility as a way of keeping Sabah school leaders and teachers abreast of essential policy changes. Therefore, while efforts should be directed toward addressing the shortcomings of the cascading approach, it is equally imperative to value and optimise the external support provided by mandated TPD (Dimmock et al., 2021; Ho and Dimmock, 2023). This dual recognition serves as a

foundation for equipping teachers not only to adapt to evolving educational landscapes but also to proactively initiate transformative changes within their schools (Fullan, 2016).

In line with the finding above, creating a proactive and empowered teaching community is essential, fostering an environment where teachers are not merely reactive to external mandates but as professionals welcome the opportunity to be equipped to initiate positive changes aligned with the evolving needs of the educational system (Fullan, 2016). The pivotal role of reflection in TPD (Korthagen, 2017) – alongside knowledge as a basis for reflection - cannot be emphasised enough, acting as a cornerstone for learners to make sense of their experiences and establish meaningful connections with their existing practices (Clarke and Hollingsworth, 2002).

Hence, the alignment of externally mandated TPD with school-based initiatives emerges as crucial for preparing school leaders and teachers to effectively implement reform initiatives within their unique contexts. This notion resonates with the suggestion put forward by Dimmock et al. (2021) in the context of educational reform in Vietnam. Mandated courses primarily focus on disseminating policy initiatives and knowledge, while school-based TPD takes this a step further, enabling deeper understanding and skill development with the potential for adaptation to specific school contexts. This alignment ensures not only the effective transmission of policy goals but also empowers teachers with the insights and practical strategies required for seamless integration within their unique school environments.

However, the successful integration of mandated and school-based TPD relies on contextual factors, including the leadership, culture and structure of school organisations. Additionally, continuous support especially throughout the early implementation phase is deemed essential to facilitate the translation of acquired knowledge and skills into practical application. Notably, the emphasis on the source of this support seems to vary across the schools. For instance, teachers in schools A and C emphasised the critical nature of ongoing support from the SLTs. In contrast, teachers in schools B and D emphasised the importance of support from external trainers, policymakers, or high-ranking officers at the MOE. School B, particularly, emphasised the critical need for

feedback and clear communication of goals to support their efforts in interpreting and implementing reforms. Ahmed stated that monitoring and evaluation of reform initiatives should be integrated into the implementation process to ensure successful school transformation and the fulfilment of objectives outlined by the MEB 2013 – 2025. Such integration arises from the necessity to tackle issues like misinformation or information dilution, especially when employing a cascade model delivery system at the grassroots level. Additionally, FG participants in schools A, B and D highlighted the need for external coaches to support their efforts in understanding and implementing curriculum and assessment change.

Further, the principals of schools A and C indicated that feedback and recognition from external education personnel serve as positive reinforcement, confirming their alignment to the broader policy goals. Insights gleaned from the four case studies emphasise the paramount importance of continuous support and feedback from external stakeholders throughout the implementation of reform initiatives in schools. These insights highlight the collaborative efforts required for sustainable educational reform and emphasise the pivotal role of external support in driving meaningful change within educational contexts. Hence this study has shed light on the broader significance state and district level personnel – the middle-tier management within the Malaysian educational system. As policy objectives are transmitted top-down to teachers, it is crucial to establish supportive processes at the state and district levels of management. This topic is further discussed in section 2.

Currently, the findings of this study highlight the potential weaknesses in the middle-tier support mechanism, despite the objectives outlined in the MEB 2013 - 2025, which emphasised the focus on district transformation programmes to strengthen the capacity of district leaders and coaches. Evidence from all case studies and the review conducted by Bush et al. (2019) indicates inconsistencies and insufficient support from district personnel regarding the translation of policy aspirations into actionable steps within schools. Furthermore, since the programme solely targets district personnel, there exists a gap in enhancing leadership capacity at the state level. Prioritising capacity building for personnel at these levels is equally vital, empowering them to effectively support schools in their TPD endeavours. This holistic approach, encompassing both individual

schools and the broader educational system, is vital for creating a well-coordinated and supportive framework that enhances the success of TPD initiatives comprehensively.

9.2.1.3 Overcoming barriers to TPD learning and the implementation of reforms requires collective effort by educators and policymakers

In addressing the main RQ *"How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?"*, the evidence explicitly highlights the challenges associated with implementing reform initiatives, which impede successful and genuine implementation. These challenges are multifaceted and demand a comprehensive approach to address the complex issues, as articulated by Hallinger and Lee (2011). By understanding the dynamics of TPD – as illustrated in all four case study schools, educators and policymakers need to work collectively towards an effective and sustainable TPD framework.

Challenges in implementing educational reforms

Managing the challenges in implementing educational reforms is common across the four schools. Such challenges suggest there is need for a commitment to ongoing learning, adaptability, and recognition of the complexities associated with reforms. The barriers and challenges to reform, especially those evidenced by mandated TPD as shared by the participants across the case studies are summarised in the diagram below (Figure 9.1).

Educational Environment	Policy goals and communication	TPD Process	Content Focus
• Disconnection in education management • Resource constraints • School culture issues	• Misconceptions and ambiguity • Inadequate support • Inconsistent support • Frequent policy change	• Delivery issues • Implementation issues • Excessive documentation • Activities overload • Weak feedback loop	• Exam-focus vs. holistic (transversal skills) focus

Figure 9.1: Common challenges to implementing reform initiatives through TPD in case schools

Consistent with the findings by Bush et al. (2019), challenges in the broader educational environment, including disconnection among education management levels (i.e. federal, state, district, school), resource constraints, and how to establish a positive learning culture, are evident in all case studies. Common struggles in all four schools also include unclear communication and goals - which result in misconceptions, inadequate and inconsistent support and frequent change in policy goals. TPD processes present challenges in all stages - planning, delivery, and implementation stages, along with concerns about excessive documentation, and bureaucratisation.

Moreover, there is a difficulty in striking the right balance between content in TPD that focuses on exams and content that focuses on new pedagogical approaches to promote transversal skills for holistic development (as set out in the 2013 Malaysian educational reforms). This generates a conflict between teachers' perceived needs and the expectations outlined in educational policies. The conflict stems from the over emphasis on producing better academic performance by students, thus reflecting well on the SED and DEOs – and the federal government reform policy emphasising more transversal skills and student-centred learning. The conflict leads to school leaders' and teachers' confusion over which goal to fulfil. Teachers in the case schools became frustrated due to the inconsistency and misalignment of policy goals, echoing Ibrahim et al.'s (2015) study. The situation is further complicated by the absence of guidance and support during implementation, leading teachers to either make superficial changes, adapt the initiatives, or reject them entirely – given their contextual constraints.

Influences on TPD effectiveness: perspectives from participants and observational data

Although data showed common features and conditions contributing to effective TPD addressing reform policies across the four schools, nuanced differences emerged due to specific contexts, priorities, and challenges unique to each school. A key finding of this study is an emphasis on TPD being relevant and specific to the unique needs of both teachers and students, as discussed in previous section, with a focus on practical content that supports improved exam performance in all the case study schools as well as pedagogical reform to

include student-centred learning and a more holistic curriculum. The significance of effective delivery of TPD and the need for follow-up support during implementation are common features across all schools. However, the specific considerations within delivery (trainer capacity, participant engagement, organisation and duration) and the nature of follow-up support will expectedly differ in emphasis or implementation approaches. For instance, school B's leaders and teachers require additional guidance in establishing a positive learning culture, whereas schools A, C, and D have already made strides in this regard. Consequently, the latter group would benefit from support in monitoring and evaluating their existing processes.

To overcome barriers to reform implementation, the principals of the four case schools mobilised SLTs and teacher leaders as a strategy to cope with the multiple demands of the policy initiatives. All four principals entrusted their senior and middle leaders to ensure compliance with the district and state's expectations with the responsibility to check the completion of mandated TPD activities and report submissions. In this way, the principals demonstrate a decentralised and self-organising aspect – albeit one that endorses bureaucratic imperatives. In a complex adaptive system, local interactions and decision-making contribute to the system's overall behaviour and adaptation.

Additionally, however, and somewhat unexpectedly, given the top-down, bureaucratic nature of Malaysia's education system, schools A, C and D exhibited signs of distributed leadership, and to some extent, transformational leadership. In Malaysian schools, leadership is distributed according to hierarchy – the principal, senior assistants, head of departments and head of panels (see Table 4.1, Chapter 4). However, from the findings of the four case studies, it is evident that the efforts of the principals to empower both formal and non- formal leadership positions to cope with reform implementation reflects the practice of transformational leadership rather than mere distribution. School A's principal exemplifies this practice by empowering teacher leaders to serve as mentors to their peers. Moreover, the SSLT and MLT at the school were observed actively participating in regular problem-solving discussions. This collaborative approach enabled them to address and resolve daily challenges that arose within the school more effectively.

In schools C and D, the practice of transformational leadership was evident through the capacity-building efforts of the SSLTs and MLTs by the principals. Additionally, collaborative partnerships between school leaders and teachers were evident across all three schools exemplifying distributed leadership practice. The findings also point to the empowerment of the MLT to take on leadership roles in planning and facilitating school-based TPD - including PLCs and in-house training for their departments and subject teachers as mentioned earlier in this section. In essence, this study demonstrates how the four case schools exhibited signs of both distributed and transformational leadership as it showcases how leaders empower others, engage in collective decision-making, and foster a culture of collaboration and innovation, which are key aspects of both leadership paradigms, hence addressing SRQ2 *"What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement PD initiatives in schools?"* and SRQ4 " *What policy and other contextual conditions would be necessary to support such an effective TPD system?"*.

However, the findings reveal that school leaders, from SSLT to MLT, expressed a lack of capacity building relevant to them in their role of supporting TPD processes in schools. Addressing the capacity-building needs of school leaders would help ensure that they are equipped with the necessary skills and knowledge to lead and manage TPD initiatives for their teachers. Consequently, this strategic approach would enhance the overall effectiveness of TPD, promoting a more supportive and conducive learning environment for both teachers and students. As such, in addition to recognising and addressing teacher readiness to learn, the capacity building of school leaders themselves emerges as another crucial consideration in the strategic planning of TPD initiatives for educational reform in schools.

A key concern prevalent across all four schools is the lack of specialised training for school leaders overseeing school-based TPD (Aldridge and McLure, 2023). There is a collective proposal from the participants among the case study schools for leadership capacity building, specifically focusing on training in school-based TPD management. As highlighted by Pont et al. (2008, p.31), leadership models are not universally transferrable across various school and system contexts. Each school's environment imposes unique constraints or

presents distinct leadership opportunities (Hallinger, 2018). School leaders confront diverse challenges depending upon their specific contexts. Constructing school leadership policies requires a nuanced understanding of individual school contexts and their specific challenges. Addressing this aspect is deemed critical for maximising the impact of TPD initiatives.

Participants acknowledged that the TS25 programme aims to address the gap in leadership capacity building. However, as consistently emphasised in the findings, the programme faces numerous implementation challenges, including issues related to policy borrowing, theoretical complexity, and inadequate practical support during implementation process at school-level, leading to confusion, frustration and rejection of the intended reforms. Nurturing leadership capacity to improve the provision of TPD to align with the contextualised needs of schools and teachers implementing reforms should be a targeted priority.

9.2.1.4 Tailoring TPD initiatives

Tailoring TPD content to teachers' diverse backgrounds is emphasised as a need across all case study schools, aiming to enhance relevance and applicability. Capacity building initiatives should align with the needs of the school leaders and teachers, emphasising the importance of conducting a needs assessment, as highlighted by Ahmed and supported by evidence from each case study. It is crucial to recognise that TPD needs are influenced by contextual elements (Hargreaves and Fullan, 1992; Day and Gu, 2007; Kyndt *et al.*, 2016). Assessing the strengths and improvement needs of each school within their unique contexts will lead to a significant impact on capacity building efforts.

For example, in school C, the commitment to excellence by school leaders, teachers and students fosters an environment where innovation and continuous improvement are valued as integral to its daily operation. Despite encountering some resistance, school leaders and 9 of the 10 FG participants in school C demonstrated openness to new strategies. The distinguishing factor in school C was the principal's effective management of challenges by modelling learning agility and his effort in mentoring other leaders and teachers in the school by leading the transformation required for the reform agenda. In this instance, the

principal's understanding of addressing teachers' resistance was evident in his ability to instil extrinsic, instrumental motivation for embracing change among the staff. However, to ensure sustainable reform movement, school C's principal would benefit from capacity building efforts that focus on fostering intrinsic motivation among his staff.

Additionally, all the FG participants mentioned that their students' competitiveness and access to additional resources contribute to a culture of academic excellence in school C. It is worth noting that the principal's prior roles as a middle leader and senior assistant in the same school provided him with a unique advantage in having a deeper understanding of his staff compared to the principals in the other three schools. Consequently, the overall environment in school C is conducive to high academic achievement, thanks in part to the competitiveness and resources available to the students. Importantly, this culture serves as an instrumental motivation for teachers. Not only does it inspire them to enhance their teaching methods, but more fundamentally, it encourages a heightened focus on engaging students effectively. The instrumental nature of this motivation stems from the external factors of competitiveness and resource availability, highlighting how these elements act as catalysts for teachers to strive for continuous improvement in their teaching practices.

However, the forthcoming retirement of one FG participant highlights a concerning trend: not only did he lack intrinsic motivation, but he also lost his instrumentalism towards new learning. This evidence explicitly illustrates the critical need to assess and address participants' motivation and engagement levels in TPD planning and implementation to ensure meaningful and sustainable outcomes. It emphasises the necessity of TPD programmes that are flexible, responsive, and tailored to the diverse needs and experiences of the targeted participants, a principle supported by findings from Hiew and Murray's (2018) study.

School B's and D's leaders and teachers emphasised the critical need for context assessment, recognising the challenge of policy borrowing and the resulting mismatch between policy aspirations and school realities. Furthermore, all 51 participants voiced concerns regarding the cascade training method, highlighting

its tendency to employ a 'one size fits all' and 'one-off' approach, which often failed to strengthen the capacity of school leaders and teachers in translating reform initiatives into action steps suitable for their own contexts. For the four principals, their understanding and interpretation of TPD initiatives were consolidated by other means, such as further reading or watching YouTube videos. Except for one teacher who also admitted to watching YouTube videos, the rest of the FG participants relied on their colleagues and peers from other schools to facilitate sensemaking. Hence, in response to the main RQ *"How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?"*, TPD initiatives, especially cascaded and one-off sessions, are insufficient to build capacity of school leaders and teachers to implement reforms in schools. This evidence suggests that TPD should be ongoing and adaptive to meet the diverse types of learners from various settings, addressing the concerns raised in SRQ3 *"Taking into account the views of teachers and school leaders, what would constitute an effective PD programme that might enable the successful implementation of the Malaysian government reform agenda in Sabah secondary schools?"* and SRQ4 *"What policy and other contextual conditions would be necessary to support such an effective PD system?"*.

This study highlights the importance of tailoring TPD to align with the practical needs and preferences of teachers (Widodo and Riandi, 2013; Korthagen, 2017), while also addressing specific problems in schools across varying localities (Desimone and Garet, 2015), ensuring a more seamless integration into their existing instructional approaches. Additionally, recognising the centrality of school leaders in the effective implementation of TPD, it becomes evident that providing targeted PD for these leaders *per se*, is essential. As previously discussed, school B's principal could benefit from PD programmes aimed at addressing resistance to change among staff and mentoring school leaders and teacher leaders to enhance the collective capacity of the school in embracing and adapting reform initiatives. This approach would enable him to reduce reliance on external sources. Recognising teacher agency is significant (Nguyen et al., 2020) in tailoring TPD to the diverse needs of participants, who are much

influenced by their contexts. This acknowledgement highlights the empowering role of autonomy in fostering an active and engaged approach to TPD.

9.2.1.5 Fostering a culture of continuous and collaborative learning

In response to SRQ3 *"Taking into account the views of teachers and school leaders, what would constitute an effective TPD programme that might enable the successful implementation of the Malaysian government's reform agenda in Sabah secondary schools?"*, active learning emerges as a shared feature, encompassing strategies such as group activities, discussions, and practical sessions to enhance understanding and application, confirming findings from previous studies on TPD (Darling-Hammond et al., 2017; Timperley et al., 2017; McMillan and Jess, 2021). A common aspiration exists for a collaborative learning environment that extends beyond formal settings, encompassing knowledge exchange, discussions, and fostering a cooperative and collaborative culture among teachers. Central to all four case studies is the preference of all participants to learn from informal discussions with peers or colleagues, either to solve problems or to interpret reform initiatives. This collegiality influences the participants' capacity to understand and interpret reform initiatives (Fullan, 2016), enabling them to implement these initiatives in their classrooms. Such evidence aligns seamlessly with the core principles of learning theories discussed in Chapter 2, particularly emphasising social learning within a community of practice and the power of teacher learning within a social setting, heavily influenced by their peers (Wenger, 1998; Visone, 2019; Bergmark, 2020). Informal learning, particularly through teacher interactions supported by school leaders and colleagues, becomes vital in enabling teachers to contextualise their learning based on their specific needs and sustain their commitment to improving practice (Fullan, 2016).

However, as noted in the previous chapter, the absence of systematic structure that includes data-driven practice, clear goals, feedback and reflection cycles to evaluate learning tend to reduce the impact of such practices. Participants mainly use these interactions to share problems and exchange ideas but continue to work individually in their efforts to improve practices and implement reform initiatives. To address the need for a more structured approach, efforts should be directed towards establishing a systematic process

aimed at fostering collaborative TPD processes, thereby enhancing collegiality and building the collective capacity of teachers to effectively implement reform agendas.

A common thread emerges from the four case studies, highlighting the crucial role played by senior assistants, middle leaders, and teacher leaders as internal support mechanisms within schools, fostering a conducive environment for TPD and continuous learning. Participants perceive this internal leadership and support framework as a significant contributor to the successful integration of reform initiatives into daily practices, facilitating a culture of continuous learning and collaboration. Within this framework, establishing supportive processes such as monitoring, coaching, and mentoring of teachers is deemed essential to promote ongoing growth and collaboration in schools. Therefore, empowering middle leaders to mentor teachers and promote a collaborative learning culture is identified as a key strategy in nurturing continuous learning practices. Furthermore, granting school leaders the authority to provide essential structures, including time, design, and resources, reinforces the significance of organisational support in sustaining collaborative learning initiatives.

All five themes extend our understanding of key considerations for a successful transition from TPD to classroom practices, ultimately enhancing student outcomes. This understanding is vital for evaluating the overall impact and effectiveness of TPD initiatives in enhancing teachers' capacity to implement reforms across diverse educational settings (King et al., 2023). Figure 9.2 illustrates the potential trajectory of TPD initiatives leading to the implementation of reforms within the classroom as evidenced by the four case studies.
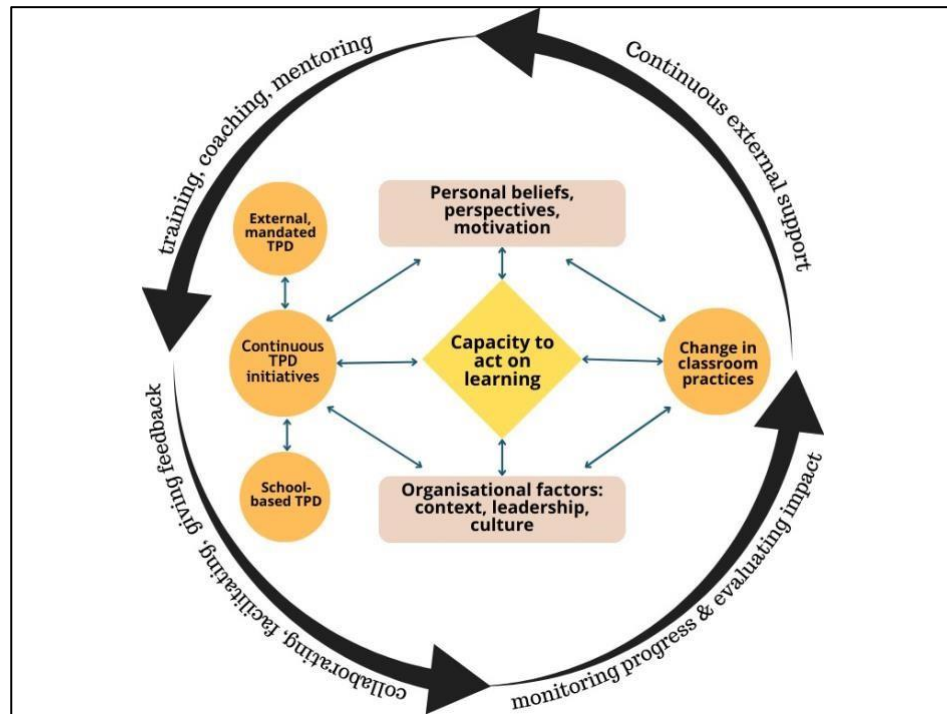
Figure 9.2: Potential trajectory of TPD initiatives leading to the implementation of reforms

The process in Figure 9.2 represents the complexity of reform implementation exemplified by continuous TPD initiatives. On the one hand, successful TPD necessitates collaboration among diverse stakeholders and careful consideration of numerous factors and contextual conditions to effectively support the implementation process as discussed extensively in the literature (e.g. Fullan, 2016). On the other hand, understanding a schools' capacity and the nuances of factors and contextual considerations could inform TPD providers and policymakers and help them to improve TPD planning processes (Hudson et al., 2019; Stoll, 2020). It is, therefore, seems imperative to conduct an analysis of the current capacity of schools in order to determine their needs with regard to TPD initiatives (discussed in 9.3.2.1). This analysis helps ensure that TPD programmes are tailored to address the unique requirements and challenges faced by each school, ultimately enhancing the effectiveness and relevance of the initiatives implemented.

9.2.2 Key dimensions from analysis of propositions

In addition to the findings' analysis, the process of formulating a TPD model is further supported by utilising Bogdan and Biklen's (2007) Modified Analytic Induction (MAI) method and yielded 38 propositions. Each proposition is a

concise summary of what is deemed good practice in support of teacher and leader capacity building in school efforts to implement government policy reform. Following Stake's (2006) 'step by step' cross-case analysis approach detailed in Chapter 3, the propositions were carefully examined and sorted based on their capacity to foster system-wide educational reforms through TPD. This meticulous process resulted in the identification and endorsement of a total of nine condensed statements or 'assertions' (Stake, 2006) as depicted in Table 9.1.

Table 9.1: Assertions from Sabah case studies based on 38 propositions

1	Delivering PD for school leaders, emphasising the need to enhance their ability to lead change, adapt strategies to different contexts, and improve their skills in managing and organising continuous, school-based PD.
2	Empowering internal school catalysts is vital – e.g. through the implementation of job-embedded PD, the promotion of self-directed and peer learning, the empowerment of middle leadership teams, and the facilitation of collaborative efforts between school leaders and teachers.
3	Customising TPD programmes is crucial to enhance their effectiveness, encourage active participation, and ensure that learning experiences directly align with the needs of participants and the overall educational context. Findings also indicate the importance of aligning mandated and school-based continuous TPD to facilitate sensemaking of reform initiatives within unique educational contexts.
4	Prioritising the importance of adept PD trainers for mandated programmes, who understand and address challenges in implementing global and national reform policies at the local level, and who address the negative impact of insufficient or diluted information on educational reforms, is crucial. These considerations underscore the need for carefully designing and executing mandated TPD initiatives to ensure their relevance, success, and positive impact across diverse educational settings.
5	Promoting collaborative initiatives within the education system is vital e.g. By emphasising middle-tier management development, focusing on leadership skills, reform knowledge, and recognising their diverse responsibilities to foster effective liaisons between the central government and schools, offering tailored support in varying educational contexts.
6	Clear communication of goals and ongoing learning from evaluations are essential for continuous improvement in TPD delivery processes, concurrently mitigating issues such as misconceptions and tensions, as revealed by the findings.
7	Empowering teachers to effectively apply knowledge gained from mandated TPD programmes requires equipping them with reflective skills, proficiency in utilising relevant data, fostering opportunities for social interaction, and promoting collaborative problem-solving practices. Ensuring active teacher engagement in TPD necessitates addressing factors such as minimising unnecessary bureaucratic workload.
8	A well-structured onboarding process and careful, intentional strategic planning, including consideration of end goals, equal access, and some degree of teachers' ownership, is crucial for enhancing the overall effectiveness of TPD initiatives within educational reform plans.
9	Tailoring effective TPD support for diverse participants and contexts necessitates a systematic approach, involving contextual assessments, pilot studies in various settings, and specific attention to the unique contexts of Malaysian schools.

The nine assertions above were then organised into three dimensions centred on common themes. These dimensions are identified as follows: 'Adaptive and collaborative professional growth' (Assertions 1, 2, 3, 8 and 9), 'Empowering internal catalysts' (Assertions 1, 2, 7 and 8) and 'Strengthening systemic support structure' (Assertions 1, 4, 5, 6 and 9) – all of which are illustrated in Figure 9.3. The clustering of assertions reveals some overlaps, emphasising their integral components and highlighting the interconnected nature of these elements.
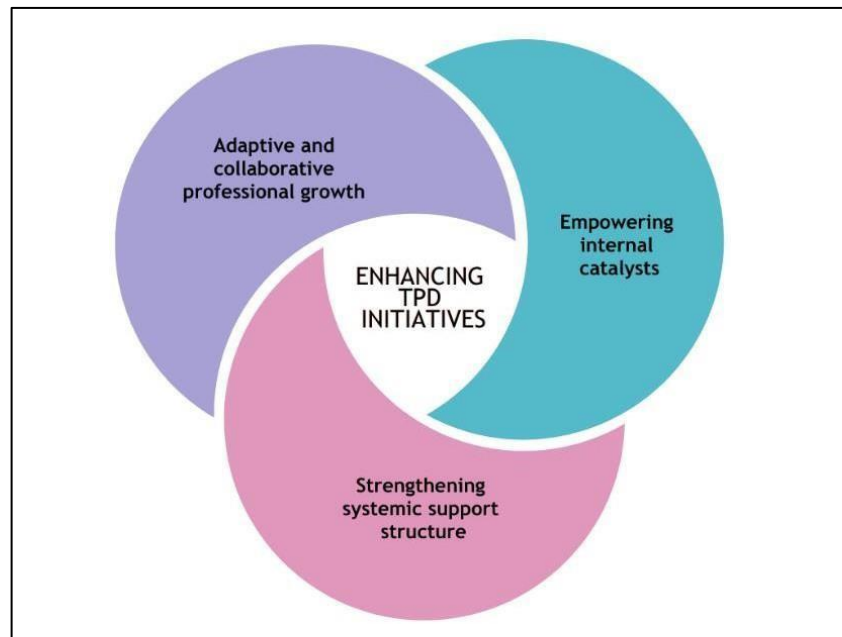
Figure 9.3: Common themes from assertion clusters on enhancing TPD initiatives

In selecting 'labels' for each dimension, the researcher emphasises key considerations such as the approaches, stakeholders, and environment involved in fostering system-wide synergy within the context of educational reform. Each dimension is elaborated below.

9.2.2.1 Dimension 1: Adaptive and collaborative professional growth

The evidence gleaned from the present case studies strongly suggests that the educational system – at both macro (federal level) and micro (school level) - operates as a dynamic and ever-changing complex adaptive system. This intricate nature of the system calls for a nuanced and adaptive approach to TPD for both school leaders and teachers. The fundamental principle of adaptive development approaches emphasises the critical need for flexibility and customisation in the design of TPD initiatives tailored for both school leaders

and teachers, in line with the notion of adaptation in the school and classroom contexts (McMillan and Jess, 2021). By tailoring these initiatives to diverse contexts, school leaders can provide relevant support to ensure that TPD learning results to positive change in practice across various educational settings.

The first step in adaptive TPD would be to identify the current capacity of schools to determine its strengths and improvement needs, as discussed in section 9.3.2.1. In addition to comprehensive context assessments, this study's data suggests that supporting diverse participants and contexts in TPD requires a systematic approach, including pilot studies in a variety of settings, and a continuous process of evaluation for improvement, echoing the need for a more robust feedback loop as proposed by Bush et al. (2019). The latter suggests a systematic process of gathering, analysing, and acting on feedback to foster continuous improvement and responsiveness to stakeholder needs. Such comprehensive planning and attention to detail contribute to the success of tailored TPD initiatives and ensure their relevance and impact across diverse educational landscapes.

While adaptive TPD approaches are valuable, their standalone implementation cannot ensure the long-term sustainability of reform movements in schools. Success hinges on empowering internal catalysts who can consistently drive, monitor, and reflect upon the progress of these reform initiatives.

9.2.2.2 Dimension 2: Empowering internal school catalysts

Empowering internal catalysts for reform is crucial as it taps into their unique understanding of the local context, fostering commitment, aligning with school culture, and ensuring sustained success in educational initiatives within schools. This research is supported by the findings by Hallinger and Heck (2010), who demonstrated that collaborative school leadership positively influences student academic performance. The success of school C in attaining benchmark status for the TS25 programme highlights the efficacy of collaborative practices among school leaders and teachers, as revealed by this study. The importance of collaborative leadership in driving school improvement initiatives is thus reinforced and suggests that successful collaboration can lead to significant

school improvement and student achievement. Additionally, continuity in leadership for more than three years at school C has played a vital role in cultivating a positive school culture that supports ongoing reform. In contrast, schools A and D, facing challenges in promoting a culture of learning, encountered resistance due to recent changes in leadership. The passive resistance observed among teachers in these schools is understandable given the newness of leadership. School B, with a newly appointed principal, struggled to establish a learning culture independently, thus relying more on external sources.

The findings of the present study echo Stoll's (2020) call to cultivate capacity for learning at both individual and collective levels, while acknowledging external factors. This study emphasises the importance of empowering school leaders and teachers with essential skills to navigate the complexities of educational reforms and adapt them to their school environments, in alignment with the MEB's aspiration to cultivate a 'peer-led culture of excellence' (MOE, 2013, pp. A-38). These skills include nurturing school leaders' capacity to prepare and utilise resources, fostering conducive learning environments, effectively employing data driven decision making, promoting collaborative practices, and monitoring progress through feedback and evaluation processes. Further discussion is found in section 9.3.2.1.

9.2.2.3: Dimension 3: Strengthening systemic support structures

As educational reforms cascade from the central MOE to individual schools, the role of middle-tier management becomes crucial for ensuring effective communication, implementation, and evaluation of policies. This may foster overall cohesion within the hierarchical educational system and potentially address the issue of a 'weak feedback loop,' as identified in the study conducted by Bush et al. (2019). Nevertheless, discrepancies in this group's roles in supporting schools in their reform efforts have been identified in the findings, affirming the observations made by the 2019 study.

Prioritising capacity building at the middle-tier management levels to critically make them feel supported and challenged may serve as proficient liaisons between the central government and schools (Constantinides, 2022). Examples

of professional capacity development for middle-tier management would include enhancing their capacity to interpret and effectively communicate the reform agenda, as well as to support school leaders and teachers in establishing and embedding essential infrastructure and processes for collaborative TPD learning. By nurturing the capacity of the middle-tier management, the gap between policy formulation at the federal government level and implementation at the school level can be bridged (McAleavy et al., 2018). This strengthens the systemic support structure for TPD initiatives and fosters positive change across educational settings. Concurrently, it helps mitigate issues such as misconceptions and tensions, as revealed by this study's findings.

9.3 Section 2: Sabah emergent TPD model for educational reforms

Combining both key themes from the cross-case analysis and the grouping of propositions, this study proposes a TPD model for educational reforms, depicted in Figure 9.4. The Sabah Emergent TPD (SET) model captures the key dimensions for a context-sensitive TPD system based on the evidence from four case study schools in Sabah.
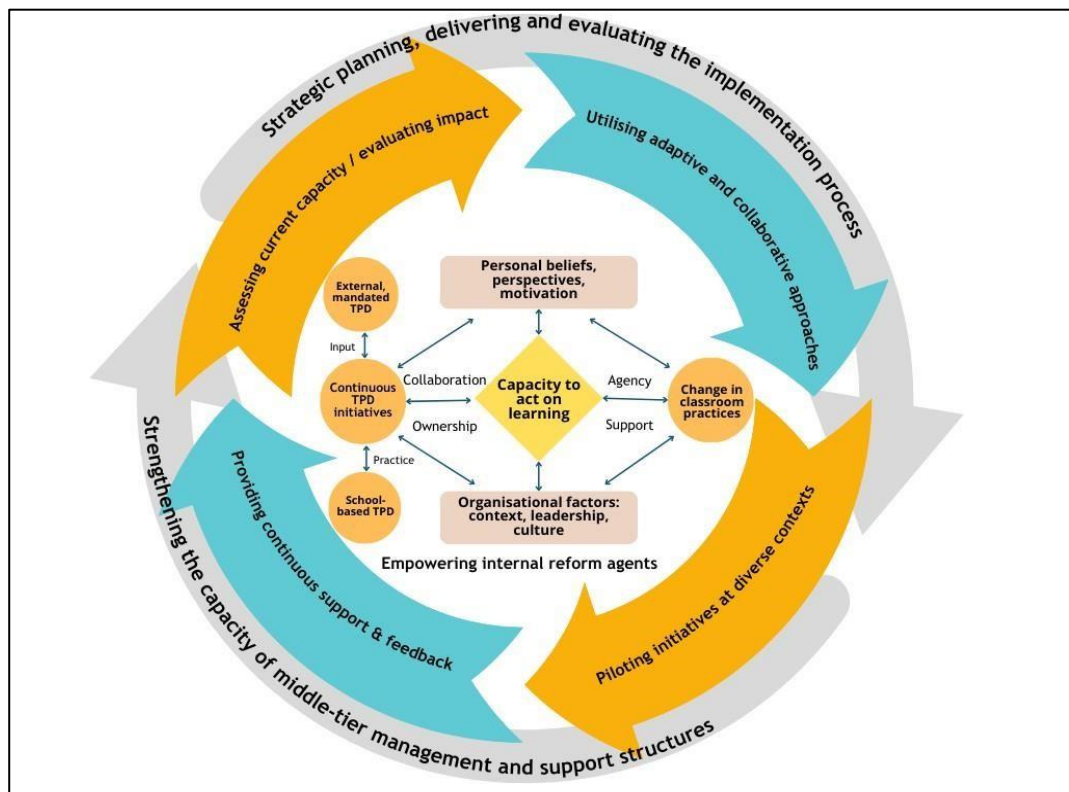
Figure 9.4: SET model for enhancing educational reforms

The proposed SET model aims to address the dynamic needs of teachers and schools in implementing educational reforms effectively. Comprising three distinct layers, this model offers a comprehensive approach aimed at nurturing the collective capacity of school leaders and teachers to navigate and implement reform initiatives in their diverse contexts. Each layer is elaborated below.

9.3.1 Empowering internal reform agents

At the heart of successful TPD lies the empowerment of internal catalysts—school leaders and teachers—who drive innovation, collaboration, and professional growth within their respective school communities and ensure such growth and improvement is reflected in teaching and learning practices. Empowered school leaders and teachers serve as key catalysts for driving educational reforms within schools (Fullan, 2016; Hallinger, 2018; Aldridge and McLure, 2023). By assuming leadership roles, they amplify their collective influence in effecting positive change. This empowerment facilitates ongoing monitoring, evaluation, and adaptation of the reform agenda to fit local contexts and circumstances. Efficient internal catalysts foster sustainability and reduce dependence on external expertise, promoting the growth of intellectual capital (Dimmock, 2012; Admiraal et al., 2021).

This dimension emphasises the significance of aligning both external and school-based TPD to provide a continuous process of learning. External, mandated TPD activities potentially enhance knowledge of policy reform and the new skills needed, but may have a limited role in skills acquisition. Teachers may then acquire these skills and apply them through participation in school-based job-embedded TPD such as PLCs, AR projects, or other learning opportunities. This approach enhances their understanding of concepts and enables them to translate learning into action, especially when the learning is done collaboratively. As revealed by the participants and data from the field observation, collaborative learning offers opportunities for teachers to be active in discussing solutions, addressing confusion and thus increasing engagement. Moreover, this social process fosters a sense of ownership among participants, as they adapt practices to suit their diverse needs (Fullan, 2016).

As discussed in the previous section, changes in teaching practices are influenced by personal and organisational factors, which shape their capacity and agency in reform implementation. Efforts to empower school leaders and teachers are more likely to succeed when all relevant factors and conditions are taken into consideration, as well as aligning both top-down mandated visions with bottom-up initiatives to enhance learning and change process. Additionally, scholars (e.g. Dimmock, 2012; Admiraal et al., 2021) advocate for school leadership to prioritise "organisational learning" or "learning leadership". This involves strengthening the school's capacity for continuous improvement by developing staff, cultivating a climate of collective learning, and employing data strategically to enhance curriculum and instruction (Pont et al., 2008).

Furthermore, despite the prevalent top-down bureaucratic structure in the Malaysian education system, there appears to be a growing recognition in the nation's wider education system, of the importance of granting autonomy to principals for flexibility and creativity in reform implementation as they are best positioned to navigate and address the complexities and obstacles hindering empowerment initiatives. This shift towards more autonomy, reflected in Shift 5 of the MEB 2013 – 2025, could serve as a strategic approach to address the challenges associated with overcoming barriers to empowerment. Such recognition reinforces the wisdom of PD for principals focusing on building their capacity to act with integrity when using their greater autonomy to enhance TPD for educational reforms. Currently, the evidence highlights discrepancies between the aspiration of Shift 5 and school reality. Although the principals of schools A, C and D seem to embrace distributed and transformational leadership practices, enhanced focus on leading school-based TPD by fostering collaboration among teachers would probably yield greater impact (Admiraal et al., 2021).

9.3.2 Systemic support structure: Middle-tier management

The middle layer emphasises the importance of establishing robust support systems at both district and state levels to facilitate the implementation of TPD initiatives linked to implementing educational reform. This group, comprising state education personnel, district-level leaders and coaches, holds a pivotal responsibility of supporting school leaders and teachers in implementing reforms

proficiently. The SET model proposes a cyclical, four-step process aimed at providing customised support for schools through TPD, while ensuring alignment with broader educational goals and objectives. The inclusion of this middle layer addresses gaps in the literature on the limited discussion over how schools can be supported in their reform implementation efforts particularly in non-western context (McLure and Aldridge, 2023).

9.3.2.1 Analysis of the current capacity of the four case studies in implementing reform initiatives

As discussed earlier, tailored capacity building is necessary for these support systems to effectively establish consistent and relevant support across diverse school settings. To achieve this goal, it is vital to begin with an assessment of the current capacity of the targeted schools.

Based on the discussion in section 1, four broad characteristics of capacity building are identified to help determine the capacity of schools to implement reform (Figure 9.5).

Leadership & support structure (L)	Resource management (R)	Strategic planning and evaluation (S)	Instructional practices & innovation (I)
• collaborative problem solving, shared responsibilities for TPD, nurturing capacity of SLT, MLT and teacher leaders • quality of external support • engagement of various stakeholders	• resource allocation • school-based TPD initiatives	• data driven practices • fostering positive learning culture through collaboration	• teacher adoption of new practices • innovative approaches

Figure 9.5: Evaluating school capacity for reform implementation: key criteria from the findings

In determining the capacity of each case school, the relationship between all criteria is explored (Figure 9.6).
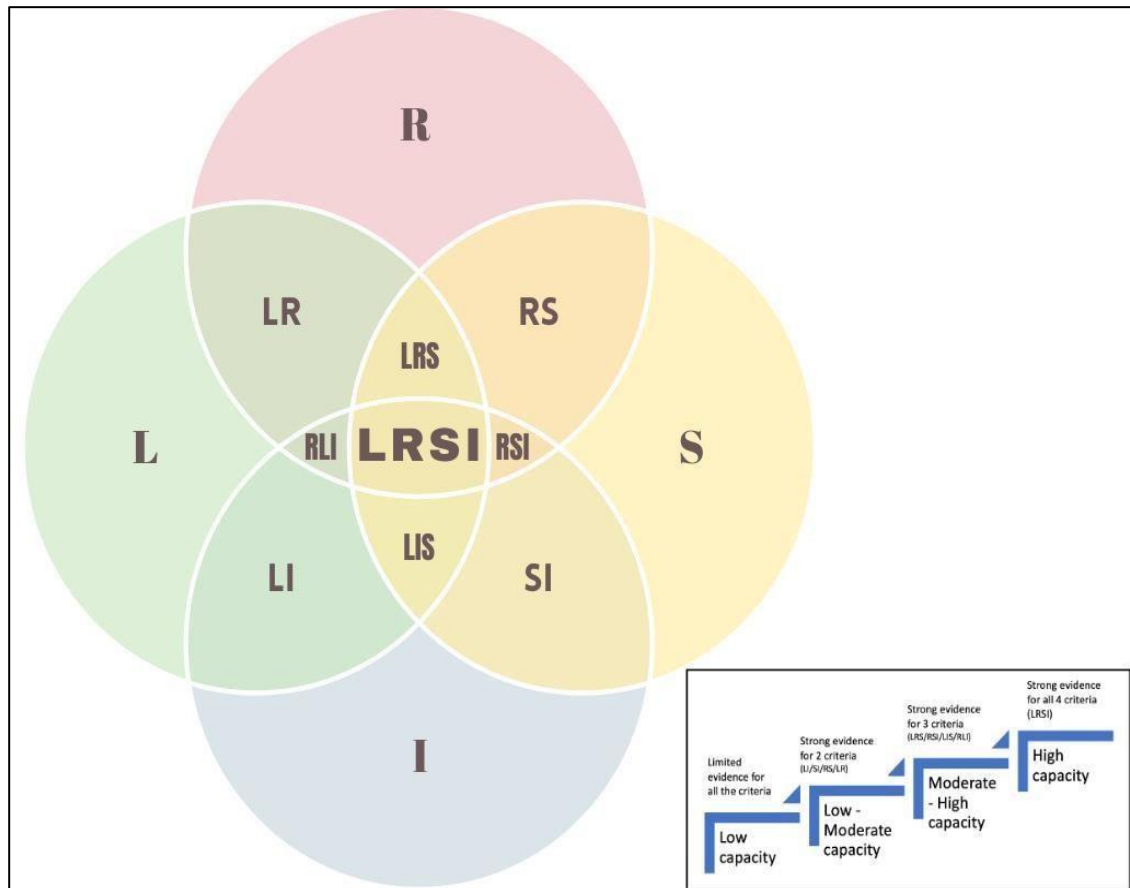
Figure 9.6: The relationship between four criteria and their variations in determining school capacity to implement reform initiatives

Schools showcasing all criteria are deemed highly able to implement reform. Figure 9.6 illustrates the relationship between all the four criteria which will form the basis of assessing the four case study's schools' current capacity for school reform as evidenced by the findings. Figure 9.7 summarises the current capacity of each case study. This information will help determine the current needs of each school to increase their capacity.

School	Evidence	Capacity	Potential TPD needs
A	Strong evidence for 3 criteria: (LRI) Leadership & support structure, Resource management and Instructional practices & innovation. Some evidence of Strategic planning & evaluation - data driven practices	Moderate - High	focus more on fostering positive learning culture through collaboration
B	Limited evidence for all criteria • engagement of various stakeholders • resource allocation • data driven practices (limited to exam results analysis)	Low	All criteria
C	Strong evidence in all criteria: LRSI. However, the quality could be enhanced.	High	Although there were strong evidence for all criteria, the quality of strategic planning & evaluation could be improved, particularly for fostering collaborative learning
D	Strong evidence for 2 criteria: LS Leadership & support structure and Strategic planning & evaluation. Some evidence of Resource management and Instructional practices & innovation.	Moderate	focus more on enhancing instructional practices & innovation through more collaborative school-based TPD initiatives

Figure 9.7: The current capacity of school A, B, C and D to implement reform initiatives

Both the literature review and this study's findings emphasise the crucial role of contextual factors, highlighting the need for tailored initiatives and adaptive approaches. However, defining a clear process for this customisation has proven challenging. The proposed SET model, along with the outlined steps and guidelines for assessing schools' current capacity depicted in this section, offers a feasible and desirable framework for this task. Following the assessment of schools' capacity demonstrated in Figure 9.7, tailored TPD initiatives and targeted support can be devised to strengthen their capacity in implementing reform agendas.

9.3.2.3 Piloting initiatives in diverse contexts

Piloting TPD initiatives in diverse school contexts is vital for the development of effective and tailored TPD programmes - as advocated by Hudson et al. (2019). These initiatives allow educators to customise strategies and approaches to address the unique challenges, resources, and student populations present in each school environment. By testing TPD initiatives in different contexts, educators can identify best practices, evaluate effectiveness, and refine

programmes for broader. Moreover, piloting TPD initiatives can build capacity among middle-tier management at system level and school leaders, fostering a culture of collaboration, continuous improvement, and innovation. It does so by providing opportunities for external and internal stakeholders to share experiences, exchange ideas, and learn from one another, ultimately contributing to the enhancement of teaching and learning outcomes across diverse educational settings.

Additionally, piloting TPD initiatives can help address the problem of policy borrowing, which participants have identified as often unrealistic, echoing Bush et al. (2019) and Ibrahim et al. (2015). By tailoring initiatives to local contexts, more sustainable and contextually relevant TPD programmes can be realised that meet the specific needs of schools.

9.3.2.4 Providing continuous support and feedback

During the implementation of the pilot projects, it is essential to provide ongoing support, guidance, and feedback. Tailoring support to specific contextual needs is crucial, including resource provision and collaborative problem-solving between external and internal reform agents. Participants highlighted the significant role of feedback in their professional growth, aligning with the findings of Bush et al.'s 2019 study. For example, the principals of schools A and C felt more confident with the positive feedback received from the district coaches, affirming that the school is on the right track to meet policy aspirations. In contrast, the absence of feedback frustrated school B's principal and FG participants in schools B and D as they claimed confusion or uncertainties in their interpretation and implementation of reform initiatives.

In each of the four case studies, participants stressed the importance of feedback going beyond just telling them if they were doing things right or wrong. They highlighted the need for feedback to also offer guidance and, if possible, practical demonstrations on how tasks should be performed. As revealed by the participants, interpretations of the policy requirements varied among various stakeholders. It is therefore imperative to have clear communication of goals and continuous feedback on the implementation process. By engaging in this iterative process, middle-tier personnel, together

with school leaders and teachers can ensure continuous improvement by remaining flexible and adaptable to the diverse contextual constraints and opportunities present in their environments, while adhering to good policymaking practices (Hudson et al., 2019).

9.3.3 Systemic support structure: policymakers and main TPD providers

This study highlights the gap and vulnerability in the middle-tier support structure, which poses various challenges to reform implementation in schools. Although this thesis focuses solely on TPD initiatives and their role in building the capacity of school leaders and teachers to implement reforms, it is essential to recognise that TPD for educational reform is a collaborative process influenced by multiple stakeholders. The synergy among policymakers, middle-tier management, school leaders and teachers is crucial for the successful implementation of reform initiatives (Hudson et al., 2019). When all stakeholders work together effectively, they can address the gaps in the support structure and create a cohesive environment conducive to meaningful change. Therefore, fostering collaboration and coordination among stakeholders at all levels of the education system would seem to be imperative to ensure that TPD initiatives align with broader reform goals and lead to sustainable improvements in teaching and learning outcomes.

In addition to planning, delivering, and evaluating the TPD process, it is important for policymakers and TPD providers to nurture the capacity of middle-tier personnel. This ensures consistency and quality of support provided to schools. To achieve this, investments in comprehensive training programmes tailored to enhance their instructional leadership, coaching techniques, and data collection and analysis skills are imperative. Moreover, clear role definitions, collaborative structures, and resource allocation are essential to align their efforts with overarching educational reform goals. Continuous evaluation and feedback mechanisms ensure ongoing refinement, fostering a culture of continuous improvement. By prioritising these strategies, educational systems can cultivate a robust middle-tier capable of driving impactful TPD and fostering systemic transformation. Additionally, it is also important to focus on nurturing the capacity of school leaders to navigate the complexity of leading

TPD initiatives for educational reform within their contexts (Pont et al., 2008; Aldridge and McLure, 2023).

In sum, the SET model advocates for adaptive and collaborative TPD strategies to address the dynamic nature of educational environments. It encourages flexibility and adaptability in programme design and implementation to accommodate diverse needs and contexts while fostering collaborative learning communities among educators. However, successful implementation of such strategies relies on a thorough assessment of the current capacity of schools as illustrated in section 9.3.2.1. This assessment ensures that TPD initiatives are tailored to address specific needs and challenges within each school setting.

9.4 Section 3: Comparing frameworks: insights into teacher professional development for educational reform

This section compares the review of literature-based TPD model discussed in Chapter 2 (Section 2.5) and the SET model (Figure 9.4) based on this study's data and proposed in this chapter. While both frameworks share common principles and goals concerning the nature and implementation of TPD, they exhibit some key differences (Table 9.2).

Table 9.2: Similarities and differences of the literature-based and SET TPD model

Similarities	Differences	
	Literature-based model	SET model
• Highlight the interconnectedness of all dimensions within a school-based TPD system • acknowledge the influence of various internal & external factors • put emphasis on continuous learning - ongoing and embedded in their daily practice • highlight the need to tailor TPD initiatives to diverse contexts and needs • emphasise reflective practices • highlight the pivotal role of school leaders and collaborative structures	• describes each element—processes, factors, and external environments—but fails to explicitly show their synergistic interplay for effective TPD. • Unclear depiction of tailoring TPD initiative and the process of doing so	• adopts systemic thinking to highlight the support structure and the synergy of a whole system for effective TPD • focuses on building the collective capacity of school leaders and teachers • highlights adaptive strategies and steps to implement using capacity assessment tool

Similarities between the two models

The SET model (Figure 9.4) aligns closely with the literature-based TPD framework, particularly in its emphasis on the interconnectedness of all dimensions within a school-based TPD system. Both acknowledge that TPD operates within a dynamic system influenced by various internal and external factors. The literature-based model (Figure 2.4 in Chapter 2) delineates stages of school-based TPD, individual teacher factors, contextual factors, leadership, culture, and external enablers, illustrating how these elements interact and influence one another. For example, it highlights how leadership and culture within a school impact the effectiveness of TPD initiatives and how external support and guidance can align with ongoing educational reforms.

Recognising the interplay among these dimensions, the SET model advocates a holistic approach to TPD that considers the complex dynamics of the educational environment. This interconnectedness emphasises the importance of addressing multiple factors simultaneously to create a supportive and conducive context for TPD and reform implementation in schools.

In addition, both frameworks emphasise the importance of continuous learning, recognising that TPD should be ongoing and embedded within educators' daily practices – indeed, a professional commitment. They also stress the significance of tailoring TPD initiatives to the unique contexts and needs of individual schools and teachers, emphasising reflective practice and the role of leadership and collaboration in driving effective TPD. As exemplified in the previous section, each case school could be supported in different way and to varying degrees.

The most obvious example is the need for more structured TPD process to build collective capacity for reform implementation in school B to support the establishment of a positive learning culture. While this type of support may also be beneficial for the other three schools, the emphasis on cultivating a learning culture varies depending on the strength of the principals.

Differences between the two models

However, the frameworks differ in their structural presentation, focus areas, and depth of detail. While the literature-based model provides a more detailed breakdown of the process and considerations at each level, focusing on the stages of school-based TPD, individual teacher factors, contextual factors, leadership, culture, and external enablers, the SET model prioritises systemic support structures, adaptive approaches, feedback and evaluation, and empowering internal catalysts, emphasising the integration of effective TPD initiatives into the broader educational ecosystem. The key distinction lies in the empowerment of internal catalysts as internal reform agents within the SET model. This emphasis allows for greater flexibility in the implementation strategies of TPD initiatives, enabling them to integrate effectively into the broader educational ecosystem while being responsive to contextual needs.

The incorporation of systemic thinking into the SET framework addresses a critical gap identified in global discussions on effective TPD and further insights into navigating the complexity of educational system reform (Hallinger and Lee, 2011; Hudson et al., 2019; McLure and Aldridge, 2023). While consensus exists on the importance of systemic improvements within educational environments (King et al., 2023), empirical evidence is limited, and the literature often lacks specificity in explaining how these improvements can be achieved. By

integrating systemic thinking into the TPD framework, this study responds to the need for more concrete strategies that consider the evolving nature of educational systems and the complexities faced by school leaders and teachers.

The SET model provides a roadmap for designing, implementing, and evaluating effective TPD initiatives aligned with overarching educational reform objectives. This framework offers a robust and adaptable approach to TPD that is capable of guiding policymakers, educational leaders, and practitioners in developing strategies to enhance the collective capacity of school leaders and teachers. By acknowledging the dynamic nature of educational systems, it emphasises the need for collaborative, continuous improvement efforts to address the multifaceted challenges faced by educators in diverse settings.

In summary, while both frameworks share similarities, the SET model extends our understanding by providing a more structured, actionable, and systemic approach to TPD. It offers practical guidance and strategies for navigating the complexities of TPD planning, delivery, and outcomes, ultimately leading to more effective and impactful TPD initiatives.

9.5 Conclusion

This chapter has presented a discussion of findings across the four cases to address the main RQs and SRQs by providing a comprehensive analysis of how TPD initiatives have the potential to enable school leaders and teachers to implement policy reforms in their schools, offering insights, strategies, and recommendations for effective implementation within diverse educational contexts.

In conclusion, the TPD experiences of the four case schools illuminate the complexities of implementing educational reforms within diverse school contexts, aligning with the principles of CAST, whereby teachers' and school leaders' possess agency to a greater or lesser degree to adapt and flexibly respond to central government whole-school reform initiatives. These findings highlight the potential role of TPD and elucidate key considerations necessary to support and facilitate the process of converting learning from TPD into practice, thereby enhancing both schools' and teachers' capacities to meet reform imperatives and improve their professional practice. Moreover, the development of a forward-thinking TPD framework within Sabah's educational reform context offers practical guidance for enhancing teaching quality and student outcomes, extending current knowledge in the field.

The final chapter that follows highlights the study's original contribution to the existing empirical and theoretical knowledge, and addresses the main RQs and SRQs explicitly. It also presents the implications and recommendations that may inform practice and future research.

Chapter 10: Conclusion

10.1 Introduction

This research set out to investigate education reform implementation in four Sabah secondary schools, focusing on TPD processes and the accompanying leadership training for school leadership team. Studies conducted on major system reforms, both locally and globally, unveil a spectrum of challenges and inconsistencies, reflecting the diverse contexts within which educational reforms are implemented. History reveals that schools consistently find it difficult – even impossible – to fully implement system reforms. There is also evidence that PD – of both teachers and school leaders - contributes to schools' lack of capacity to implement system reforms. Malaysia and specifically Sabah – are no exception. The research problem presented in this thesis focuses on the phenomenon of inadequate school response to system reform and the problematic nature of professional development in this process. The complexity of the relationship between system reform and school response through PD as one of the main levers of implementation, is reflected in the struggles observed in the implementation of the Malaysian Education Blueprint (MEB) 2013-2025, as evidenced by the challenges and unsuccessful goal achievement documented in studies, policy reviews and international assessment reports (Bush et al., 2019; Bajunid, 2019; Tee, 2022; Scheichler 2023).

Recognising Sabah's lower academic performance compared to other Malaysian regions, the researcher, based in Sabah, identified the need to study this context. Despite numerous TPD opportunities, Sabah schools struggle to enhance student performance, indicating a disparity between policy goals and classroom results. This gap, evident in national examination results, coupled with Sabah's consistent low ranking in academic achievement among Malaysian states, points to potential inadequacies in TPD, which have not been directly addressed in the previous studies and reviews of the reform implementation. Considering the current challenges in Sabah schools, a thorough evaluation is necessary to determine a realistic, feasible, and desirable TPD strategy. Hence, this study aimed to:

- understand the perceptions and experiences of teachers and school leaders regarding their PD as a means of developing their knowledge, skills, and values in enabling implementation of education system reform in Sabah secondary schools, and

- identify key aspects and considerations that are essential in planning and designing an effective TPD model for Sabah teachers and school leadership teams that would build capacity and enable successful implementation of educational reforms.

This concluding chapter summarises the key findings and contributions of this thesis to understanding TPD for educational reforms in Sabah, Malaysia, while also discussing policy implications. Additionally, the chapter highlights the study's implications and recommendations for both practice and future research.

10.2 Key findings

The review of literature (Chapter 2) highlights the complexities and challenges inherent in TPD for educational reform, emphasising the need for context-sensitive strategies. TPD is plagued with conceptual ambiguity (Kennedy, 2014) and lacks sufficient robust empirical evidence to elucidate the processes that can foster teacher learning and bring about genuine and sustainable change in their teaching practices within the framework of educational reform (McLure and Aldridge, 2023). This study attempts to address this gap by focusing on the specific context of Sabah.

Overall, the study's methodology was appropriate in enabling its aims to be met. Through a qualitative multiple-case study approach within an interpretivist paradigm, the researcher was able to closely engage with participants, enabling her to contribute an 'etic' perspective while simultaneously gaining an 'emic' perspective from participants through observation in their school environments (Gall et al., 2003). By triangulating multiple sources of data, including semi-structured and focus group interviews, observations, and reviews of related documents, the researcher obtained a comprehensive understanding of TPD for educational reforms within the Sabah educational context. This understanding was evidenced by insights gleaned from a sample of school leaders and teachers

across four distinct contexts. Moreover, employing modified analytic induction (Bogdan and Biklen, 2007) and a step-by-step multiple-case study approach (Stake, 2006) facilitated the construction of the Sabah Emergent TPD (SET) model (Figure 9.4 in Chapter 9).

The following section explicitly addresses the main RQ and SRQs by summarising the main findings.

10.2.1 Main RQ: How, and to what extent, do TPD initiatives build capacity for Sabah teachers and school leadership teams to implement the Malaysian government's reform agenda in their schools?

This study reveals three key findings in response to the main RQ: inadequacy of current TPD initiatives; influence of various factors on TPD effectiveness; and lack of systemic thinking in educational reforms.

The findings from the four case studies reveal that current TPD initiatives in the selected Sabah schools are insufficient in empowering and building the capacity of school leaders and teachers. This inadequacy, reflecting the multidimensional and complex adaptive nature of TPD as discussed in Chapter 9, was influenced and filtered by various factors and conditions, including limited resources, unclear goals, and inconsistent support structures, ultimately hindering the potential impact of TPD efforts.

Furthermore, policymakers failed to adopt systemic thinking into the whole process of educational reforms by leveraging TPD, the need for which has been highlighted by scholars (Hudson et al., 2019; Hallinger and Lee, 2011). Additionally, there exists a lack of synergy between the wider educational ecosystem and the misconception of TPD as an event rather than an ongoing process as evidenced by the implementation of PLCs in the four case schools. These challenges emphasise the need for a more comprehensive approach to TPD implementation, considering the diverse needs and contexts of Sabah schools.

Specifically, this study expands the current understanding of TPD for leveraging educational reform in Sabah by addressing four SRQs detailed below.

10.2.2 SRQ1: How do Sabah teachers and school leaders interpret their TPD experiences in order to implement the (Malaysian government's) reform agenda in their schools?

The findings indicate that participants perceived their TPD experiences as problematic and insufficient to enable them to fully utilise the learning they gained through those exposures. Furthermore, despite acknowledging the significance of the knowledge and skills gained, they found the practicality of the learning and its relevance highly dependent on their school contexts. Additionally, the findings reveal issues surrounding the planning, delivery, and implementation of TPD initiatives making the transition from knowledge to application challenging (see Figure 9.1 in Chapter 9). This scenario also resulted in varying degree of reform implementation in each of the case studies.

As discussed extensively in Chapter 9, despite problems with externally mandated TPD activities, including poor quality trainers and materials, and insufficient time and support, the participants showed high reliance on them for input on the latest curriculum features and examination strategies to better equip them to support and improve their students' academic performance. However, as these participants grappled with understanding concepts and addressing challenges to implement their learning within the constraints of their contexts, their TPD experiences were rendered less meaningful. Therefore, aligning external and internal TPD (Dimmock et al., 2021) to provide a continuous process of learning is seen as necessary so that teachers are constantly engaged in gaining knowledge and practising the skills they learnt to suit their contexts. This alignment would maximise the impact of TPD initiatives (Morris et al., 2003), particularly in making sense of knowledge and planning for local adaptation to ensure relevance and practicality.

10.2.3 SRQ2: What factors, from the perspective of Sabah teachers and school leaders, affect their capacity to implement TPD initiatives in schools?

The study illuminates the intricate dynamics of education systems and their capacity to evolve in response to challenges, drawing insights from complex adaptive system theory. It emphasises the importance of considering various factors such as the context, culture, actors, structures, and infrastructures in

policy implementation to effectively address the complexities of educational reforms as well as highlighting the pivotal role of the SLTs in fostering teacher growth and driving systemic change.

Chapter 9 highlights the influence of personal and organisational factors, along with the quality of support and synergy among stakeholders within the broader educational ecosystem, on the process of translating knowledge into action (refer to Figure 9.2 in Chapter 9). These factors act as filters to the implementation process and their capacity to act on their learning (McChesney and Aldridge, 2021). Furthermore, the interplay between schools' agency and external stakeholders represents the complex adaptive nature of the major educational reforms and TPD process. Through empirical investigation, this study uncovers the multifaceted dynamics shaping educational reforms and illuminates the critical role of adaptive and collaborative TPD within a broader educational ecosystem in driving meaningful change.

While much attention has been given to the role of school leadership in driving school improvement and reform initiatives, there is limited focus on the role of school leaders in cultivating teacher learning through tailored TPD and the processes required to achieve it. By shedding light on the dynamics of TPD implementation, this study emphasises the role of school leadership in facilitating TPD initiatives within school settings, and the significance of the external support structure to consolidate the TPD learning experience. Hence, leadership preparation and training for leaders - both external and internal to the school - on leading and managing TPD have shown to be essential in navigating the diverse factors influencing TPD outcomes.

10.2.4 SRQ3: Taking into account the views of teachers and school leaders, what would constitute an effective TPD programme that might enable the successful implementation of the Malaysian government's reform agenda in Sabah secondary schools?

Based on the findings, participants expressed a strong preference for active learning methods that enable them to implement concepts disseminated through TPD within their own contexts. Merely receiving inputs and discussing successes in other contexts is deemed insufficient. Participants emphasised the need for

practical insights on how to adapt TPD content to suit the unique needs of their schools and students. Additionally, they indicated a preference for collaborative learning environments where they can interact with peers both within and outside their schools (Morris et al., 2003; Fullan 2016). Observations from the study highlight the preference for communities of practice where teachers can - in a continuous way – learn essential new skills and practices in line with reforms, and share experiences, provide mutual motivation, and offer support to each other. Particularly, collaborative TPD initiatives with a focus on problem-solving and enhancing student outcomes for examinations were favoured among participants. However, this study has shown that the participants did not give enough emphasis to the need for TPD linked to the development of transversal (holistic skills) – which are enshrined in the 2013 Malaysian government reforms.

These insights suggest that an effective TPD programme should prioritise active, contextually relevant learning experiences that foster collaboration, problem-solving, and continuous improvement in teaching practices as well as the need to improve student examination scores. While there exists a mandate for PLCs to serve as the backbone of school-based and district-led TPD and fostering active and collaborative learning, challenges related to misconceptions and a lack of ownership hindered their effective implementation. To improve the efficacy of school-based and district-led TPD initiatives, capacity building for middle-tier management and SLTs would help address misconceptions while fostering teacher ownership and collaboration within PLCs.

10.2.5 SRQ4: What policy and other contextual conditions would be necessary to support such an effective TPD system?

To support an effective TPD system, as evidenced by the findings and considering the principles of CAST, several policy and contextual conditions are essential. Firstly, there needs to be a clear policy framework at the governmental level that recognises the importance of ongoing PD for all levels of management. This framework should mandate dedicated time and resources for activities that nurture the capacity of various stakeholders and ensure alignment with broader educational goals. This initiative should prioritise leadership training for state and district personnel to effectively support TPD and empower school leaders in leading and managing school-based TPD through relevant PD programmes.

Additionally, as discussed in Chapter 9, there should be flexibility within the policy to accommodate the diverse contexts and needs of schools, allowing for tailored approaches to TPD implementation. Adequate funding and support mechanisms must be established to enable access to high-quality training programmes and resources. These initiatives should recognise the dynamic and interconnected nature of educational systems, ensuring that training programmes are adaptable and responsive to the diverse needs of schools for maximum effectiveness.

Furthermore, establishing networks for collaboration and knowledge sharing between and within schools can enrich the TPD experience and promote informed practice thereby developing agency in schools, as recognised by CAST. Lastly, fostering a culture of continuous improvement and innovation within the education system is crucial, encouraging school leaders to embrace and lead the reform efforts by enhancing their teachers' capacity to implement their TPD learnings effectively in their respective contexts. Overall, a combination of supportive policies, adequate resources, flexibility, collaboration, and a culture of learning is necessary to underpin an effective TPD system.

10.3 Contribution to knowledge

This thesis, it is claimed, makes a meaningful contribution to the literature on PD in Sabah, Malaysia, and globally by providing robust empirical insights on TPD in the context of system educational reforms. The following provides an explanation for each contribution.

Firstly, this thesis provides a framework for future conversations, research and scholarship on TPD in the context of educational reforms, with particular reference to Sabah. Such research on TPD in Sabah and Malaysia in general, remains scarce, particularly within the context of government-initiated systemwide educational reforms. Additionally, this study gives voice to Sabah school leaders and teachers in discussing their PD needs and perspectives. This thesis makes a seminal contribution to understanding the current state of TPD in Sabah, and lays the groundwork for future developments in research, policy and practice in the Sabah and Malaysian context. Understanding these dynamics – that is, the perceived inadequacies and needs of school personnel to enable

their implementation of systemic reforms, such as improved teaching and student assessment, is crucial, as it enables educational reform agents in Sabah's schools to receive targeted support, facilitating the effective implementation of policies across diverse educational settings.

Secondly, central to the thesis is the notion of tailoring capacity building efforts and policy initiatives to fit specific contexts, which is a further significant contribution to Malaysia's educational landscape. A key argument of the thesis is its advocacy for a context-sensitive approach to policymaking and professional development that begins with insights gleaned from Sabah's school leaders and teachers. By prioritising their perspectives, this study emphasises the necessity for policies to be responsive to the unique challenges and requirements of diverse educational environments. Emphasising a systemic approach to policymaking is key, as it fosters collaborative synergy among stakeholders, ensuring policies are implemented optimally. Having said that, policymakers need to look into the capacity building effort and support required by all stakeholders, including state and district education personnel, and most importantly relevant PD for school leaders to build their capacities to lead and manage TPD in their own schools.

Thirdly, this thesis contributes significantly to the global discourse on TPD within educational reforms by providing robust empirical evidence from a south-east Asian perspective. It thus supplements albeit in a small way, the burgeoning literature on TPD in Anglo-American contexts by adding an Asian example. This research contributes to filling a critical gap by offering detailed empirical insights based on case studies of Sabah schools. These insights illuminate the complex and adaptive nature of TPD processes, thereby enhancing our understanding of the intricacies and interrelationships involved in implementing educational reforms through TPD initiatives in diverse cultural contexts.

This study represents original empirical research on TPD in Sabah, a Malaysian state in S.E. Asia. While considerable attention has been devoted to the complexities and challenges of first, TPD, and second, whole system educational reforms, empirical studies that investigate the interconnection between these two dimensions, especially in a S.E. Asian context, remain scarce. Existing

literature emphasises the importance of context-sensitive TPD initiatives and the need for a deeper understanding of leadership practices that drive school reforms. However, limited empirical evidence is available to illustrate how these principles are effectively put into practice. Furthermore, there is a notable gap in empirical research on the efficacy of TPD as a key lever of educational reforms, particularly in non-western contexts (McLure and Aldridge, 2023).

Additionally, TPD initiatives for educational reforms in Malaysia, specifically for Sabah (see Chapter 1 for the reasons for this choice), lack evaluation of their effectiveness, leaving uncertainties about the impact of TPD on school leaders and teachers (and vice versa) in cultivating their capacity to interpret and implement reform agendas in their schools.

This study contributes to the understanding of TPD processes and their impact on school reform efforts and instructional improvement in line with systemic educational reform in Malaysia, and in particular, Sabah. It offers valuable insights into the factors and other conditions shaping effective TPD, thereby enriching discussions on educational reform initiatives in Asia more generally.

10.4 Contribution to theory

This study not only uncovers reasons for lacklustre performance in the quality of teaching and PD in Sabah, but also identifies actionable improvement opportunities, enhancing the quality and impact of educational reforms through targeted TPD initiatives. It provides nuanced insights and evidence-based recommendations to strengthen TPD frameworks and processes, thereby contributing to the theoretical understanding and practical implementation of TPD for educational reform, particularly in Sabah, Malaysia, and beyond.

Chapter 9, section 9.3 introduces the proposed SET model (Figure 9.4) in response to the study's aim of identifying key aspects essential in planning an effective TPD model for Sabah teachers and SLTs. The SET model, grounded in systems thinking, emphasises the interdependence within the educational ecosystem, elucidating the transition from TPD to meaningful change in teaching practices. By addressing the dynamic needs of teachers and schools in

implementing educational reforms effectively, the SET model offers a valuable theoretical framework for planning and designing TPD initiatives.

Recognising the importance of external support structures, this model promotes the collective capacity of external middle-tier management (state and district-level personnel) and internal catalysts (reformist school leaders and teachers). Emphasising the collaborative nature of TPD for educational reform, the study highlights the necessity for synergy among policymakers, middle-tier management, school leaders, and teachers to ensure alignment with broader reform goals and sustainable improvements in teaching and learning outcomes. By nurturing a collaborative and dynamic approach to TPD and reform, the SET model enables stakeholders to navigate complex educational landscapes, respond to emerging issues, and drive sustainable improvements in teaching and learning outcomes. Through collective efforts, stakeholders can work together to create a more effective and sustainable TPD system that empowers school leaders and teachers, and thereby enriches student learning experiences.

This study contributes theoretically by employing CAST as a heuristic tool to elucidate the dynamic relationship between schools as agents and the governance of the Malaysian education system. Through this lens, the study reveals insights into how schools function within the broader educational landscape. The study concludes that CAST proves a useful analytical tool for understanding the complexities and interdependencies within educational systems, while also recognising the varying agentic nature of schools.

10.5 Implications

Understanding the extent to which TPD initiatives potentially and actually build capacity for Sabah teachers and school leaders to implement the Malaysian government's reform agenda can inspire positive and proactive actions. This empirical investigation led to the development of the proposed SET model for educational reforms, offering valuable insights for both practice, policymaking and theory.

10.5.1 Implications for practice

The study's findings offer three practical implications, indicating the necessity for focused interventions to tackle identified challenges and improve the efficacy of educational reforms in Sabah schools.

1. Focusing on nurturing the capacity of school leaders and teachers to engage in collaborative learning aligns with the literature on established principles of effective TPD. By prioritising the development of school leaders and teachers, organisations enhance their ability to implement reforms successfully. This approach recognises the pivotal role of SLTs in fostering a positive school culture conducive to ongoing professional growth and effective implementation of reform initiatives. PD programmes for SLTs should prioritise the enhancement of leadership skills, the cultivation of a positive school culture, and the promotion of effective collaboration among teachers. It is important to note that leadership development programmes should not solely target principals; rather, they should also include other SLT members such as senior assistants and middle leaders. Building the collective capacity of SLTs to enhance the instructional core of their organisations is vital for meaningful educational reforms.

2. The findings highlight the critical need to strengthen school-based, job-embedded TPD initiatives and address misconceptions and the lack of knowledge on the part of Sabah school leaders and teachers of integrating their learning into daily practice as in the case of AR and PLCs. Strengthening peer coaching and mentoring processes is essential for fostering positive collaborative learning communities. Transitioning AR to a collaborative approach addresses knowledge gaps, allowing teachers to co-construct meaning and deepen their understanding. Equipping school leaders with requisite knowledge and practices, including practising and promoting reflective strategies, is crucial to enable them to support both AR and PLC processes.

3. This study also highlights the potentially key supportive roles of state and district staff who themselves need to be au fait with the Malaysia government's reform agenda and the necessary knowledge and skill needed

at school level by leaders and teachers in order to meet the educational reform goals. In addition, state and district staff need to develop capacity to proactively work with school leaders to establish and embed in schools the necessary infrastructure and processes (including PLCs, collaborative AR and lesson study) for effective TPD.

10.5.2 Implications for policymaking

The SET model of TPD for educational reforms emphasises the synergy between external and internal reform agents, emphasising the dynamic nature of TPD and reform process. To achieve this synergistic relationship, the model recognises the interconnectedness of these agents in driving educational reform efforts and emphasises the importance of their collective efforts in achieving meaningful change through:

- collaboration and coordination between external stakeholders such as policymakers, district-level administrators, and educational consultants, and internal stakeholders including school leaders and teachers;

- ongoing dialogue, knowledge sharing, and collaborative decision-making among stakeholders to ensure alignment with broader reform goals and objectives;

- building capacity of various stakeholders to adapt to the evolving needs and challenges of the education system, emphasising flexibility, adaptability, and continuous improvement as core principles.

Going forward, this study suggests adaptive approaches to TPD to customise support for Sabah teachers and school leaders, considering their specific needs and contexts. Additionally, it proposes assessing the current capacity of schools based on criteria outlined in section 9.3.2.1 of Chapter 9 as an option to tailor support effectively. A further implication is promoting collaborative learning networks among schools where teachers and school leaders can share informed practices (Dimmock and Walker, 2000), exchange ideas, and support each other in implementing educational reforms effectively. Aligning external and internal TPD initiatives will likely enhance understanding and develop capacity to act on

their learning within their specific contexts (Morris et al., 2003; Dimmock et al., 2021).

To effectively foster adaptive and collaborative approaches, prioritising continuous capacity building for both external and internal leaders is imperative. This capacity building should encompass acquiring the necessary knowledge and skills to navigate the complexity of educational reforms across diverse contexts while nurturing a positive school culture conducive to learning and growth. Furthermore, establishing robust systems for monitoring and evaluating the effectiveness of TPD programmes is essential (Borg, 2018; Popova *et al.*, 2018; King et al., 2023), enabling ongoing feedback and improvement based on outcomes and participant input (Bush et al., 2019). This strategic focus on continuous improvement supports the development of long-term, sustainable implementation strategies, ensuring that reforms become ingrained in daily practices and contribute to the ongoing enhancement of educational outcomes.

10.5.3 Implications for theory

This study unveils two key implications for theory:

1. There is an urgency for advancing theoretical frameworks in TPD and leadership for TPD to support the implementation of systemic educational reforms. Current inadequacies in TPD initiatives and the crucial role of school leadership teams highlight the necessity for comprehensive frameworks that address the complex adaptive nature of TPD and educational reform, enabling educators to drive successful implementation across diverse contexts.

2. Despite advocacy for aligning external and internal TPD structures (Morris et al., 2003; Dimmock et al., 2021), empirical evidence of such alignment, especially in non-Western countries, remains scarce. Moreover, the process and factors influencing the success of such alignment efforts are not explored in depth. Further exploration into strategies to effectively conceptualise and implement alignment between both structures would significantly enrich the existing body of knowledge.

10.6 Recommendations and possible future directions

The main recommendations for future research relate to the possible trends needed in conducing further empirical studies to explain, confirm, extend and even challenge the findings of this study.

1. There is need for research to pilot test the proposed SET model – especially in applying it to diverse school settings. It is important to note that the proposed SET model is a work in progress, and given the limited scope of this study, it is recommended to expand the research to encompass other settings in Sabah and across other Malaysian states. This broader approach would enable further development of a comprehensive understanding of TPD initiatives and educational reform models and practices nationwide.

2. Additionally, this study's findings primarily centred on internal reform agents, consisting of a small number of school leaders and teachers within each case study. Moving forward, incorporating the perspectives of the entire school community would enhance the robustness of the findings.

3. Principals and senior school leaders need to be explicitly trained and developed in designing, implementing and sustaining effective continuous TPD for their teaching staff after taking into consideration the system reform agenda and their own school context and culture; they then need to assume more responsibility and be evaluated according to the degree to which they enable TPD and leadership development in their schools. Leadership PD should be more personalised and based on current individual strengths and capabilities, and school contexts.

4. District and state support staff should support and evaluate the principals and senior school staff for which they are responsible according to their organisation and provision of ongoing TPD according to the degree to which it supports school reform and improvement.

5. This study presents a snapshot of each school's journey within the realm of TPD for educational reforms. A longitudinal investigation could provide deeper insights into the dynamics and effects of TPD for educational reforms

over time. Moreover, this approach would provide a comprehensive framework for nurturing schools as PLCs and fostering collaborative AR among teacher groups. By evaluating their impact and influence over time, it can enhance school reform outcomes across diverse contexts and environments.

6. Furthermore, as TPD for educational reforms is not an isolated process, delving into the perspectives and experiences of external stakeholders will offer a systemic view. In doing so, a more comprehensive understanding of the dynamics and interdependencies within the educational ecosystem can be attained, fostering more effective and sustainable reform efforts.

7. An extension of point 4 is the desire for governance at all system levels, from national to district, to fully appreciate the potential of TPD to be a major influence in enabling schools to successfully and effectively implement policy reforms. Most governments, including Malaysia's, still tend not only to underresource TPD (e.g. in contrast to business corporations who invest a much higher percentage of their income in developing staff in new skills), but in so doing, fail to realise the potential lever it is for enabling school reform and improvement.

10.7 Conclusion

In conclusion, the study contributes to the ongoing discourse surrounding TPD for educational reforms, particularly in non-western contexts. Through an exploration of the complexities inherent in TPD initiatives, the research sheds light on the intricate interplay between various stakeholders, policies, and practices driving educational change. It emphasises the critical role of systemic thinking in designing and implementing TPD programmes, emphasising the interconnectedness of factors influencing their efficacy.

By adopting a systemic perspective, the study provides valuable insights into tailoring TPD to address specific needs and contexts, thus enriching both empirical and theoretical understanding of the subject matter. Furthermore, it emphasises the importance of holistic approaches that take into account the broader educational ecosystem, with a particular focus on nurturing the

capacity of school leaders and teachers to interpret and implement educational reforms, some of which may present difficult choices for teachers and school personnel.

Looking forward, the findings call for continued research and action to translate these insights into impactful reforms that resonate with the diverse needs of educational contexts. Achieving synergy within the wider educational ecosystem that results in the empowerment of internal reform agents—school leaders and teachers—is paramount amidst the evolving educational landscape. It remains essential to foster inclusive, dynamic, and sustainable approaches to TPD, thereby enriching learning experiences for school leaders and teachers, and ultimately, students.

10.8 Personal and professional reflection

Through the course of this study, I have had the opportunity to reassess my previous role as a school improvement specialist coach plus (SISC+) from a more analytical and informed perspective. It has allowed me to step back from the daily operational tasks associated with the TPD system and to scrutinise them through the lens of school leaders, teachers and researchers, while also considering the complex adaptive nature of schools and TPD for systemic educational reform.

Initially, my perception of TPD was somewhat compartmentalised, focusing predominantly on teachers as learners - somewhat detached from other stakeholders. However, this investigation has broadened my perspective, shifting from a narrow focus on understanding why teachers may exhibit disinterest in professional learning, to a comprehensive examination of the myriad factors and conditions that influence their motivation and capacity to engage in TPD. Embarking on this study, I became aware of my previous assumptions and was able to demystify them through the literature review, data analysis and discussion of the findings. For example, I initially presumed that school leaders lacked the capacity to lead and manage school-based TPD and thus required training in that regard. However, the research findings have illuminated a more nuanced perspective: school leaders, particularly principals, exert distinct strengths and agency in fostering school-based TPD efforts. Consequently, their

training and capacity enhancement should be personalised to leverage their strengths and address areas for improvement effectively.

Moreover, this journey has afforded me the insight to contextualise TPD within the broader landscape of educational system reform, enabling a deeper comprehension of its multifaceted significance. This evolution has not only enhanced my understanding but has also facilitated an original contribution to the conceptualisation of a context-sensitive TPD model. The model will serve as a strong basis for my role as a coach and mentor, post-PhD. It equips me with the tools to navigate the intricate nuances of TPD implementation and to make meaningful contributions to ongoing dialogues surrounding educational reform and TPD for educational reforms.

Lastly, the study prompted me to move beyond complacency and passive acceptance of the status quo. Rather than solely focusing on the challenges, it encouraged me to explore practical considerations and solution

Appendices

Appendix A: 11 Shifts of the Malaysian Education Blueprint

SHIFTS

PROVIDE EQUAL ACCESS TO QUALITY EDUCATION OF AN INTER-NATIONAL STANDARD

- Benchmark the learning of languages, Mathematics and Science to international standards
- Launch new Secondary (KSSM) and revised Primary Curriculum (KSSR) in 2017
- Revamp examinations and assessments to increase focus on testing higher-order thinking skills by 2016
- Raise quality of preschools and push to 100% enrolment by 2020
- Move from 6 to 11 years of compulsory schooling, starting at age 6+; supported by retention initiatives and job-ready vocational training
- Increase investment in physical and teaching resources for students with specific needs

ENSURE EVERY CHILD IS PROFICIENT IN BAHASA MALAYSIA AND ENGLISH LANGUAGE

- Introduce a common Bahasa Malaysia curriculum at the primary level, with earlier intensive remedial support for students that struggle to allow for removal of *peralihan* class
- Expand the LINUS programme to include English language literacy
- Upskill English language teachers and expand opportunities for greater exposure to English language
- Encourage every child to learn an additional language by 2025

DEVELOP VALUES-DRIVEN MALAYSIANS

- Strengthen civics elements by making community service a pre-requisite to graduation by 2017
- Enhance Islamic and Moral Education with greater focus on core values and underlying philosophies of major religions by 2017
- Develop students holistically by reinforcing requirement to participate in 1 Sport, 1 Club and 1 Uniformed Body
- Enhance and expand RIMUP from 2016 to facilitate interaction across school types, ethnicities and socio-economic groups

TRANSFORM TEACHING INTO THE PROFESSION OF CHOICE

- Raise entry bar for teachers from 2013 to be amongst top 30% of graduates
- Upgrade the quality and personalisation of CPD from 2013 with greater emphasis on school-based training
- Focus teachers on their core function of teaching from 2013 by reducing administration burdens
- Implement competency and performance-based career progression by 2016
- Enhance pathways for teachers into leadership, master teaching and subject specialist roles by 2016
- Peer-led culture of excellence and certification process by 2025

ENSURE HIGH-PERFORMING SCHOOL LEADERS IN EVERY SCHOOL

- Competency-based selection criteria and enhanced succession planning processes for principals from 2013
- New Principal Career Package rolled-out in waves from 2013, with greater support (for example via coaches, on-boarding programmes), greater operational flexibility for school improvement, curriculum and co-curricular planning, and sharper accountability for improving student outcomes

EMPOWER JPNs, PPDs, AND SCHOOLS TO CUSTOMISE SOLUTIONS BASED ON NEED

- Accelerate school improvement through systematic, district-led programmes in all states by 2014
- Allow greater school-based management and autonomy, including greater operational flexibility over budget allocation and curriculum implementation, starting with the best performing and most improved schools
- Ensure 100% of schools meet basic infrastructure requirements by 2015, starting with Sabah and Sarawak

LEVERAGE ICT TO SCALE UP QUALITY LEARNING ACROSS MALAYSIA

- Provide internet access and virtual learning environment via 1BestariNet for all 10,000 schools by 2013
- Augment online best practices content starting with a video library of best teachers delivering lessons in critical subjects in 2013
- Maximise use of ICT for distance and self-paced learning to expand capacity and allow for more customised learning

TRANSFORM MINISTRY DELIVERY CAPABILITIES AND CAPACITY

- Empower JPNs and PPDs through greater decision making power over budget and personnel while also holding them accountable for common KPIs from 2013
- Deploy almost 2,500 more personnel from Head Office and JPNs to PPDs to better support schools by 2014
- Strengthen leadership capabilities in pivotal 150-200 leadership roles from 2013
- Strengthen key central functions and rationalise structure of Ministry from 2016

PARTNER WITH PARENTS, COMMUNITY, AND PRIVATE SECTOR AT SCALE

- Equip every parent to support their child's learning via a parent engagement toolkit and online access to their child's in-school progress (SAPS system)
- Invite every PIBG to provide input on contextualisation of curriculum and teacher quality from 2016
- Expand Trust School model to 500 schools by 2025 by including alumni groups and NGOs as potential sponsors

MAXIMISE STUDENT OUTCOMES FOR EVERY RINGGIT

- Link every programme to clear student outcomes and annually rationalise programmes that have low impact; align to government's overall shift towards outcome-based budgeting
- Capture efficiency opportunities, with funding reallocated to the most critical areas such as teacher training and upskilling

INCREASE TRANS-PARENCY FOR DIRECT PUBLIC ACCOUNT-ABILITY

- Publish an annual public report on progress against Blueprint targets and initiatives, starting for the year 2013
- Conduct comprehensive stock-takes in 2015, 2020 and 2025 to ensure Blueprint remains relevant by incorporating stakeholder feedback and accounting for an ever evolving external environment

Source: MOE, 2013, pp. E-19 - E-20

Appendix B: The Malaysian Education Blueprint

Source: www.padu.edu.my

Appendix C: Shift 6 – District Transformation Programme

Shift 6: Empower JPNs, PPDs, and schools to customise solutions based on need

Why is it needed?: Both national and international data suggest that Malaysian schools are spread across a wide performance spectrum. For example, in the 2009+ PISA, 7% of participating schools were graded as Good, 13% as Fair, and 80% as Poor.

Historically, many programmes have been designed according to a "one-size-fits-all" model. International evidence suggests that different sets of interventions are required in order to best serve schools at different performance levels.

What will success look like?: Every school, regardless of location, size, or type, will provide its students with a good, holistic education. This not only means that there will be no underperforming (Bands 6 or 7) schools in the country by 2020, but also that more schools will be recognised as high performing or cluster schools based on their performance. The amount of financial and operational support provided to each school will depend on its specific needs. State, district and school leaders will also have greater decision making power over day-to-day operations to tailor interventions based on the school's context and enable greater school-based management.

Accelerate school improvement through systematic, district-led programmes rolled out across all states by 2014. Building off the success of the GTP 1.0 School Improvement Programme, every District Education Office or *Pejabat Pelajaran Daerah* (PPD) will be empowered to tailor the support provided to schools on dimensions from student attendance through to principal and teacher deployment. Resources can then be directed to where they are most needed. This includes employing full-time teacher and principal coaches to support principals and teachers in lower-performing schools (Bands 5, 6 and 7). At the same time, the Ministry will ensure that all schools and districts remain aligned to the Ministry's strategic priorities through the roll-out of a common set of Key Performance Indicators (KPIs). This programme will be piloted in Kedah and Sabah from January 2013, with implementation in all districts by 2014.

Allow greater school-based management and autonomy for schools that meet a minimum performance criteria. In the future, all schools will be responsible for operational decision making in terms of budget allocation and curriculum implementation. For example, principals will have full authority over how they spend the per capita grant (PCG) and on how they design the school timetable. However, this process will occur in waves, starting with High Performing and Cluster Schools (in recognition of their academic and non-academic achievements), and Trust Schools (in recognition of their innovative public-private partnership delivery model). Over time, more and more schools will be granted these decision rights based on their performance. This increased emphasis on school-based management will also be accompanied by sharper accountability on the part of school principals.

Ensure 100% of schools meet basic infrastructure requirements by 2015, starting with Sabah and Sarawak. Every school in Malaysia, regardless of location, size, or type, will meet a set of minimum infrastructure requirements to create a safe, hygienic, and conducive environment for learning. This includes access to clean, treated water; at least 12-hours of electricity per day, along with sufficient toilets, classrooms, tables, and chairs for the student and teacher population. This process will start with the upgrading of all schools to fulfil basic infrastructure standards by 2015, starting with Sabah and Sarawak as they currently face the greatest infrastructure challenges. Once all schools have met basic infrastructure standards, the Ministry will proceed to invest in another wave of upgrades to meet baseline requirements for delivering the curriculum effectively such as Science laboratories and Living Skills workshops.

Ensure all government and government-aided schools receive equitable financial support. The Ministry will develop and implement a transparent and equitable set of principles for the allocation of financial and other support to all school types. These principles will be in line with the system aspirations of access, quality, equity, unity, and efficiency. For example, the Ministry recognises that some schools face more challenges than others due to their higher proportion of low-income students or students with specific needs. In the interest of equity, these schools will require additional funding so that they can deploy extra support services for their students.

Source: MOE, 2013, pp. E-25 - E-26

Appendix D: Individual interview Guide

Interview Guide for Senior Leadership Team

A.	Introduction & Warm-Up - Greetings, build rapport - Statement of purpose of the interview - Guidelines to follow during the interview - Assurance of anonymity of information	
B.	Questions	
Theme 1: Personal experiences with professional development		
1.	What does 'Professional Development' (PD) mean to you? Anticipated probes/ prompts: • Purpose • Learning goals	RQ1
2.	What, if any, are the PD opportunities that you have participated in: - pre-pandemic - during pandemic and - post-pandemic? Anticipated probes / prompts: • Aim or purpose • knowledge, skills and values • organisers, venues and duration • Trainers and mode of delivery • Compulsory or voluntary • Quality, practicality and ease of implementation in relation to their work	RQ1, SRQ1 & SRQ2
3.	Thinking about your own PD experiences, to what extent did you feel you were supported in your learning - during the PD sessions - and afterwards? Anticipated probes / prompts: • Acquiring / understanding the knowledge and skills during PD • Application of the knowledge and skills during implementation at schools • In terms of resources, guidelines, implementation support	RQ1, SRQ2
Theme 2: Experiences in leading and managing TPD in schools		
4.	What are your views about Teacher Professional Development? Anticipated Probes/ Prompts: • Purpose • Who is responsible for TPD in schools? • Leaders' roles	

4.	Have you participated in any PD activities related to how you can plan, implement, monitor and evaluate TPD activities for your teachers?	RQ1, SRQ1 & SRQ2
	Anticipated Probes / Prompts:	
	If so, what are your views about the quality of the PD you experienced? • What did you learn from the experience? • How did it help you in TPD management? • Do you think that your knowledge and skills in relation to TPD management are developed as a result of the PD that you have experienced? If so, how and in what ways?	
	If no, what if any, learning activities have you undertaken to help plan for TPD in your schools? • How easy or challenging was it? • (If there are challenges) What have you done to address some aspects of the challenges?	
5.	Are there occasions when you have applied strategies or techniques acquired from PD activities into your own school's TPD management?	RQ1, SRQ1
	If so, could you tell me more about your experiences in implementing such strategies and techniques with your teachers' PD?	
	OR	
	If not, what else is needed?	
	Anticipated Probes /Prompts: • How easy or challenging was it? (Challenges – What you have done to address some aspects of the challenges?) • How did it help your teachers? • What did you learn from the experience? • What else do you need (examples) to be able to apply the strategies and techniques in your own TPD management?	
5.	What are your views about the relationship of externally and internally provided PD programmes?	RQ2, SRQ3
6.	What conditions would support a more integrated external-internal PD approach - given your classroom and school context?	RQ2, SRQ4
Theme 3: Perspectives & Visions for Future PD		
7.	Looking ahead, what kind of PD that you would like to participate in? Anticipated Probes / Prompts: • Features	RQ2, SRQ1

	• Structures • Process	
8.	What do you think are some of the factors that influence the success of a PD experience? Anticipated Probes /Prompts: • Resources • Contexts • Culture	RQ2, SRQ2

C.	Wrap-Up & Closing Statements
	  - Summarise key points & member check
	  - Answer any remaining questions (if any)
	  - Ensure anonymity of information
	  - Express thanks	

Appendix E: Focus group interview guide

FOCUS GROUP INTERVIEW GUIDE

1. **Talk about your professional development experiences.**

   Anticipated probing questions:
   a. Have you participated in any PD activity during the course of your career/ in the past 10 years, excluding the present?
   b. What, if any, are the PD opportunities that you are currently involved in?

   More probing questions:
   - What was the aim or purpose of each?
   - What knowledge, skills and values were involved?
   - Who organised them?
   - Where were they conducted?
   - What were the mode of delivery?
   - Who were the trainers?
   - Were they compulsory to attend or did you have to apply to attend them?
   - If voluntary, what motivates you to apply or attend them?
   - Provide an example of an activity or technique that you have found useful in any of the PD that you experienced.

2. **Talk about the impact of PD experiences on your practice.**

   a. Are there occasions when you have transferred strategies or techniques acquired from PD activities into your own classroom practice?

   b. If so, could you tell me more about your experiences in implementing such strategies and techniques with your own students in class?

      More probing questions:
      - How easy or challenging was it?
      - How did it help your students?
      - What did you learn from the experience?

3. **Talk about the quality of PD that you have experienced.**

   a. Assuming that you have been recently, or are currently, involved in PD activities, what are your views about the quality of the PD you experienced?

      More probing questions:
      - Was it effective in enabling you to learn appropriate skills, values or knowledge?
      - Do you see any merits and/or demerits in the content and methods by which the PD was delivered?

- Do you feel the format and mode of delivery was appropriate to achieve the aims of the PD)?

4. **Talk about the support you have in learning.**

    a. Thinking about your recent or current PD experiences, to what extent did you feel you were supported in your learning goals a) during the PD sessions, and b) afterwards?

       More probing questions:
       - To what extent do you feel your particular classroom and school contexts were taken into account – such as your location, school resources, and socio-cultural setting?
       - Was there any follow-up to evaluate the efficacy of the PD in terms of implementation in your classroom or school?

5. **Talk about your perspectives of a successful PD experience.**

    a. In your experience, what is the key to a successful PD experience?

Appendix F: Field notes example 1

Observational Protocol / Guide

Observation No: *Continued*
Date/Day: 10/8/2022
Start Time: End Time:
Place: School 13
Note:

Descriptive Notes	Reflective Notes
At about 10 am the electricity was shut down and they said it's a normal occurrences. It would probably be restored at 5pm. The principal was seen napping all he said due to the absence of electricity. Internet connectivity was out. When I was trying to find connection at the school area I saw they were having the launching of Mandela Day celebration. (at around 1-3 pm). After that I saw the students were going in and out of some classes, even with the teachers not sitting in the classes. Probably relief teachers. Students were quite free to move around and the whole school was a bit noisy. The principal was in the office chatting with the clerks.	Electricity problem

Affected mood, motivation. Feel sleepy. Can't join any meetings/course |

Appendix G: Field notes example 2

**Observational Protocol / Guide**

School B

Observation No: 1
Date/Day: 9/8/2022
Start Time: 10.00am   End Time:
Place: School B.
Note: Islamic Study teacher.

Descriptive Notes	Reflective Not
Had a chat with a teacher while waiting for his class to start. He's from the West ('Malaysia) and already in this school since 2013. He has no plan to move to the west yet as he finds it more fulfilling in this school. He gets more opportunities to develop himself. He said that in west M'sia opportunities are hard to get. Many teachers would 'berebut-rebut' while here, everyone seems to "mendiam-diam". He stated that the internet connection is not stable and digital learning or anything with the internet will be a challenge. He finds it unsuitable for most of his lessons. He also mentioned there is a ... for his subject ... the district to plan	Culture of There's no com among teachers opportunities /p. Compared to W there are very c and always g grab opportunit Internet conne is not stable. Challenging to d Digital learning to do with di. He does not find the strategies suitable for l

Appendix H: Data analysis 1

SCHOOL A
TRANSCRIPT LEADER 2

Interviewer	Pembangunan profesionalisme bagi puan. Apa yang puan err pengertian puan lah.	
Leader 2	Pembangunan professional yang untuk yang kemahiran kemahiran yang perlu ada pada ah ni ah guru-guru dan juga diri saya sendirilah. Err yang kerana memang banyak kita perlu sekarang ni kan banyak perubahan ahh dari segi Pendidikan akademik apa semua jadi kita perlu err latihan-latihan yang err perlu banyak Latihanlah untuk yang diberi kepada guru-guru yang sekarang ini. Sebab err akademik kita sekarang ni semakin meningkat Pendidikan kita pun semakin banyak perubahan dari segi tahun semasa jadi latihan-latihan professional untuk yang guru-guru tu pun err amat perlu.	latihan untuk kemahiran perlu mengikut perubahan semasa.
Interviewer	Bagi puan sendirikan apa matlamat err pembangunan profesionalisme puan	
Leader 2	Matlamat saya	
Interviewer	Ya ertinya apa keperluan puan untuk belajar mau tau lagi ka	
Leader 2	Kalau saya [chuckled] kalau saya ni kalau untuk menambah lagi ka apa ni ilmu untuk menambah lagi kemahiran-kemahiran yang ada pada saya mungkin untuk diri saya sendirilah dengan dengan saya terus teranglah dengan kekangan apa ni masa tugas dan apa sekarang ni rasanya [long pause] macamana saya mau jelaskan. [laugh] Err matlamat [long pause] dalam fikiran mau pencen awal saja bah ni. [laugh] tapi ok kalau dari segi apa ni err dari segi tugas lah kan jadi saya terangkan dari segi tugas saja ok dari segi tugas saya perlukan lagi err latihan dan juga apa ni err dari segi kerja..kerjaya daripada tugas pk itu sendiri ah jadi banyak yang perlu sebenarnya saya sekarang ni pun saya banyak mengkaji banyak bertanya dengan guru guru dengan pk pk yang lain lah untuk memantapkan lagi ah tugas saya di sini erm lepas tu eso peralihan tugas saya pun dari PPD ke sini memang yang ada agak berbeza sedikit. Yang di PPD dulu saya pengurusan yang pengurusan keseluruhan dan di sini lebih kepada sekolah. Jadi banyak perkara yang saya perlu pelajari untuk memantapkan kerjaya saya sebagai contohnya sebagai apa ni sebagai salah seorang pentadbir di sini.	mau pencen aw... → workload. dari segi tugas mahu mengutapka... kemahiran sebagai PK1. bertanya dgn guru, pk.
Interviewer	Jadi err pengalaman puan lah menghadiri pembangunan profesionalisme, yang diterimalah kan dari JPN, KPM atau dari di sekolah dari pengetua sendiri. Adakah dia memenuhi matlamat itu?	
Leader 2	Sedikit sebanyak memang banyak memenuhi sebab itu antara yang keperluan-keperluan yang saya perlu err macam err saya selalu juga berbincang dengan pengetua untuk err untuk ini kan pengetua pun tidak loke dengan ilmu dia sentiasa membantulah kalau misalnya ada yang saya tidak faham saya terus akan rujuk dengan tuan pengetualah tuan pengetua akan bimbing dan maklumkan apa yang perlu saya buat. Jadi memang saya banyak belajar dengan dia dan juga pihak PPD dan juga JPN banyak err membuat err ada ... Latihan-latihan untuk pembangunan pentadbiranlah juga.	memenuhi keperlu... tugas pentadbi... perbincangan dgn pengetua bimbingan pengetua. pihak PPD/J... buat latihan
Interviewer	Bagaimana dengan err sokongan sepanjang melaksanakan di sekolah ini. Ada sokongan berterusankah sistem tu sistem sokongan tu kuatkah untuk puan terus bermotivasi dan bila ada isu ada support system lah kan	
Leader 2	Ya. Err support system tu mesti memang ada jadi err kalau ada apa-apa hal yang err saya saya tidak keseoranganlah. Di sini saya tidak keseorangan. Kalau saya ada masalah err kami akan sentiasa berbincang. tuan pengetua sendiri memang memang jenis yang suka ambil tahu dan memang kami akan err macam tadi pagi pun memang kami ada isu saja ada masalah kami akan terus	tidak keseorang... sentiasa berbincang. tuan pengetua suka ambil t...

Appendix I: Data analysis 2

Appendix J: Sample transcript

Transcript P School C

Q: About Action Research

PC: So that our teachers can use different approach and methods to be applied in the class. Because the students will say sometimes they will say "oh aiya boring lah. Pelajaran ini boring betul." So I want the teacher to apply something new to our student. I even encouraged them go out from the classroom and then we have many learning stations here for them to do and sometimes you can see the students err sitting down along this foyer, the teacher is teaching, sometimes. So to do anything or to do any changes to the school, err the principal is or the head of the department is the most important person. Like this morninglah during assembly. Ok during assembly. We have this what we called NILAM reading session for the student and also the teachers. Okay. If we as a leader, err the principal in the school-lah, we don't do first, show the good example as a role model to the student and to our teachers, they won't do one. They won't do one. Pengetua hanya pandai cakap saja. Ah so that's why every time during assembly I will bring my books, ah bring my books all these books ah. Ahh Actually this all these, all the way I have also for used this book as the guideline ah for not only this lah. I already read few books err so, so that can get some knowledge how to lead the school.

Q: How do you see the value of Professional Development for yourself?

PC: Self development, professionalism development for me is actually is a main agenda for for a leader especially in the school because as what I said just now as you if you don't have to be equipped with all these all these kind of knowledge and also skills, soft skill especially soft skill or other things or like our school before we are actually emphasising on ICT, ICT because we are using Frog VLE during that time. And you know what happened this is a new thing during that time so the teacher they don't didn't want to follow. So what we want to do is as a principal we have to be equipped with all these skill and knowledge. So I learned first, I learned first. Err Frog V what is Frog VLE, how to handle, how to err use this err Frog VLE as a platform for our teachers and students' learning process in the classroom. So you learn first. Ah we learned all these, then we will give them this knowledge through the briefing session or any this ah what we called the talks to our teachers first and then during assembly time to our students. So we try to deliver all these the teacher will think that emm our principal is very knowledgeable then he since he knows already and err even the old person they are very my teachers they are all very young ah they are all very young even the old person err also can learn about the new things err the new technology ah now it's a google classroom lah. I also learned. We also learned about this. We we have to know first, before they know. So we lead them first, then later on they will lead the student. Ah so I will let it to them to handle. Ah that's the way lah. If we have done all these things, ok just now I'm talking about the ICT. We are applying the ICT technology. And then later on err these two years we are introducing err this err LCD projector, using the wireless LCD projector by handphone. Because before that I know some of the schools they are using you know they are using LED, they, every classroom especially the primary school they have this LED LED err display board to teach the student which are touchscreen. Yes the smartboard. But for

Appendix K: Journal

When I met the principal, he was discussing some preparations that need to be done as the next day the school will receive visitors in the morning and afternoon. They were quite occupied with the visits. During interview the principal was interrupted twice for the by PPD officer to discuss the preparation needed for the two events. In the principal desk table there were a few books. I found out that those books to are the Action research series conducted and published featuring teacher in the school, and also the principal's PhD. From the book of about the school I learnt that principal had presented his findings in an international conference.

Appendix L: Consent form

University
of Glasgow

College of Social
Sciences

Consent Form

Title of Project: Investigating Teacher Professional Development in Sabah: A Multiple-Case Study ir
Secondary Schools

Name of Researcher: Betty D Primus
Supervisors: Professor Clive Dimmock and Dr Dong Nguyen

Please tick as appropriate

Yes ☐ No ☐   I confirm that I have read and understood the Participant Information Sheet for
the above study and have had the opportunity to ask questions.

Yes ☐ No ☐   I understand that my participation is voluntary and that I am free to withdraw
at any time, without giving any reason.

Yes ☐ No ☐   I consent to interviews being audio-recorded

Yes ☐ No ☐   I acknowledge that copies of transcripts will be returned to participants for
verification.

Yes ☐ No ☐   I acknowledge that participants will be referred to by pseudonym.

I agree that:

Yes ☐ No ☐   All names and other material likely to identify individuals will be anonymised.

Yes ☐ No ☐   The material will be treated as confidential and kept in secure storage at all
times.

Yes ☐ No ☐   The material will be destroyed once the project is complete.

Yes ☐ No ☐   The material may be used in future publications, both print and online.

Yes ☐ No ☐   I waive my copyright to any data collected as part of this project.

Yes ☐ No ☐   I acknowledge the provision of a Privacy Notice in relation to this research
project.

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant .... Signature ....

Date ....

Name of Researcher ....Signature ....

Date ....

.... End of consent form ....

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