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Research Article

Exploration Of Barriers In Cultivating A Professional Learning Community Among Schools In Malaysia

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ABSTRACT

This exploratory study was conducted to identify the existing barriers as well as the main obstacles in fostering a high-impact professional learning community (PLC) culture based on teachers' perspectives. This study is part of a needs assessment related to best practices for District Education Office in cultivating high-impact PLCs among schools in Malaysia. A multiple case study method was used, in volving 40 teachers from Secondary and Primary Schools in Malaysia. Interviews were conducted to collect data, along with research instruments such as interview protocols, field notes, and research memos. The data was analyzed using Nvivo 12 plus software through thematic analysis and content analysis. The findings of this study reveal two themes of barriers, consisting of internal school barriers and external school barriers. Meanwhile, the most frequently mentioned sub-theme of barriers at the teacher level involves attitudinal barriers and cognitive sub-categories, namely the understanding of the actual PLC concept and how to implement PLCs. Time constraints emerged as the second barrier due to high workload burdens. These three barriers at the teacher level align with the most frequently recurring barriers at the school leader and district levels, namely the limited role in leading and managing PLCs in schools. The results of this study contribute to the understanding of the structured existence of barriers and suggest that policymakers enhance the capacity of school and district leaders so they can optimally play their role in improving teachers' capacity to foster PLCs in schools across Malaysia.

Keywords: Cultivating High Impact Professional Learning Communities (HPPLCs), Professional Learning Communities Barrier , Barrier in implementing PLC at school level.

1. INTRODUCTION

The education system in Malaysia has undertaken various initiatives to follow in the footsteps of developed countries in cultivating Professional Learning Communities (PLC) as one of the strategies to enhance the quality of teachers and schools. These initiatives are evidenced through various government documents since 2010. Among them are the Interim Strategic Plan (KPM 2010), Report on the Quality of Teaching and Learning in Malaysian Schools (KPM 2011), Malaysia Education Development Plan 2013-2025 (KPM, 2013), Leader and Teacher Development Plan (KPM 2014), District Transformational Programme 3.0 (BPSH 2017), Moving Forward: KPM Action Plan 2018 (Amin 2018), New KPM Narrative 2019 (2019), and School Transformation Module 25. These efforts continue at the state Education Department level, as stated in their respective management books by Hassan et al. (2018).

However, local studies by researchers Kin & Omar (2021) reported that the implementation of PLCs still does not show progress even after more than a decade. Meanwhile, the impact of PLC activities on student achievement, as reported in previous studies, is still not visible. Furthermore, the performance of Malaysian students in Trends in International Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA) 2022 shows scores that are lower than the average scores obtained by Organisation

for Economic Cooperation and Development (OECD) countries in mathematics, reading, and science. Only 41% of Malaysian students achieved at least Level 2 proficiency in mathematics, significantly lower than the OECD average (OECD average: 69%). These results indicate that the Ministry of Education's initiative to cultivate PLCs in schools faces obstacles that need to be explored.

Additionally, the difficulty in establishing a high-impact PLC culture has been reported in studies across various demographic settings. Some researchers, such as Barlow (2008), argue that these difficulties arise from various unaddressed obstacles. According to change experts in business like Kotter (1996) and Kotter & Schlesinger (2013), if these obstacles are not addressed, they will continue to hinder change efforts. Therefore, in the context of this study, existing barriers will continue to hinder efforts to institutionalize PLCs in schools. According to Fullan (2006), this not only slows down efforts to institutionalize PLCs but in more serious cases, the failure of PLC impact can be observed. Hence, this study is proposed to explore existing barriers to institutionalizing high-impact PLCs in schools from the perspectives of teachers. Furthermore, exploratory studies on local barriers at this level are still lacking, involving large-sized samples.. Such studies are important for understanding the barriers faced in their respective roles. Meanwhile, existing studies not only underutilize qualitative approaches, as reported by Anthony et al. (2021) and Mohd Aizat et al. (2020), but also involve small sample sizes in exploratory studies, as conducted by Yee Bee Choo (2019). The information from this study is expected to be used by policymakers to modify existing education policies, and also by other stakeholders responsible for schools to update current strategies to overcome obstacles in fostering highimpact Professional Learning Communities (PLCs) within schools. Therefore, this study is conducted to explore the barriers that exist in cultivating high-impact PLCs in schools in Malaysia. Furthermore, the primary barriers are also identified based on teachers' perceptions. There are two research questions for this study. First is What are the barriers that exist in schools in cultivating high-impact PLCs?. Second is What are the primary barriers that exist in schools in cultivating high-impact PLCs based on teachers' perceptions?

The barriers in cultivating Proffesional Learning community in schools

Studies related to barriers to successfully managing change have been widely reported for a long time by scholars from various fields. Among them are Sreejith (2012) and Wong, Low & Wong (2023) in the industrial sector, Kotter (1996) in the field of business management, McLaughlin et al. (2008), Sheppard & Dibbon (2011), and Sarason (1996) in the field of education. According to Kotter (1996), these barriers are often underestimated by organizations, which leads to them being poorly understood and addressed. Consequently, they continue to exist within the system (United Way of Calgary and Area, 2011; Murugi, 2013). In the field of education, Sarason (1996) found that one reason for the failure of school education reforms to achieve their set goals is the inability to understand barriers at the school level against each wave of reform that shows expected results. The failures of these efforts are seldom studied. Instead, proposals that failed in the past continue to be put forward (Sarason 1990).

The same situation applies to changing the work culture of teachers to a PLC culture. This issue has been extensively studied globally in various countries with diverse demographic characteristics over the past two decades. Among these studies are those conducted by Ahn (2017) from Korea, Intanam & Wongwanich (2014) from Thailand, Admiral (2019) from the Netherlands, Balyer et al. (2015), Bellibas et al. (2017), and Kalkan (2016) from Turkey, Bolam et al. (2005) from Australia, Doolittle et al. (2008) from New Jersey, USA, Kincaid (2014) from Washington, USA, Johnson (2016) from North America, Zhang & Pang (2016) from China, Louise Stoll et al. (2006) from Britain, Hairon et al. (2015) from Singapore, Osmond-Johnson et al. (2019) from Canada, and Tayaga (2020) from the Philippines. Therefore, according to Mohammad (2009), Walkme (n.d.), and McLaughlin et al. (2008), all these barriers need to be detailed to be understood before they can be successfully addressed.

Based on the analysis of past research reports, there is a noticeable difference in the pattern of PLC research at the global level from before the first decade until the first decade of the millennium compared to the second decade. Research related to barriers in the early part of the first decade was more inclined towards changing the silo work culture to a PLC work culture. Among the researchers who reported this are Capers (2004), Fullan (2001), and McLaughlin & Talbert (2001). However, studies on PLCs shifted towards examining effective PLCs, as conducted by Bolam et al. (2005). Moving into the second decade, the research pattern placed more emphasis on the barriers to transitioning from traditional PLCs to high-impact PLCs. This can be seen in studies by Education World (2013), Johnson (2016) and Reeves (2010). Nevertheless, past research findings indicate that similar barriers are still widely found in schools across both decades (Ho & Lee, 2016; Hord & Sommers, 2008). These barriers continue to be reported in studies even as we enter the third decade of the millennium. One of the most frequently reported barriers at the teacher level is insufficient time to implement PLCs (Kincaid, 2014; Drago-Severson, 2016; Osmond-Johnson et al., 2019; Rivas, 2019; Salleh et al., 2016; Stamper, 2015; Tayag, 2020; Zhang, 2017). This is due to the heavy workload that teachers must bear (Barlow, 2008; Kin & Omar, 2021; Osmond-Johnson et al., 2019; Tayag, 2020).

Additionally, barriers stemming from the aspect of understanding and clarity about the true concept of PLC are highlighted by Admiraal et al. (2019), Ahn (2017), DuFour & Fullan (2013), Gaspar (2010), Ward (2015), Harris et al. (2013), Kin & Omar (2021), Rivas (2019), Sargent & Hannum (2013), and Abdullah et al. (2015). Moreover, the proper way to handle these barriers is addressed by Bambang et al. (2011), Gaspar (2010), Hawkins (2009), Ward (2015), and Abdullah et al. (2015). According to Hoy &Miskel (2001), obstacles related to understanding and managing PLCs not only affect teacher efficacy but also indicate a lack of capacity among teachers to implement PLCs. However, capacity building, as emphasized by DuFour (2004), is essential for high-impact PLCs. Additionally, this capacity serves as a determinant for the success of school transformation efforts (Hawkins, 2009.

The lack of capacity is clearly evident through Gaspar's study in 2010, which found that teachers were not only inefficient in practicing collaborative learning, collective inquiry, and reflective dialogue, but those who did implement these approaches were found not to follow systematic methods and did not use inquiry-based approaches. Additionally, Gilberto (2019) found that teachers faced difficulties in analyzing data. As a result, attempted PLC implementations were less effective (Reeves, 2010; Reeves2016; Hipp and Huffman, 2010; Hord and Tobia, 2012) or failed to demonstrate the expected impact (Gray et al. 2016; Kalkan, 2016; Hipp & Huffman 2010; Hord & Tobia 2012). Moreover, at the local level, several researchers also reported similar findings (Hassan et al. 2018; Kasbi et al 2024; Kin & Omar 2021). However, these findings were made through quantitative studies.

While several local studies, such as those conducted by Chong Chee Keong et al. (2018), Chua et al. (2020), Marzuki et al. (2017), and Abdullah (2009), found similar issues, the samples used were limited to teachers from specific schools only. For instance, Chua et al. (2020) involved a sample of teachers from Chinese National Type Schools in Kedah only. Marzuki et al. (2017) involved a sample of teachers from Religious Secondary Schools in Johor only. Chong Chee Keong et al. (2018) used a sample of teachers from High-Performing Schools in Sarawak only. However, some researchers use broader samples but tend to rely on quantitative methods (Abdullah, 2009). Therefore, qualitative studies with samples encompassing a larger number of teachers from a broader population need to be conducted. This aims to examine barriers in a larger and more comprehensive context based on the perspectives of school teachers.

Furthermore, in the context of local research, studies on barriers remain highly essential, particularly alongside investigations into external barriers. This necessity arises because, as highlighted by Anthony et al. (2021), research concerning PLCs at the local level is still insufficient compared to studies conducted internationally. Moreover, a meta-analysis conducted by Abu Hassan et al. (2020) revealed that the utilization of qualitative methods in research is notably lower compared to quantitative methods. This underscores the ongoing need for an understanding of the obstacles to establishing high-impact PLCs in the local context. Thus, it is imperative to address the existing research gap, as emphasized by this study.

2. METHODOLOGY

This exploratory study employs a qualitative approach through the method of multiple case studies. The study population consists of schools in Malaysia, and purposive sampling techniques were used to select study participants. A total of one teacher from 3 different schools across 14 states, including two federal territories, participated in the study. That means there were a total of 40 study participants involved in this research. Figure 3.1 illustrates the locations of the involved study participants.

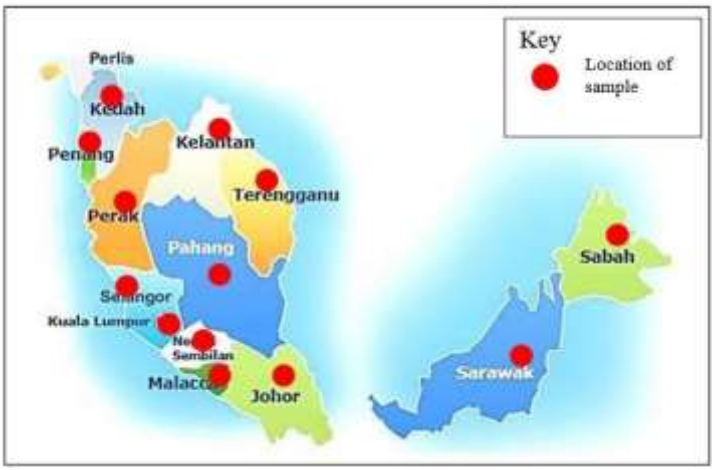

Figure 3-1Location of sample in this study

Next, this study utilized several research instruments consisting of interview protocols (Table 3.2), field notes, and memos to gather research information.

Table 3.1Research questions and primary inquiries in the interview protocol according to the aspect.

Research Question	Aspect	Main Question
1)	Aspect 1 : Demographic Information	Can you introduce yourself?"
	Aspect 2: Exposure Experience with PLCs	To what extent are you involved in PLCs?
To what extent do barriers exist in forming highimpact PLC practices in schools based on teachers' perceptions?	Aspect 6: Barriers to Implementing PLCs	What are the obstacles that you face in implementing PLCs (Professional Learning Communities) in school?

Data collection in the study utilizes interview techniques based on structured interview protocols. These protocols were developed based on procedures suggested by Jacob & Furgerson (2012). The data analysis for this study was conducted after all research materials were collected and organized using Nvivo 12 plus software. The types of analysis conducted are thematic analysis and content analysis. Data analysis began with reading the entire text of the interview transcripts to gain an overall understanding of the issues presented by the study participants and the topics to be examined. Subsequently, the coding technique proposed by Saldana (2013) was employed to process the data. His suggested technique involves two phases of coding cycles.

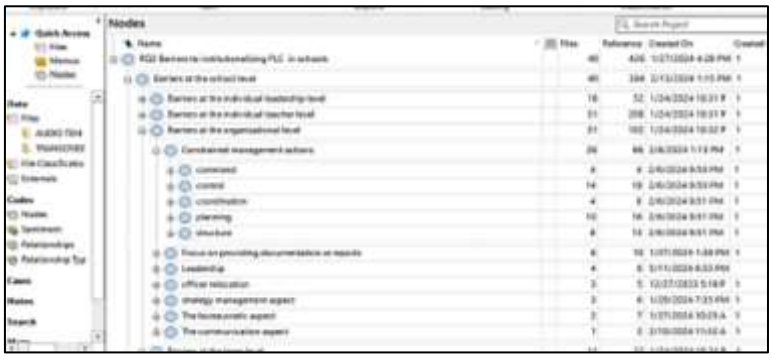

Figure 3-1Theme, sub-theme, and categories for barriers to cultivating PLC in schools.

3. RESULT

The results of the data analysis indicate that there are two main themes regarding the barriers to cultivating high-impact PLCs in schools. These themes consist of barriers at the internal school level and barriers at the external school level as depicted in Figure 4.1and Figure 4.2 below.

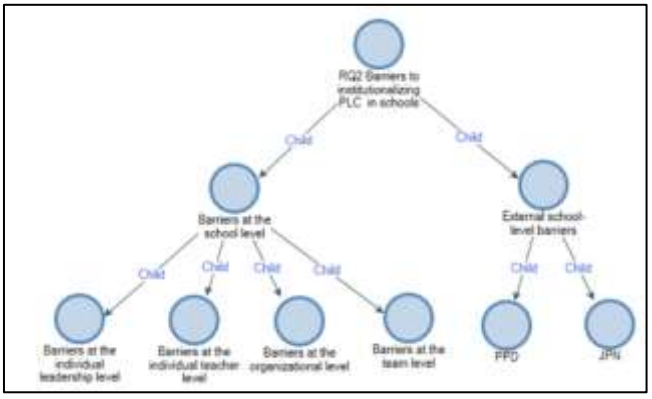

Figure 4-1 Theme and sub-theme for obstacles to cultivating high-impact PLCs among schools.

Internal School Level Barriers

Based on the research findings obtained, the barrier at the school level theme has four sub-themes which consist of barriers at the individual teacher level, barriers at the individual school leader level, barriers at the teacher team level, and barriers at the school organization level. All of these sub-themes are depicted in Figure 4.2 below.

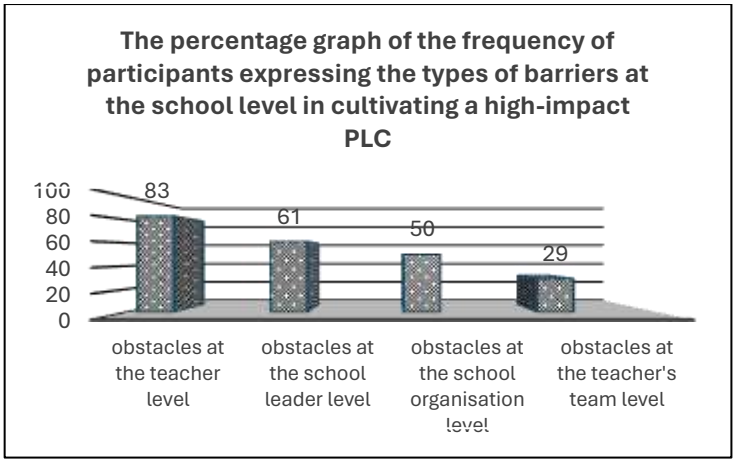

Figure 4-2 The percentage graph of the frequency of participants expressing the types of barriers at the school level in cultivating a high-impact PLC

Based on the Figure 4.2 above, barriers at the teacher level show the highest frequency percentage of the most commonly cited by the participants, which is 83%, followed by barriers at the leader level (61%), organization (50%), and teacher team (29%). This indicates that barriers at the teacher level are the primary barriers that need to be focused on for resolution. However, more detailed information is needed to better understand this phenomenon in line with the context of managing the cultural change of teacher work.

Teacher-level barrier

Barrier at the teacher level are identified to have four emerging categories, consisting of attitude, physical, time, and workload aspects. These aspects are depicted as shown in Figure 4.3 and 4.4. below.

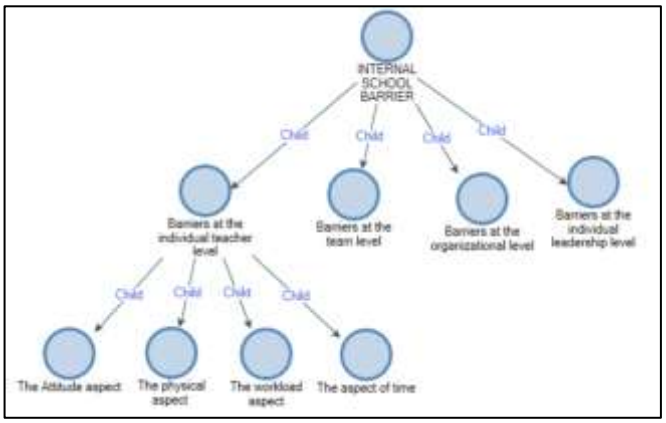

Figure 4-3 Theme, sub-theme and category of barrier at the individual teacher level

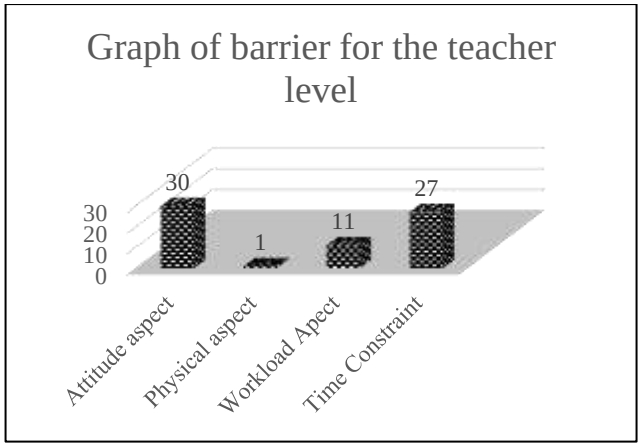

Figure 4-4 Graph of barrier for the teacher level

Based on Figure 4.4, it shows that attitude aspect is the most frequently mentioned aspect by participants, with a total of 30 occurrences. It followed by time constraint (27 occurrences), workload (11 occurrences) and physical aspect (1 occurrence). Each aspect is detailed in the following section.

Attitude aspect

The study's results also identified categories of attitude aspects. While these attitude aspects are delineated based on Jain's (2014) framework, which divides them into three distinct aspects: cognitive, affective, and behavioral. These aspects are illustrated in Figure 4.5. Meanwhile, the content analysis results on attitude aspects revealed findings presented through Figure 4.6 below.

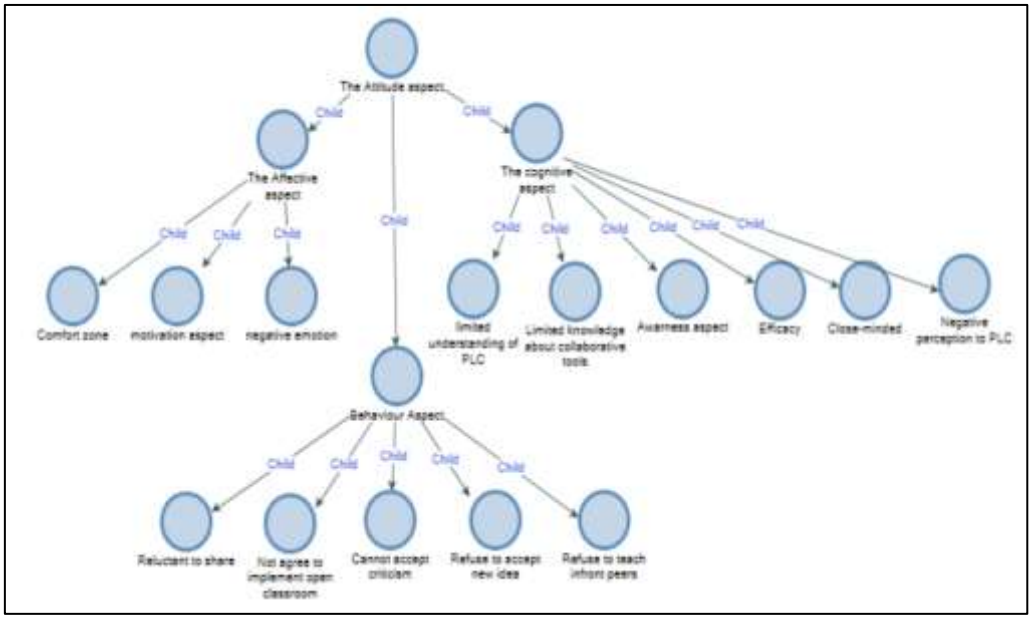

Figure 4-5 Barriers of attitude aspect

Based on Figure 4.6, it is evident that barriers from the cognitive aspect were mentioned most frequently by the study participants, with a frequency of 29 occurrences, compared to the affective aspect (9 occurrences) and behavioral aspect (8 occurrences). The explanation regarding each aspect will be provided in the following section.

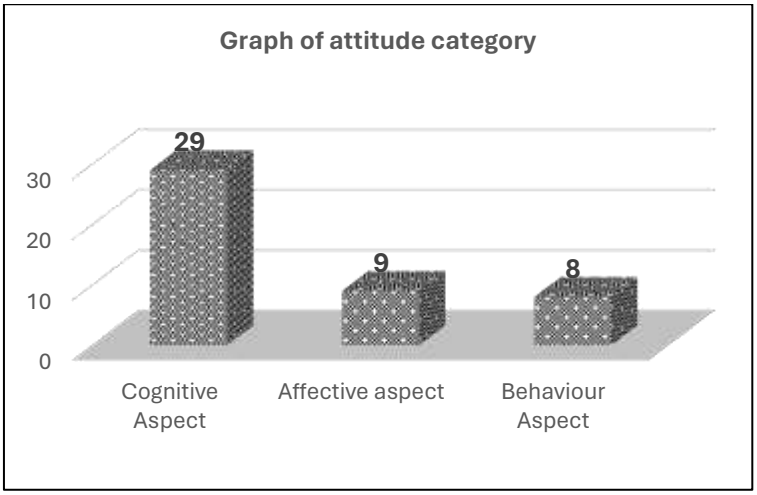

Figure 4-6 Graph of attitude category

Cognitive aspect

The sub-categories of cognitive barriers analyzed through content analysis indicate that teachers face barriers in terms of awareness of the importance of PLCs, closed-mindedness, self-efficacy, limited knowledge of PLC tools, limited understanding of PLCs, and negative perceptions of PLCs. All these aspects are presented graphically in Figure 4.6.

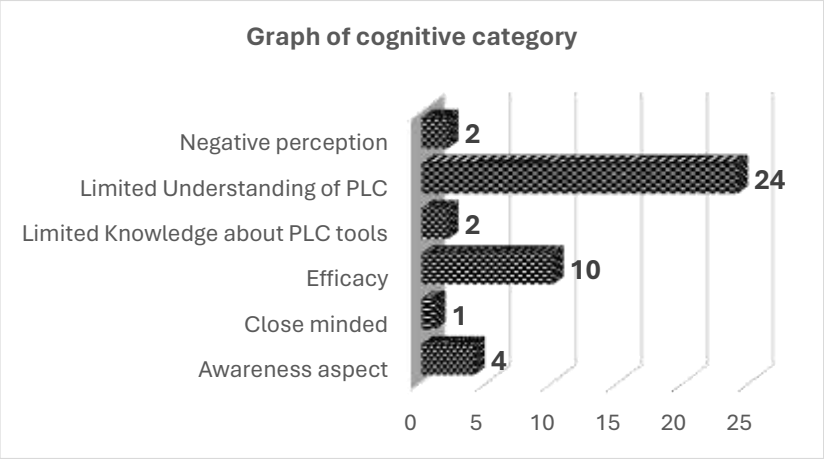

Figure 4-7 Graph of Cognitive Catogery

Based on Figure 4.7, the aspect of limited understanding of PLC has the highest frequency, with 24 occurrences compared to others. Evidence related to this is shown in the excerpt below.
Some aspects are clear (how to do PLC), while others are not clear.
Tb/ pk11 smm/HalSek_Gu_Sik_Kog/ 259
For me, it's still not clear (how to do PLC)... We also don't really understand what PLC actually is.
Tb/pk14 smpp/ HalSek_Gu_Sik_Kog/ 261, 306
Next, teachers were also found to face cognitive barriers arising from self-efficacy aspects, as illustrated in Figure 4.8. Among the self-efficacy aspects mentioned are proficiency in English, data utilization, ICT usage, conducting in-house training, and classroom management. Below are some excerpts related to these matters.

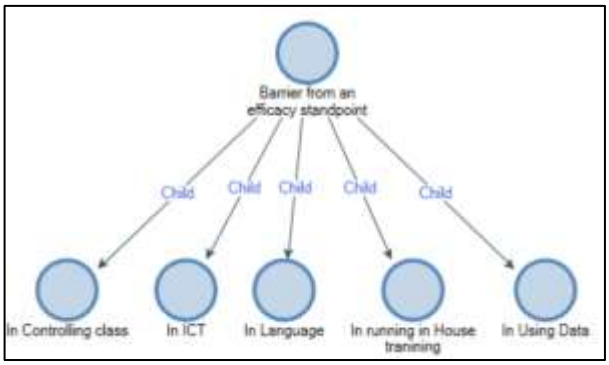

Figure 4-3 Barrier from an efficacy standpoint

When we're not very skilled or proficient in that language, even though our students are much better at it, we feel shy...Friends want to see me, I feel shy when my friends hear my not-so-fluent language. If it's someone else, I feel they might be shy because they don't master English well, that's all.
Tb/ pk21 smkm/ HalSek_Gu_Sik_Kog/32-33,107-110
Sometimes, there's also the aspect where when we attend a course, it's somewhat difficult to convey it back, like let's say we understand 80%, maybe it only comes out as 60% or 70%, in terms of that and the time to convey it.
Tb/pk12 smns/ HalSek_Gu_Sik_Kog/188-191
He still sees PLC as mostly about tasks like reporting, technical stuff
Tb/ pk5 smkd / HalSek_Gu_Sik_Kog/ 293

Furthermore, cognitive barriers arise from teachers' awareness of the importance of PLCs and negative perception about PLC. This is illustrated in the excerpt below.
It's not mandatory because I think it's more about the awareness that comes from understanding... When we're not aware, we tend to ignore it, right?
Tb/ pk28 kvkel/ HalSek_Gu_Sik_Kog/ 178

Affective aspect

The analysis results for the sub-category of affective are shown in Figure 4.9 below. Based on the figure, the highest barrier from the affective aspect is negative emotions (5 occurrences). Meanwhile, barriers from the aspect of discomfort are followed by 3 occurrences, followed by comfort zone with 2 occurrences. For the negative emotion aspect, teachers feel uncomfortable being observed, embarrassed to ask questions, and

ashamed of their weaknesses in English proficiency, causing them to be reluctant to share teaching practices. The excerpt below illustrates this.

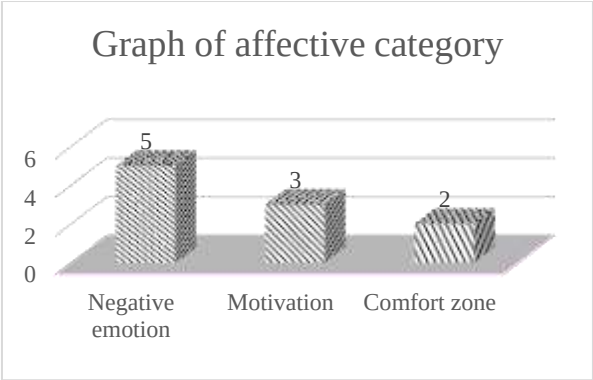

Figure 4-9 Graph of barrier for affective aspect

I also don't really like (people watching the teaching time) even though I've been teaching for a long time.
Tb/ pk23 skkd/ HalSek_Gu_Sik_Aff/ 86-87
Sometimes they actually have good material, but it's lacking. Maybe it's also our fault, we need to ask. We also feel shy to ask
Tb/ pk3 smjh / HalSek_Gu_Sik_Aff/188-191
When we're not very skilled or proficient in that language, even though our students are much better in it, we feel shy. Friends want to see me, I feel shy when my friends hear my not-so-fluent language. If it's someone else, I feel they might be shy because they don't master English well, that's all.
Tb/ pk21 smkm/ HalSek_Gu_Sik_Aff/32-33,107-110
Furthermore, teachers were also found to face affective barriers in terms of motivation and comfort zones, as evidenced by the excerpt below.
In the field of science, it seems like no one is really serious about doing this
Tb/ pk21 smkm/ HalSek_Gu_Sik_Aff 32-33,107-110
Sometimes when we give instructions, it's okay if they're not followed, right? But when it becomes too habitual, being in the comfort zone, they can't accept it anymore.
Tb/ pk33 smph/ HalSek_Gu_Sik_Aff/321

Behaviour aspect

The third sub-category of obstacles to the cultivation of PLC (Professional Learning Community) is behavioral aspects. Content analysis revealed that there are five forms of teacher behavior that hinder PLC in schools, namely being unable to accept criticism, refusing to conduct open classes, unwillingness to share, unwillingness to accept new ideas, and refusing to teach in front of other teachers. All aspects under this sub-category are shown in Figure 4.10. Based on Figure 4.9, it is shown that the most frequently mentioned behavior is teachers being unable to accept criticism, with a frequency of 5 times, followed by refusing to teach in front of other teachers, with a frequency of 3 times. Meanwhile, the other behaviors are only mentioned once. Evidence from interview excerpts related to this matter is stated below.

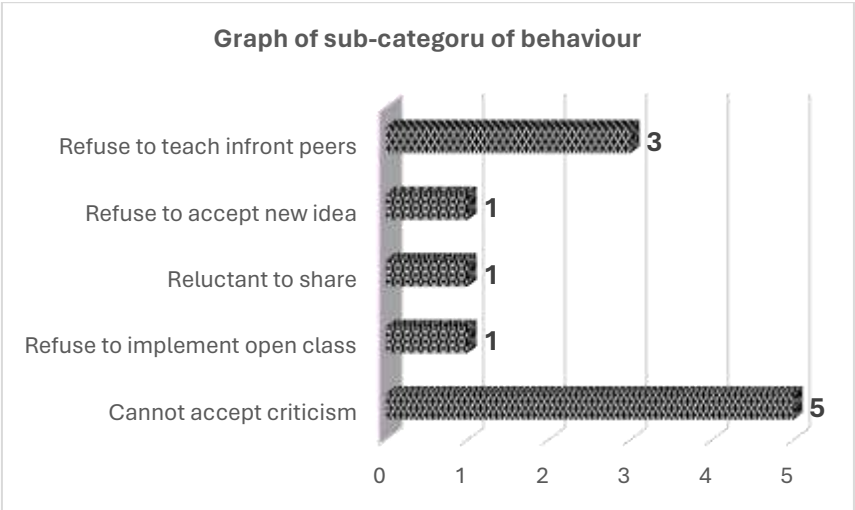

Figure 4-10 Graph of sub-category of behaviour

What I understand is that PLC is a Japanese culture, but our people seem to have difficulty accepting criticism like that. That's why many people struggle with it.
Tb/ pk16 smph / HalSek_Gu_Sik_TLak/167-168
Because they know that when they open their classroom, they'll face criticism, they'll be blamed for many things.
Tb/ pk5 smkd / HalSek_Gu_Sik_TLak/167-168
The following interview excerpt refers to obstacles from the perspective of teachers refusing to teach in front of other teachers, conducting open classes, and rejecting to share and accept new ideas.
The reason they least prefer is being the presenter.
Tb/ pk30 sksb / HalSek_Gu_Sik_TLak/322
Actually, from my experience, the hardest thing is getting teachers to allow us into their classrooms.
Tb/ pk5 smkd / HalSek_Gu_Sik_TLak/188-191
So it's our fault too, sometimes the teachers are also less inclined to share. Sometimes a teacher creates a site, but they won't make it public.
Tb/ pk3 smjh / HalSek_Gu_Sik_TLak/188-191
Some teachers say that perhaps whoever is new, for them it's hard to accept those ideas even though they're easier, like the use of zero and so on, some just can't accept it
Tb/ pk33 smph / HalSek_Gu_Sik_TLak/188-191
Time constraint
Time constraints are among the obstacles frequently mentioned by participants in this study. Teachers face time constraints in implementing PLCs with their colleagues Usually (the obstacle) is time, insufficient time.
Tb/ pk12 smns /HalSek_Gur_Mas /168
Through some of the interviews analyzed, it was found that the time constraints faced by teachers are due to their heavy workload. This was observed through excerpts from interviews with several participants of this study.
The obstacle, this obstacle..is time..because the teacher has a lot of other work
TB/ PK10 SMSK/HalSek_Gur_Mas / 350
So, the free time after that is minimal, teachers have about 33 hours a week. So, there's really not much free time
Tb/ pk24 smns /HalSek_Gur_Mas / 260-261
I didn't review it again because of time constraints, with a busy and overlapping schedule
Tb/ pk33 smph /HalSek_Gur_Mas / 162
Teacher's workload
From the aspect of a high workload becoming an obstacle for teachers to implement PLC in schools. The following is an excerpt from an interview related to this matter.
Nowadays, there's so much other work that there's no time to conduct PLCs.
Tb/ pk16 smph /HalSek_Gur_Beb / 198
Some teachers believe that their heavy workload causes them to have limited time to carry out PLC. Among the factors contributing to the high workload of teachers are extracurricular activities, numerous school programs that need to be attended, duties as dormitory wardens, and various other tasks. Evidence from interview excerpts related to the mentioned issues by study participants is stated below.
Another thing, maybe busy with other work. For example, like extracurricular activities, for instance
Tb/ pk3 smjh /HalSek_Gur_Beb / 211-212
The teacher indeed has a lot of other work, if there are other matters to manage. In addition to school events that need to be attended.. there's just too much work.
Tb/ pk10 smsk/ HalSek_Gur_Beb / 350-351
Now there are so many other tasks that there's no time to do PLC... It's like I've become a dormitory warden. Need to take care of the kids too.
Tb/ pk16 smph /HalSek_Gur_Beb / 198,200
In addition to the teacher's workload, we are assigned various other tasks. There's no time for us to think. Tb/ pk27 smtg /HalSek_Gur_Beb / 157
Physical aspect
The fourth category, which is the barrier at the teacher level from a physical aspect, is teachers facing fatigue issues during PLC discussions. This matter is observed through the following interview excerpt.
When it comes to discussing, only one person seems excited to discuss, while everyone else looks tired. They just agree, okay, whatever, just agree
Tb/ pk14 smpp/ HalSek_Gur_Fiz/ 240-243
School Leaders' Barriers
The analysis of this study indicates that barriers at the leadership level emerge as the second most frequently repeated sub-theme of barriers. These barriers consist of five categories as illustrated in Figures 4.11 and 4.12. The five categories of barriers include limited role in leading PLC, limited role in managing PLC, limited understanding of PLC, limited awareness of leaders, and limited skill in leading PLC. Content analysis results reveal that barriers related to limited role in leading PLC are the most frequently mentioned, occurring 9 times. Meanwhile, barriers related to limited role in managing PLC are mentioned 8 times, followed by limited

awareness of leaders (5 times), limited skill in leading PLC (5 times), and limited understanding of PLC (4 times).

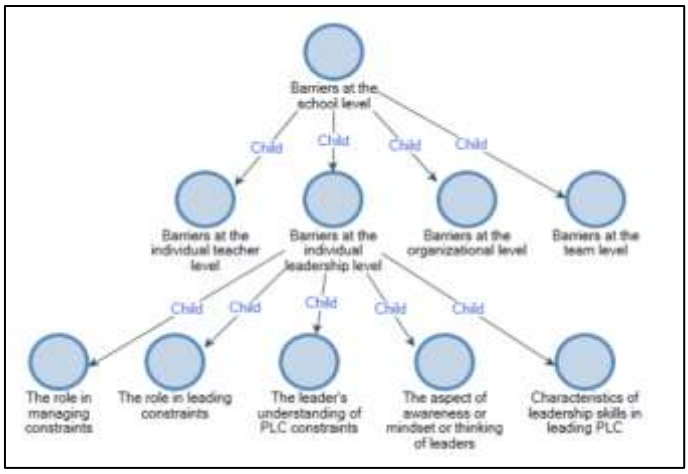

Figure 4-11 Subtheme and categories of barriers at school leadership level

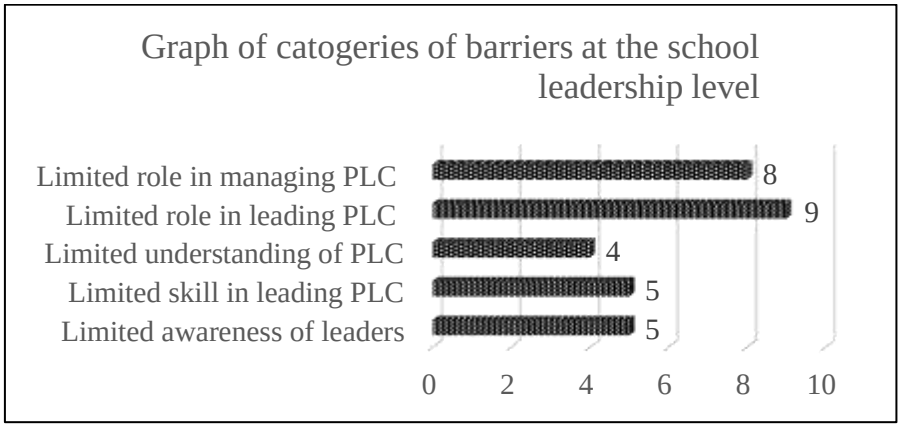

Figure 4-12 Graph showing categories of barriers at school leadership level

Limited Role in Leading PLC

The findings of this study indicate that school leaders have a limited role in leading teachers to implement PLCs. They were found to show little guidance on how to conduct PLCs and only provided instructions to carry them out. This is evidenced by the excerpt below.

Of course! He should have shown examples, right? He could have demonstrated how to do proper reporting, the correct way to do it.

Tb/ pk22 skm / HalSek_Pem_KuMemaiPer/2210-222

So far, there hasn't been any guidance from the principal or the SISC+. He just asked us to do it.

Tb/ pk39 smpk /HalSek_Pem_KuMemaiPer_Mem/129

Limited Role in Managing PLC

The analysis also shows that the study participants believe that school leaders have limitations in managing PLC (Professional Learning Community) in schools. Teachers are given the freedom to decide whether to implement it or not. This means that the implementation of PLC in schools does not involve planning or directives that lead to its cultivation, structuring, coordination, and control. Evidence from interview excerpts related to this matter is presented below.

Whoever wants to do it, can do it. Those who don't want to, don't have to do it. The problem is, it seems like he's not pushing the teachers.

Tb/ pk11 smm / HalSek_Pem_KuMemaiPer_Uru/ 285-288

The principal has never addressed PLC.. If in teacher meetings, he doesn't mention that teachers have to implement PLCs, then there's no emphasis on it.

Tb/ pk21 smm / HalSek_Pem_KuMemaPer_Uru/ 77.78

There's no emphasis from the administrators on implementing PLCs. That aspect isn't highlighted much.

Tb/ pk21 smkm / HalSek_Pem_ KuMemaPer_Uru / 53

Oh, there isn't any so far (giving teachers space to share).

Tb/ pk39 smpk /HalSek_Pem_ KuMemaPer_Uru /110

Pandai pandai, tak dak masa khas..Tak dak tak dak sokongan.

Tb/ pk14 smpp /HalSek_Pem_ KuMemaPer_Uru/266,269

Limited Understandingo PLC

The study also found that teachers believe school leaders have limitations in understanding PLC itself. This is evident through the following quoted interview

It's like we have to do PLC, but when it comes to explaining what PLC is, we have to ask the head of the department. Ideally, the Senior Assistant (GPK 1) should be the reference. GPK 1 passes it down to the head of the department. I'm not sure who attended the course, whether it was the GPK or the head of the department, but when they come back and try to explain, they themselves don't understand.

Tb/ pk16 smph / HalSek_Pem_KuKef / 45-47

Limited skill in leading PLC

In addition, this study also found that school leaders have limitations in terms of leadership skills in leading PLC in schools. These leaders were found to provide inadequate guidance to teachers in finding solutions to problems as they should. This matter is observed through the interview excerpts below

If it's our committee, it's mainly because the guidance from them is limited to discussions and guidance, and if it's guidance, we just discuss the issues.

Tb/pk31 smsb / HalSek_Pem_KuKem_ Mem /124-125

He (the principal) did provide the link (PLC materials)... he (the principal) has highlighted it, so teachers can surf it themselves.

Tb/ pk38 smpk / HalSek_Pem_KuKemah_MemL/112

Limited Awareness of Leader

The analysis also identified a limitation in awareness among school leaders as a barrier to their success in fostering PLC culture in schools. The following interview excerpt is relevant to this finding.

That's why it seems like he doesn't see it as important, even though PLC might have been mandated by the Education Department, he doesn't emphasize it

Tb/ pk14 smpp/ HalSek_Pem_KuSed / 291-293

The obstacle to implementing PLC might be that the administrators themselves don't feel the need for us to apply this program. In our vocational college, when there's a new program from the Education Department, we feel like it doesn't concern us.

Tb/ pk28 kvkel/ HalSek_Pem_KuSed / 130-131, 142

The administrator might think of this as just a side thing to do, like it's optional; if we don't do it, it's okay. So, that becomes a barrier to the overall implementation of PLC in the school.

Tb/ pk33 smph / HalSek_Pem_KuSed/ 309-310

Barrier At Organizational Level

The third sub-theme of obstacles encountered through this study is organizational-level barriers. The categories of obstacles that emerged consist of bureaucratic culture and communication aspects, constraints in PLC management, leadership aspects, strategic management aspects, and leadership. All these aspects under this category are depicted in Figures 4.13 and 4.14. Based on the list of obstacles, the obstacle from the aspect of PLC management has the highest frequency mentioned by study participants, totaling 31 times.

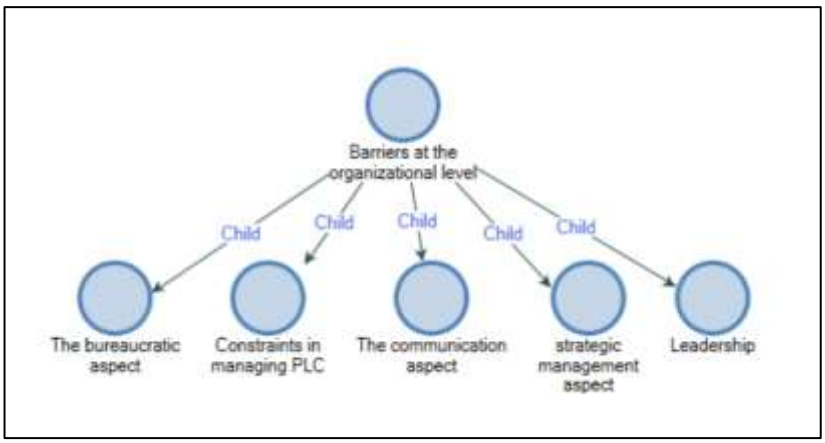

Figure 4-13 Barrier category at the organizational level

Constraints In Managing PLC

The content analysis conducted also indicates that constraints in PLC management consist of limitations in planning, directives, structuring, organizing and control aspects. Meanwhile, the control aspect is the most frequently mentioned. Evidence related to this matter is provided below.

Usually, like I, as the chief of panel subject, report to the head of the subject panel. Usually, we take pictures, come and act like that, right? Oh, there isn't any. They just talk about doing PLC. There's no systematic approach.
Tb/ pk16 smph /HalSek_Org_KuUru/59-60,115
Whoever wants to do it, does it. Whoever doesn't want to do it, don't bother. The problem is, it seems like there's no push for the teachers
Tb/ pk11 smm /HalSek_Org_KuUru/256-257

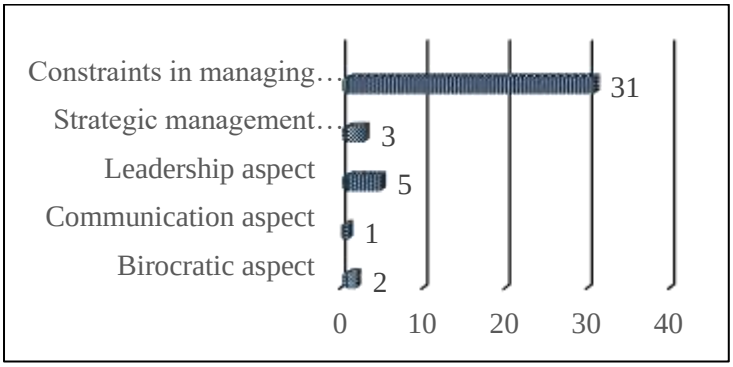

Figure 4-1 Graf of barrier category at organizational level

Strategic Management Aspect

Obstacles are also identified to arise from the aspect of strategic management. Based on the evidence found, the organization does not employ strategic management involving all teachers to attend the curriculum audits session. Evidence related to this matter is presented below.
If there's an audit, then only the head of committees presents (teachers are not involved)..
usually the principal will call the Senior Assistant (GPK 1), then they'll call the head of departments, deputy heads, and what's the name... oh yeah, the head of committees, that's it.

Tb /pk14 smpp /HalSek_Org_KuStra/256
Furthermore, the organization was found not to utilize assumptions to consider teachers' abilities in understanding PLC implementation. The evidence is presented in the excerpt below.
The administration welcomes and encourages the initiative. but the thing is, not all teachers understand. But they expect everyone understand. It, okay? As long as there's a report.
Tb/ pk11 smm / HalSek_Org_KuStra /346

Barrier in Birocratic Aspect and Communication

From a bureaucratic aspect, obstacles also arise and hinder effective communication channels to disseminate information obtained from external agencies about PLC. The following interview excerpt is provided to substantiate this.
I informed the Chief of Subject Panel. I showed them the letter I received about it. As for the principal, I didn't inform them because it's not the right time. If the Chief of Subject Panel informs the principal, then they'll know. I don't think the principal is aware (about the PLC input from Petronas) Tb/ pk16 smph /HalSek_Org_Bir /252-253, 255

Barrier At Teacher Team Level

The fourth sub-theme of barrier is barrier at the teacher team level. There are three categories under this theme, namely limited cooperation from peers, limited commitment, and opposition from peers. The first category of obstacles at the teacher team level is limited cooperation among fellow teachers. Some fellow teachers within the same team provide less cooperation in implementing PLC, while others cooperate. This is observed through excerpts from interviews conducted as part of the study, as shown below.
Perhaps there are teachers who don't want to cooperate. Some are willing to provide cooperation, while others say, "No need," and some say, "Sure, come in." That's how it is, not everyone cooperates
Tb/ pk11 smm /HalSek_Pas_KuKerj /243
There are times when we want to ask for cooperation from our fellow teachers, to give us space, but we still can't get it... so, dealing with colleagues can be a bit difficult
Tb/ pk18 smjh /HalSek_Pas_KuKerj /96-96
In addition, limited commitment from fellow teachers also becomes a barrier to the implementation of PLC in schools. The following is an interview excerpt related to this matter
Most of the commitment comes from the teachers themselves wanting to learn something new... that's what makes it difficult to break through that barrier.
Tb/ pk33 smph /HalSek_Pas_KuKomi /327-328

Next is the category of opposition from fellow teachers towards the implementation of PLC. This causes teachers to lack the support of colleagues in implementing PLC. This is evidenced by the following excerpt.
Perhaps, sometimes when there's a new structure, there are easier examples. I suggested doing analysis on items together, but sometimes it faces opposition from some teachers
Tb/ pk33 smph /HalSek_Pas_Tent /280-282

External School Barriers

The analysis of this study also found that the second theme of obstacles that exist is external to the school. These obstacles consist of the district education office and related departments, which constitute two categories. However, the District Education Office category was more frequently mentioned as providing less support to schools in managing PLC.

State Education Office

The first external barrier is the State Education Department (JPN). One of the barriers identified is the insufficient monitoring of Professional Learning Communities (PLCs) in schools that are performing well and lack of follow up after exposure being given. The following excerpt from an interview serves as evidence of this issue.
With good results, the department folks won't bother us, saying we didn't come to monitor
Tb/ pk21 smkm /HalLuSek_JP_KuPan/ 148
Actually, for vocational colleges, the JPN doesn't often invite us to delve deeply into specific programs or techniques because we are acknowledged as a different system from Ministry schools. We are only invited for initial exposure, and after that, they don't call us anymore.
Tb/ pk28 kvkel / HalLuSek_JP_KuSus/ 98-99

District Education Office

The second sub-theme of the barrier to cultivating PLCs in schools is at the DEO level. At this level, it is observed that DEOs have a limited support structure provided to schools, especially in terms of expert resources for guidance. The limitation in terms of expert resources is not only found in the restricted number of officers, The guidance given to teachers is limited, but also in the limited skills available. This issue is clearly illustrated in the interview excerpt provided below.
Science, Mathematics, and English. Those subjects are what I remember because for Science, there are no SISC officers for Secondary School.
Tb/ pk6 smsb /HalLuSek_PP_KuStrSumb/ 98-99
Last year,... There's no guidance on PLCs by PPD officers.
Tb/ pk13 smjh /HalLuaSek_PP_ KuBim/136
I don't have (specific guidance on the use of collaborative PLC strategies)
Tb/ pk29 smkel / HalLuaSek_PP_ KuBim / 122
The barrier in the form of officer guidance needs to be overcome. This is because teachers at the schools still lack understanding of PLCs for implementation. This was found through the following excerpt

In terms of the type of guidance, it's because we lack, meaning we understand less
Tb/ pk6 smsb /HalLuaSek_PP_KuBim/88-91
However, the skills of officers also emerge as one of the barriers at the PPD level that require attention. This was observed in the excerpt below

Another issue arises when officers come to observe... It means when they come, for example, SISC says they're coming to help, but they end up interfering with everything, nothing goes right. So, it's like they lose motivation there. It's not just SISC, it includes PPD officers, JPN officers who come, right? So, these are the things that actually don't support teachers to open up their classrooms
Tb/ pk5 smkd / HalLuaSek_PP_KuMah /169-170,304-308
Another barrier at the PPD level is limited guidance. There are schools that still have not received guidance or exposure regarding PLCs from officers at the DEO. This was found through the interview excerpt below

From the district, we haven't received exposure about PLCs... When officers from the PPD come to schools, none come for exposure on PLCs... If the PPD comes to the school, there's none... There's no guidance on PLCs by PPD officers
Tb/ pk13 smjh / HalLuaSek_PP_KuBim /26, 205, 223

Furthermore, some teachers in this study who received exposure from the DEO about PLCs. However, the exposure provided was less effective. This can be seen through the excerpt below.
There's none, just information given, presentation methods, student group discussions... like that, mostly through handouts..

Tb/ pk29 smkel / HalLuaSek_PP_PenatKuKes /116,119,122
In addition, the PPD is found to have limitations in providing opportunities for sharing at the district level, as seen in the interview excerpt below.

There isn't any yet (easy pathway for sharing)
Tb/ pk16 smph / HalLuaSek_PP_KuStruPel / 235
Last year, formally, there wasn't any presentation.
Tb/ pk13 smjh / HalLuaSek_PP_KuStruPel /136
Furthermore, some teachers in this study reported that there is no monitoring of PLCs conducted in schools to ensure their implementation. This was found through the following excerpt
There is no monitoring for our PLC
Tb/ pk27 smtg / HalLuaSek_PP_KuPeman / 98-99
Based on the description of the findings above, it indicates that the school is facing various obstacles at different levels that need to be known by stakeholders in order to be addressed

4. DISCUSSION OF RESULT

The effort to cultivate high-impact PLCs in schools faces various obstacles at different levels. These obstacles form a chain of cause and effect from the teacher level to higher levels. The most frequently encountered obstacle is cognitive, particularly at the teacher level, referring to the understanding of the PLC concept and its importance. This lack of fundamental understanding not only affects the low-impact implementation of PLCs but also the cooperation and commitment of fellow teachers in implementing PLCs
These obstacles stem from limited exposure and training that are not well-structured to build understanding among teachers about PLCs and their importance. Additionally, a lack of time to implement PLCs is often reported, due to the various workload tasks structured for teachers by school leaders. These tasks include cocurricular activities, student affairs activities, covering for absent teachers, and the obligation to attend various programs. This indicates that the high workload is related to the task structuring imposed by school leaders. However, sufficient time structuring to meet the basic needs of teachers in implementing PLCs is less emphasized, as is training to understand the PLC concept and its importance.

According to global education experts, structuring resources and training is within the authority and autonomy of school leaders (OECD, 2015). This shows that school leaders play an important role in managing PLCs in schools, but in the context of leading PLCs, their role is still limited. According to role theory, limitations in the roles played stem from an understanding of the roles they need to play. Additionally, limited understanding of the PLC concept and its importance among school leaders results in the basic needs to support teachers receiving less attention and priority.

This is clearly seen through the analysis of the data obtained. The most frequently reported obstacles at the school leadership level are the limited role in leading and managing PLCs and a low understanding of PLCs. The limited leadership role includes guiding teachers in solving PDP issues within PLCs, influencing teachers through continuous communication about PLCs, and the lack of emphasis on PLC implementation. Meanwhile, the limited management role includes planning, structuring support in terms of training to enhance understanding, structuring meeting times, giving implementation instructions, coordinating, and controlling PLC activities.

However, the obstacles at the school leadership level are closely related to obstacles at the PPD and JPN levels. Limited training structuring support provided to teachers and school leaders results in a lack of understanding to perform their roles effectively. This lack of understanding can lead to insufficient support and priority given to teachers. Additionally, support in the form of vision and purpose, active involvement of DEO and SEO, and monitoring related to PLCs or professional development is necessary to ensure that school leaders prioritize fostering and supporting PLCs alongside fulfilling other job demands (Education World, 2013). However, this is not reported to occur.

Therefore, this study highlights various obstacles at different levels that complicate the cultivation of PLCs in schools. This indicates that an effective strategic approach is needed, including providing adequate training, resources, and time, as well as fostering a school culture that supports collaboration and continuous professional development.

5. CONCLUSION

In conclusion, the effort to cultivate high-impact PLCs in schools faces various barrier at multiple levels. The primary barrier is the lack of fundamental understanding of the PLC concept and its importance among teachers, which stems from limited exposure and inadequate training. Additionally, the lack of time to implement PLCs is often due to the high workload structured for teachers by school leaders.

At the school leadership level, their roles in leading and managing PLCs are also limited, especially in aspects such as guiding teachers, managing PLCs through structuring support in terms of training and time. These limitations not only hinder effective PLC implementation but are also closely related to limited support from district and state education offices (DEO and SEO).

To overcome these barriers, an effective strategic approach is required. This includes providing adequate training, appropriate resources, and sufficient time, as well as fostering a school culture that supports collaboration and continuous professional development. With better structuring and ongoing support at all levels, PLCs have the potential to significantly enhance the quality of education in schools. This approach demands that school leaders better understand and actively and effectively play their roles in leading and managing PLCs. By doing so, the support provided to teachers and school leaders will be more effective, and the implementation of PLCs can be more successful, leading to improvements in the quality of teaching and learning in schools.

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