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Leadership of Professional Learning Communities in Singapore schools: The tight loose balance

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Keyword:	Leadership, teacher leader, distributed leadership, professional learning communities
Abstract:	<p>Purpose: This paper presents a study on how professional learning communities (PLC) are developed in an Asian setting, and the nature of leadership that helped to cultivate and sustain PLC in such a context.</p> <p>Research Method: The study adopted a sequential mixed method, starting with a survey followed by qualitative case studies, involving focused group discussions and interviews. This paper focuses on findings derived from the qualitative data, triangulated with the survey data.</p> <p>Findings: The study raises questions about common assumptions regarding PLC, and shares how Singapore's unique cultural context mediates and filters western notion of PLC and of shared leadership for PLC. The study suggests that leadership for PLC requires a centralised decentralisation approach, which provides clarity and alignment through strategic direction and supporting structures, while simultaneously enabling the distribution of leadership to teachers. The paper also explicates the tensions that arise due to the need to balance a tight loose approach, and suggests how organisational and inquiry structures can both enable and constrain the distribution of leadership in a PLC setting. Implications: Findings from the study has implications for policy makers and leaders in schools who are steering PLC initiatives.</p>

Leadership of Professional Learning Communities in Singapore schools: The tight loose balance

Abstract

Purpose: This paper presents a study on how professional learning communities (PLC) are developed in an Asian setting, and the nature of leadership that helped to cultivate and sustain PLC in this setting.

Research Method: The study adopted a sequential mixed method, starting with a survey followed by qualitative case studies, involving FGDs and interviews. This paper focuses on findings derived from the qualitative data, triangulated with the survey data.

Findings: The study raises questions about common assumptions regarding PLC, and shares how Singapore's unique cultural context mediates and filters western notion of PLC and of leadership for PLC. The study suggests that leadership for PLC requires a centralised decentralisation approach, which provides clarity and alignment through strategic direction and supporting structures, while simultaneously enabling the distribution of leadership to teachers. The paper also explicates the tensions that arise due to the need to balance a tight loose approach, and suggests how organisational and inquiry structures can both enable and constrain the distribution of leadership in a PLC.

Implications: Findings from the study has implications for policy makers and school leaders who are steering PLC initiatives.

Key words

professional learning communities, distributed leadership, teacher leaders

Introduction

Much has been written in the literature extolling the virtues of professional learning communities (PLC) and how PLC contribute to teacher and student learning, and in turn school improvement (Day et al., 2007; DuFour, 2015; Stoll et al., 2006; Vescio et al., 2008). The aim of this paper is not to add to the advocacy literature, but to address a gap, which is the scarcity of empirical research on PLC in Asian settings (Hairon and Dimmock, 2012; Sun-Keung Pang et al., 2016; Chen et al., 2016). This is a significant gap considering that context determines the development, form and functions of PLC (Edwards, 2012; Pang and Wang, 2016; Zhang and Pang, 2016). In addition, the literature suggests there is still more we can study about the kind of leadership required to cultivate and sustain PLC (Chen et al., 2016; Wang, 2016; Qiao et al., 2017; Gray et al., 2015). Thus, the aim of this paper is to share our findings on how PLC are developed in an Asian setting, specifically in Singapore, and the kind of leadership which is required to cultivate and sustain PLC.

To date, there has been little research on how the Western concept of PLC transfers to other cultures, particularly one which is hierarchical and has a large power distance (Hairon and Dimmock, 2012; Hofstede, 2003). Central to the western notion of PLC is collaborative learning with peers, with the underlying assumption that teachers want to take control of their professional development, and that they want to learn as a community (Stoll et al., 2006). There is also the assumption that teachers want to have a voice in crafting shared values and vision for the PLC (Watson, 2014) and to play leadership roles, with the corresponding assumption that school leaders need to distribute leadership (Chen et al., 2016; Olivier and Hipp, 2010; Song and Choi, 2017). A third assumption is that PLC should emerge organically and should not be a top

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3 down implementation (Kruse and Louis, 2008). With respect to the third assumption, it is
4
5 observed that even Singapore-based researchers (Hairon and Dimmock, 2012) expressed concern
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7 that the generally top down approach favoured in Singapore might go against the spirit of PLC,
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9 which depends on teacher initiatives to engage in communities of learning. This paper attempts
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11 to illuminate how Singapore's unique cultural context mediates and filters western notion of PLC
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13 and of shared leadership for PLC.
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19 **Professional Learning Communities in Singapore**

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21 Although Kruse and Louis (2008) noted the general assumption in the literature that PLC should
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23 emerge organically and not be a top down implementation, their study suggested the importance
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25 of top-down initiatives to launch and sustain PLC efforts. They found that the district is key in
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27 fostering commitment for PLC implementation. In Singapore, PLC can be considered a top down
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29 initiative in that it was promoted by the Ministry of Education (Ng, 2009), although the decision
30
31 to establish the school as a PLC is ultimately a local decision. The Ministry mooted the idea of
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33 PLC, provided guidelines in terms of "three big ideas" – 1. Ensuring students learn; 2. Building a
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35 culture of collaboration; and 3. Focusing on student learning outcomes (Dufour, 2015) and four
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37 critical questions on student learning (DuFour and Fullan, 2013), and recommended the
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39 provision of at least one hour for the professional learning teams (PLT) to meet, known as
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41 timetabled time (Shanmugaratnam, 2005).
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47 Paradoxically, the Ministry's 'centralised' promotion of PLC was part of its move
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49 towards greater decentralisation and "bottom up initiative", to encourage schools and teachers to
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51 initiate curricular and pedagogical innovations (Shanmugaratnam, 2005). The Ministry's
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53 promotion of PLC is an example of the centralised decentralisation approach of the education
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3 system in Singapore (Ng, 2017). Singapore also provides a unique case where PLC have been
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5 implemented on a national scale for nearly a decade, in more than 300 schools (Lee and Lee,
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7 2013). The closest similar context is China where PLC practices are also structured within a
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9 centralised system (Qiao et al., 2017).
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14 **Methodology**

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17 In 2016, the Singapore Ministry commissioned a study to review the current stage of PLC
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19 to chart the direction for the next 5 years. Two overarching questions guided the study: 1. What
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21 is the current state of PLC in school? and 2. What are the ways forward to leverage PLC to
22
23 enhance pedagogical practice among teachers? The study adopted a mixed method approach. For
24
25 the quantitative part, the study adapted the Professional Learning Communities Assessment-
26
27 Revised questionnaire (Olivier and Hipp, 2010). Building on Hord's (1997) work, Hipp and
28
29 colleagues (2008) proposed five dimensions to assess the state of PLC:
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- 34 1. Shared and Supportive Leadership: School leaders share power, authority, and decision-
35 making, while promoting and nurturing leadership in teachers
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- 38 2. Shared Values and Vision: Staff share visions that focus on student learning, and support
39 norms of behavior that guide decisions about teaching and learning
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- 42 3. Collective Learning and Application: Staff share information and work collaboratively to plan,
43 solve problems, and improve learning opportunities
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- 46 4. Shared Personal Practice: Peers meet and observe one another to provide feedback on
47 instructional practices and to assist in student learning
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- 50 5. Supportive Conditions
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54 a. Relationships: includes respect, trust, caring relationships
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3 b. Structures: includes communication, time and space to meet
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5 The adapted questionnaire consisted of 49 items and each item was rated on a four-point
6 Likert scale (1 = Strongly Disagree to 4= Strongly Agree). After each dimension, staff were
7
8 asked to respond to an open-ended question, which sought to capture the strengths and
9
10 challenges in the specific dimension. In addition, staff were asked to rate their school's PLC
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12 development stage in each of the five dimensions, based on three of the four development stages
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14 proposed by Hipp and colleagues (Hipp et al., 2008; Hipp and Huffman, 2010): initiation,
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16 implementation and institutionalisation. Initiation is the stage at which the school first decides to
17
18 adopt PLC; implementation is when a school has operationalised PLC; finally,
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20 institutionalisation is when PLC is an integral part of school life, where staff apply new learning
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22 to their work to address student needs, regularly observe one another and provide feedback, and
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24 review student work together.
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31 The qualitative part of the study included focused group discussions (FGDs), involving
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33 the School Staff Developer, two Professional Learning Team (PLT) leaders, and two PLT
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35 members from each school. Each school member was involved in one FGD, together with
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37 similar members from other schools. For example, there were 6-8 PLT leaders from different
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39 schools within one FGD. In summary, this study involved a total of twenty schools, comprising
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41 eight primary (grades 1 to 6) and twelve secondary schools (grades 7-10). A total of 1791 school
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43 staff responded to an online survey (1044 remained after cleaning up the data) and 98 staff
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45 participated in 14 FGDs. The top two high schools, bottom two low schools, and two medium
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47 schools were identified for further interviews after initial analysis, involving the School Staff
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49 Developer and one additional PLT leader.
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3 The results from the questionnaire were analysed separately for the primary and
4 secondary schools. Scores for each school were derived by calculating the mean score in each
5 dimension, with each school having six mean scores. The scores were then averaged and as the
6 mean scores of the twenty schools were concentrated in the middle on a scale of 1-5, further
7 analysis within each level was done using z-scores. A z-score is an actual score transformed into
8 standard deviation units which indicates how much a score deviates from the mean. Using the z-
9 scores, schools with larger standard deviation, as compared to the others, were classified as high
10 band and low band. The rest were classified as medium. This categorisation and the staff's rating
11 of their schools' PLC development stage in each of the dimensions were then triangulated with
12 the FGDs and the open ended response in the survey to identify nuances in implementation.
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26 The FGD questions were co-constructed by a team of 8 researchers, guided by Hipp and
27 Huffman's six dimensions and three stages. Examples include "how much say do you feel you
28 have in making decisions in your PLT" (shared leadership) and "how were goals for your PLT
29 derived?" (shared vision). Qualitative data from each school was first coded separately by two
30 researchers, who then agreed on the coding. The codes from the 20 schools were combined and
31 re-categorised to assist in the second round of analysis. Individual reports were written for each
32 school and shared with the schools for member checking.
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42 This paper is based on qualitative findings from the two high and two low band schools,
43 indicating what appeared to work in cultivating and sustaining PLC in the high schools, and
44 conversely what seemed to constrain the implementation of PLC in the low schools. The paper
45 focuses on three dimensions: shared and supportive leadership, shared vision and values, and
46 structures, as these are most closely related to the role of leadership. Similar to a study of PLC in
47 Taiwan (Chen et al., 2016), this study found that shared and supportive leadership, shared vision
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and values were important to the formation and sustainability of PLC. In another study, Gray and colleagues (2015) found enabling school structures to be one of three antecedents of PLC. For this study, the importance of the three dimensions was found through structural equation modeling and participants' response in the qualitative data.

Overview of the High and Low Schools

Table 1 below provides an overview of the two high and two low band schools. The name of the school indicates if it is a high (H) or low (L) school – with S indicating a secondary school and P indicating a primary school. The dimension scores are from the questionnaire, while the percentage of staff's perception of the development stage for each dimension is based on the three stages of PLC development. In general, the percentage of staff who rated the dimensions as institutionalising in the high schools is higher than the percentage who rated the dimensions as institutionalising in the low schools. It is important to note that although two schools are classified as high and two as low, the majority of staff in the four schools perceived their schools to be in the implementing stage across the dimensions. What this paper is sharing are the nuances in leadership which distinguish a high school from a low school.

Table 1. Quantitative Data for the Four Schools.

School (level)	Dimension scores*		Percentage of staff		
			Initialising	Implementing	Institutionalising
HS 1 (secondary)	SSL:	3.40	1.8	58.9	39.3
	SVV:	3.50	0.0	56.6	43.4
	STRUC:	3.51	1.9	48.1	50.0
HP 1 (primary)	SSL:	3.39	0.0	67.3	32.7
	SVV:	3.41	5.5	63.6	30.9
	STRUC:	3.46	1.8	55.6	42.6
LS 1	SSL:	2.89	34.3	62.9	2.8
	SVV:	3.00	34.3	51.4	14.3
	STRUC:	2.96	22.8	68.6	8.6

School (level)	Dimension scores*		Percentage of staff		
			Initialising	Implementing	Institutionalising
LP 1	SSL:	2.90	36.6	61.0	2.4
	SVV:	2.87	29.3	65.8	4.9
	STRUC:	2.86	37.5	57.5	5.0

*SSL: shared and supportive leadership; SVV: shared values and vision; STRUC: structures

Findings and Discussions

Lee and Lee (2013) noted that PLC implementation in Singapore has a tight-loose approach.

However, their analysis was at the level of policy and school; they observed that while policy is 'tight', schools have the flexibility to implement PLC to meet their schools' needs. Policy is tight in that PLC were first mooted by MOE in 2008. Policy is also tight in terms of advocating a PLC model for Singapore schools with three big ideas (DuFour, 2015) of ensuring students learn, building a culture of collaboration, and focusing on student outcomes. Policy is loose in that schools decide how they wish to implement PLC, and there is no tracking of how schools implement PLCs.

Leadership for PLC: Tight and Loose Combination

Our findings suggest that PLC implementation within Singapore schools also has a tight-loose approach- tighter at the school level, and looser at the department and PLT levels. Another way of viewing this combination is the centralised decentralisation concept that Ng (2017) observes is typical of how the education system in Singapore operates. In the two high schools, this centralised decentralisation approach is operationalised through the school leaders (comprising the principal and vice-principal) setting broad directions for the PLC and sharing leadership with

- 1) The **School Staff Developer** (who plans and manages the school's mentoring processes and professional learning programmes, including the PLC);

- 2) The Heads of Department (who ensure alignment between the department PLT's focus and the school's PLC direction), and
- 3) The Lead and Senior Teachers (who have the pedagogical expertise and the facilitation skills to lead the PLTs). In Singapore, Lead and Senior Teachers are on a teaching track, which is distinct from the leadership track for leadership posts such as Heads and Principals. The role of these teacher leaders is to develop the pedagogical capability of the teaching force (Ministry of Education, 2017).

In HS 1, staff perceived the school as having a “compelling overarching vision”, and viewed PLT activities as “aligned with the vision for school improvement”. In the FGDs, PLT leaders observed that their PLTs are aligned to “Strategic Thrust 1 which is quality curriculum” to address students’ learning gaps and to “increase their engagement”. This alignment is supported by a School Curriculum Innovation Team, led by the **School Staff Developer** and consisting mainly of Senior Teachers, who facilitate the PLTs to adopt “a certain pedagogical approach”, decided “together with the ... blessings of the school leaders”. The pedagogical approach is generally broad, such as adopting “active learning” to “increase student engagement”. In the survey, staff agreed that there is “clear direction and academic focus at the start of the year” and that “With every new PLT session, values and visions are underlined first”. At the same time, while staff perceived there is strategic alignment, they agreed “there is room for flexibility” with regard to choice of PLT foci and the inquiry method.

Similarly, in HP 1, there were observations that “PLC support the school’s strategic thrust” of engaged and competent staff, and “all [PLTs are] moving in the same direction”. At the same time, “School leaders empower the team to make decisions and implement the changes”. In HP 1, in the absence of a School Staff Developer, a Lead Teacher had been taking

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3 charge of PLC, in consultation with the school leaders and the Heads of Department. Direction
4 for the PLC is set by this executive team, and operationalised through a team of teacher leaders,
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6 comprising two Lead Teachers and seven Senior Teachers. The Lead and Senior Teachers also
7
8 serve as PLT leaders, who help align PLT work to the broad direction set. However, the specific
9
10 PLT focus is decided “together as a team” with the teachers.
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15 Thus, in both high schools, there appeared to be “strategic alignment with tactical
16 empowerment” (Ng, 2017, p. 76). The HS 1 PLT leader who was interviewed explained this
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18 concept succinctly:
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23 “Usually the [PLT] topic is *selected in consensus* with the group... Of course, *there’s*
24 *certain directions already in place*, otherwise we will be coming up with a lot of random
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26 thrusts right? So this [selected topic] would be *in line with certain teaching and learning*
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28 *directions that are set by the school.*” (italics by reseachers)
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33 While the low schools also provided some form of alignment, this alignment was more to
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35 goals at the department rather than the school level, or to a specific pedagogical or curriculum
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37 focus such as questioning technique (LS 1) or Making Thinking Visible (LP 1). In general, there
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39 was no evidence of a collective PLC vision, as the PLT projects were mainly aligned to the
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41 respective departments’ direction. In LP 1, staff generally perceived a lack of clarity in the
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43 school's direction regarding PLC. This might explain why staff were still “grappling” with what
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45 kinds of PLC outcomes were important, and were "uncertain if they are doing it right":
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50 “Yeah, so I feel that I’m just tasked to do it and I do it the way I do it without really
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52 knowing if I’m on the right track or it really benefits ...”
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3 Similarly, staff in LS 1 shared that "not much directions were given regarding PLT"; they
4 were not clear how their PLT work was aligned to the school's vision, "areas of focus" or "long-
5 term strategic plans". This lack of clarity is reflected in the **School Staff Developer's** conflicting
6 assertions during the interview that the school provides a "clear general direction", yet "there's
7 also a lack of direction", there are "no overall arching goals", and "every department has a
8 different...focus". In the extreme, this can lead to what a staff in LS 1 observed, which is that
9 "the values and vision is very much dependent on the facilitator".
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20 It appears that for Singapore teachers who are used to a hierarchical structure, strategic
21 alignment to the school's vision, mission or strategic thrusts was important, without which
22 'empowerment' appeared to be less meaningful, and even frightening. As a PLT leader in HS1
23 commented regarding the importance of a shared vision to guide what PLTs should work
24 towards, even when or precisely because there is empowerment or autonomy: "because if
25 everybody wants to have the same direction and [yet] do things [in] different ways, the outcome
26 should still be obvious to everybody".
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37 *Leadership for PLC: Distributing Leadership*

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40 Hairon, Goh and Lin (2014) expressed concern that the hierarchical command and control
41 structure that exists within schools might pose a hindrance to PLC implementation in that
42 teachers might not feel sufficiently empowered to choose what they would like to work on and
43 learn. Although strategic alignment is important, tactical empowerment, the other side of the coin
44 (Ng, 2017), is equally important. Goh and Hairon (forthcoming) found that while Singapore
45 teachers generally respected and observed hierarchical relationships with their school leaders,
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3 they nevertheless preferred to be consulted when it came to making decisions in instructional
4 matters related to their subject areas.
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8 Our findings confirm that Singapore teachers want to be involved in making decisions on
9 the inquiry approach and focus, particularly at the PLT level, although they want the school to
10 provide the general direction for PLC. A PLT leader in HS 1 affirmed that “the subject area
11 would be the one we want the most say over. Like what kind of unit or package we want”. In HP
12 1, a PLT leader noted that when the school gave teachers the autonomy to choose the book they
13 want to read to “solve the [instructional] problem”, “because it’s what they need, so actually they
14 play a more active role.” On the other hand, if staff feel that heads and the Staff Developer are
15 holding the rein too tightly and “direct the teams what ...are some of the areas that they can
16 focus on” (LP 1), this impacts staff’s sense of ownership and motivation: “To some, they feel
17 that it is just an initiative that they have to do” (LP 1). The schools which were rated high
18 involved teachers in the PLTs in determining their focus areas, their inquiry methods, and how
19 long the team would like to spend on the focus area:
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35 "But I would say that the school has been supporting ..., it’s not like ‘oh, within one year
36 I have to finish one project’, sometimes it can be a one and half or two- year thing, so it’s
37 not like we feel like, compelled to just wrap it up." (HS 1)
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44 As the literature suggests, PLC requires leadership, specifically instructional leadership
45 which impacts student learning, to be distributed, particularly by enabling and developing
46 teacher leaders (Chen et al., 2016; Hairon et al., 2014; Wang, 2016). Our findings suggest that
47 the hierarchical command and control structure within Singapore schools may pose a hindrance
48 to the emergence of teacher leaders in PLTs. This was observed in LS 1 where the PLT leaders
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3 assigned were usually the Heads of Department or Subject Heads, based on the reasoning that if
4 the PLT leader is a teacher, the presence of the heads as a member might undermine the PLT
5 leader. While this might be true in some cases due to the large power distance, this selection
6 criteria constrains teacher leaders from emerging even if there are teachers who are ready to lead.
7
8 It was further observed that when PLTs are helmed by the heads, teachers might “just agree to
9 everything and nobody wants to step up and say this is not right and all that.” When the heads are
10 PLT leaders, teachers “always look to the heads for direction” and “tend to wash their hands off”
11 (LS 1). In LS 1, there are clues that this might be more than just a deployment issue, as the
12 **School Staff Developer** shared that there were times when the school assigned a teacher to lead a
13 PLT, but it did not work out as the head was also in the team. It would appear that there is a
14 “very ingrained culture”, which is very conscious of hierarchy.
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19 At the other end of the continuum, in LP 1 where teachers, particularly younger teachers,
20 are assigned to lead the PLTs, they shared that they sometimes found it difficult to lead,
21 especially when “they have more senior members in the team and things don’t get going because
22 they find it hard to control”. Even in HP 1, it was observed in that “Sometimes when leaders or
23 management's involvement in the PLT gets too deep into the inner core, it may hinder what the
24 teachers really want to learn and explore.” A PLT leader in HP 1 also observed that if “you are a
25 PLT leader who is a teacher,... sometimes whatever you say might get pushed down”. Thus,
26 there was some evidence that the hierarchical structure of schools hindered the nurturing of
27 teacher leaders within PLTs, and the learning of the teachers.
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32 Conversely, there was also evidence of schools exploiting the existing hierarchical
33 structure to nurture teacher leadership (Ho and Ng, 2012), by deploying mainly Lead Teachers,
34 Senior Teachers and potential Senior Teachers to lead the PLTs. The school’s strategic
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3 deployment of these teachers as PLT leaders serves two purpose. On the one hand, leading PLTs
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5 serve as “an avenue of growth” or “stretch assignment” for aspiring Senior Teachers (HS 1); On
6
7 the other hand, PLTs serve as a platform for appointed Senior and Lead Teachers to enact their
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9 expected instructional leadership role to “develop the pedagogical capability of the teaching
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11 force” (Ministry of Education, 2017).
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15 It is noteworthy that the issue about teachers being less likely to “step up” and contribute
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17 to the discussion when a head is the PLT leader was not raised in HS 1 where the majority of the
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19 PLT leaders were intentionally Lead Teachers, Senior Teachers or potential Senior Teachers.
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21 This could be due to the identity of Senior and Lead Teachers in Singapore whose main role is to
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23 mentor and develop other teachers. Thus, Senior and Lead Teachers might be perceived by their
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25 peers as less ‘threatening’ or less ‘official’, compared to the HODs and SHs who are usually
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27 reporting officers with appraisal duties. The findings suggest that tactical empowerment for PLC
28
29 is more effective when instructional leadership is distributed to teachers who can lead closer to
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31 the ground level (Hairon and Goh, 2017). It is insightful that in HS 1, one of the PLT leaders
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33 observed that teachers feel that teacher leaders are closer to the ground:
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39 And ... it’s not always the Key Personnel that is leading the PLT. So I mean, maybe
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41 there’s that sense of like we’re in it together, ...*it’s us as peers* coming in together to
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43 support that particular cohort of students who are struggling with a certain unit (italics is
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45 the author’s)
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3 *Leadership for PLC: Providing Structures but with Flexibility*
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6 The tight - loose approach was also observed in terms of providing a structured approach to
7 guide the PLTs in their inquiry process. In HP 1, there is a clear and structured approach,
8 mentioned positively by all who participated in the FGDs:
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14 Terms 1-2: “book study”; “teachers take a chapter” and “take turns to share [that
15 chapter]”
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19 Terms 2-3: continue to share reading and plan to trial chosen strategies in classrooms;
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22 Terms 3-4: “apply what we’ve learnt from the strategies” and collect data
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26 Term 1 of the following year: share success/failure during the “School Learning Day”
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29 Although there is a recommended structure, teachers in the PLTs have the “liberty” to
30 choose which book to study, which strategies to trial, and how to assess the effectiveness of the
31 chosen strategies. The HP 1 teachers appreciated this “structured professional learning among
32 teachers”, with positive comments on other structures that the school has put in place:
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39 “... it is always a learning process, *quite structured*. We will always start with the book
40 study first and then we will bring it back to the classroom to try out. Then we have to
41 collect data, present the data, that kind of stuff”
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46 “I think having a structure, *very clear cut structure* straight from the school leaders,
47 would be very good and I can see in my school *there is this learning culture among the*
48 *teachers because of all these structures. Having the timetabled time*, school leaders
49 paying attention to PLC, then there is a lead teacher who *meet us regularly*.” (italics are
50 by researchers)
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3 On the other hand, staff in LP 1 shared that “to be honest, we are quite lost” as there is no
4 structure for PLT work. Every year, there seemed to be a new approach for PLT work: initial
5 years were “more of sharing of pedagogy or use of resources”, then it became “teachers can
6 decide on an area of concern... and came up with a resource package”, then this “evolved again
7 to the heads telling us what they want us to do for the PLC”, then “something different again”.
8 Interestingly, Jeffers (2006), in his study of a different model of PLC in which participation was
9 voluntary, suggests that teachers still prefer to have some form of structure, with clear stages, for
10 their PLT work, which minimises the uncertainty they feel when there is a lack of structure. A
11 PLT leader in LS 1 similarly observed that “structure gives a sense of security to know what’s
12 ahead”.

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27 While HS 1 does not provide a term-based structure like HP 1, the staff’s perception is
28 that HS 1 has “scheduled [time] for everything... this is for discussing our lesson study... other
29 times, we know that this [time] is for department concerns, then we will discuss that. So I think
30 it’s quite clear to the teachers And we will go by dates and the weeks”. In addition, HS 1’s
31 use of lesson study as the “common [inquiry] tool” (with “flexibility” for staff to choose another
32 approach which some PLTs did) provides staff with a structured approach and a “common
33 language” to conduct their inquiry. New staff who joined the school are “briefed by the **School**
34 **Staff Developer** on the Lessons Study protocol. And it was also articulated in our staff
35 handbook”.

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48 On the other hand, LS 1 and LP 1 have no standard inquiry method. On the surface, this
49 empowers staff who may choose to do lesson study, action research or any other inquiry method.
50 However, the data suggests that staff feel lost, particularly since they feel they do not have the
51 required knowledge to select or enact the chosen inquiry method. A PLT leader in LP 1 shared
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3 that the teachers were not trained to do Action Research or Lesson Study, so the majority of
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5 PLTs chose to do Learning Circle because “we perceive that it is something that is easier to
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7 manage”. Similarly, in LS 1, staff surfaced that there was a lack of clarity “on what constitutes
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9 an inquiry method and the inquiry process”. It is questionable if autonomy without the required
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11 knowledge base and clear direction is true empowerment:
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15 "I realised that over the past years, it's always been because what is in [what's the trend],
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17 then you go for it. Because there was one point that Action Research was in, so we do it.
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19 Then there was one point, we did Lesson Study because the whole of the east zone [did
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21 Lesson Study]..." (LS 1)
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25 “we don't use a particular strategy and the focus for our PLC has been different over the
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27 years” (LP 1)
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31 In addition, the constant “switch” between inquiry methods gives the impression that the
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33 work is “very ad hoc” and lacking in continuity. The School Staff Developer in LS 1 also
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35 observed PLC discussions being “just all over the place; depending on who has a louder voice,
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37 who wants to contribute, then they will kind of lead the discussion.” He concluded that the use of
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39 some structure to guide PLT meetings might be useful.
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44 With regard to time structure, both HS 1 and HP 1 provide their teachers with at least one
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46 hour of protected time, within curriculum hours, each week to focus on their PLT work. Some
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48 staff highlighted this “plus time” in the survey, with one even indicating that “adequate time is
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50 allotted to members of each PLT to meet, discuss & act to fulfil the objectives of the project”
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52 (HS 1). Although protected time by itself is not sufficient to move PLC towards the
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54 institutionalising stage, since some schools categorised as medium and low also provide this
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3 weekly curriculum time, it is nevertheless an important enabler for PLC, as supported by the
4 literature (Wells and Feun, 2013; Huffman et al., 2016; Kruse and Louis, 2008).
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8 *Leadership for PLC: Feedback Loop within the Tight-Loose Combination*

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10 There is indication that the tight-loose, or centralised decentralization approach, needs to be
11 accompanied by opportunities for staff to provide feedback on the central approach, both
12 informally and formally through a structured platform. In HS 1, staff shared that a review of the
13 school's PLC occurs every year and involves all staff. Each year, there are two school-wide
14 meetings – mid-year and end-of-year - where staff review and give feedback on “teaching and
15 learning”, which includes PLT activities. The school's Steering Committee will “look at all the
16 feedback from the teachers and then ... set the direction [for the following year] at our Steering
17 Committee meeting and then this will be communicated, in December”. Staff confirmed that
18 their “voices are heard” by management. One evidence was the change of the school's inquiry
19 method two years ago from Action Research to Lesson Study, which was based on staff feedback
20 that “Action Research is too rigorous”.
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36 Similarly, in HP 1, there is a year-end review of the PLC structure, “to see whether this
37 whole approach will be carried out next year” and “is there any new area we want to look at?”
38 The school makes a conscious effort to “combine all these considerations together”. As a result
39 of staff's feedback, different levels were given the option to choose their own books for book
40 study. Another feedback from staff that led to a change in the PLC process was the shift in the
41 Learning Day from end of the year to the beginning of the following year, to give the PLTs more
42 time to prepare the sharing of their findings.
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Caveats

It would be misleading to give the impression that everything was perfect in the high band schools, or that the strategic alignment and tactical empowerment worked for all teachers. Even though the general feedback from staff in the high schools was positive, some issues were raised. One issue was that the strategic alignment to school or even department goals might not meet the needs of specific PLTs, teachers or students. That is, vision and values may not be shared by all (Watson, 2014). The culture in Singapore generally tends to be a pragmatic one (Hairon et al., 2014) and many Singapore teachers have an “instrumentalist view” of the purpose of education (Hairon and Dimmock, 2012, p. 405). Thus, teachers may prefer their PLTs to focus on solving pragmatic issues, or they might want to explore other areas that they are interested in:

“My PLT would like to work directly on assessment/plans/lessons especially with new syllabuses but often the school direction is very different and so we have to adjust what we are doing in order to fit the school direction but then it doesn't really serve our direct and immediate needs of dealing with new syllabuses.” (HS 1)

“Top-down approach may not address students’ needs, bottom up approach may be more effective in addressing students’ needs” (HP 1)

In general, across all twenty schools, teachers’ focus on addressing students’ learning needs came across much stronger than their own learning needs, which runs counter to the literature’s assumption that teachers participate in PLC to learn and grow professionally. Some teachers’ pragmatic focus is to build teaching and learning packages for their lessons. Teachers’ learning appeared to be incidental or more at the level of sharing strategies to improve their

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3 teaching practice, more at the retooling/remodelling rather than the revitalising/reimagining end of
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5 the professional development spectrum (Sachs, 2011).
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8 Second, although both high band schools provide protected curriculum time of one hour
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10 per week and this time is indicated as a strength, time is still mentioned as a constraint, across all
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12 five dimensions: “more time to meet”, “time to do peer observation”, “time to plan and readjust
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14 lesson” (HS 1), “time to think about how to apply what is learnt” (HS 1), “more time for
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16 reflection” (HS 1), “more time to think” (HP 1), “The time to read, digest the information is not
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18 enough” (HP 1), “More time could be given to analyse pupils' work” (HP 1), et, cetera. In
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20 summary, across all twenty schools, even in those that provided timetabled time, teachers still
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22 perceive there is insufficient time to plan, refine and review their lessons, to observe their peers’
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24 lessons, and to reflect on their learning. If the intent of PLC is to enable teacher’s learning and
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26 growth, we need to remember that learning takes time for adults, just as it does for students, and
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28 thus to manage our expectations of what PLC can achieve.
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33 A final caveat is that the study focused on PLC, which Singapore schools tend to view as
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35 a standalone ‘initiative’ operationalised through PLTs. However, within a school, there are
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37 various opportunities for teachers to learn and grow, and these platforms might not always be
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39 directly linked to the PLC. For example, HS 1 has the open classroom week, where teachers can
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41 drop by to learn from and-give feedback on their peers’ lessons while HP 1 has lesson
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43 observations in which teachers identify an area for improvement, and the objective of the lesson
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45 observation is “developmental” in nature. These lesson observations do not always relate to the
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47 work teachers do in their PLTs. As a PLT leader in HP 1 shared, when asked how teachers are
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49 developed in her school, “they [all the initiatives shared, including PLC] become one basket”,
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51 including informal sharing that “we cannot have a ruler to measure”.
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Conclusion

In the literature on PLC, there are several references to the importance of distributed leadership, particularly by involving teacher leaders (Wang, 2016; Sun-Keung Pang et al., 2016; Hairon et al., 2014). On the other hand, the role of the Principal in supporting PLC is also emphasised (Hipp and Huffman, 2002; Stoll et al., 2006). In Singapore schools, this seeming paradox is embraced through the centralised decentralisation approach (Ng, 2017), or the tight-loose approach (DuFour and Fullan, 2013; Lee and Lee, 2013), which is similar to broad and deep leadership (Hipp et al., 2008) and to parallel strategic and pedagogic leadership (Crowther et al., 2007). The role of senior management is to provide clarity and coherence in direction for PLC, while Heads of Department monitor, support and ensure alignment of the department-based PLTs to the school's strategic direction for PLC. Lead, Senior, or potential Senior Teachers are deployed to lead PLTs, in alignment to their role to mentor teachers to improve their teaching practice, supporting the notion of teachers as change agents (Wells and Feun, 2013; Wang, 2016). In Singapore, the distribution of leadership is mainly by design, through the creation of formal structures or official leadership positions (Spillane, 2006; Ho and Ng, 2012). This distribution is likely supported by the existence of a "zone of indifference" (Blackbourn and Wilkes, 1987; Wilkes and Love-Wilkes, 1989) in which teachers accept authority because it is legitimised through the institutional structure.

Increasingly, Singapore schools are appointing official or potential teacher leaders as PLT leaders. These PLT leaders are appointed based on their instructional expertise, which supports the argument that distributed leadership should be based on expertise rather than hierarchical authority (Copland, 2003; Edwards, 2012). Incidentally, in Wang's (2016) study of two senior high schools in China, the team leaders who were elected by their team members

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3 were award-winning Master teachers or dedicated experienced teachers; team leaders were
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5 deliberately not members of the school management team, because team leadership was seen as a
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7 facilitative leadership role rather than an administrative position. The context in Singapore is
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9 similar in that Lead and Senior Teachers are not part of the formal management team who have
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11 an appraisal role; their main role is to facilitate teachers' professional growth and learning.
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14 Vescio and colleagues (2008) indicated that a key element of a PLC that fosters changes
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16 in teaching culture is teacher authority. They define teacher authority as the ability of teachers to
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18 make decisions, for example in the processes of their learning communities. In line with the
19
20 decentralisation approach, teachers in our study generally have the autonomy to choose the
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22 PLT's area of focus and possibly the inquiry method. However, choice of inquiry method may be
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24 constrained by the teacher's knowledge to apply the inquiry method, suggesting that teacher
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26 autonomy, without the requisite knowledge base to make informed decisions, is arguably not
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28 truly empowering.
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33 With respect to structure, it would appear that Singapore teachers appreciate some form
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35 of structure to guide their inquiry process, similar to the feedback from a team leader in Wang
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37 (2016), who observed that "an explicit structure is important to get things in order". Even in an
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39 Irish school setting, where participation in a learning community was on a voluntary basis,
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41 teachers indicated they would have preferred "a more defined structure" (Jeffers, 2006, p 202),
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43 including a reflection "template" and "designated time" to reflect on their teaching. Time for
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45 teachers' professional development remains an issue (Jeffers, 2006), even when time is
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47 structured within normal curriculum time for teachers to participate in PLC. Time, as Stoll and
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49 colleagues emphasised (2006), is critical for any non-superficial learning.
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3 Finally, with respect to methodology, in utilising a mixed method approach, this study
4 addressed a limitation identified by Pang and colleagues (2016) in their study of PLCs. The
5 limitation was that they conducted a quantitative study but without qualitative follow up that
6 would have provided a richer illumination of the three kinds of communities identified.
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8 However, one limitation of this study is that in trying to achieve breadth through studying twenty
9 schools, the in depth understanding of each low and high school was limited to FGDs that
10 involved only selected staff members, and two additional interviews. There were missing details
11 that could not be verified by returning to the case sites. Another limitation of the study was that it
12 provides a snapshot in time, instead of the PLC's progression from initiation to implementation,
13 which would have provided an understanding of how some schools managed to progress to a
14 'higher' level of implementation than others. Considering that PLCs are fluid rather than fixed
15 entities (Stoll et al., 2006), it would be insightful to conduct a longitudinal study to examine the
16 evolution of practice, structures and processes as PLCs move from one stage to another (Vescio
17 et al., 2008).
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36 This study affirms the "paradox" of professional communities, which requires a fine
37 balancing act between meeting organisational and individual needs, between maintaining a
38 common organisational vision of meeting students' needs and supporting teachers' professional
39 autonomy to learn and improve their practice (Scribner et al., 2002). The study also affirms the
40 loose-tight dilemma identified by Dufour and Fullan (2013), and the need to find the appropriate
41 balance between providing a clear direction and enabling sufficient autonomy so that teachers
42 feel a sense of ownership for their own learning. It further affirms Dufour and Fullan's finding
43 that being tight includes providing people with the opportunity to provide feedback and
44 responding to concerns raised. In Singapore schools, the strategic alignment and tactical
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empowerment appears to support the development and sustaining of PLC. The way forward is to shift teachers' focus on their student learning to a simultaneous focus on their own learning, with the understanding that the two are intimately related.

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