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**Instructional Leadership in Teachers Leading Professional  
Learning Communities:  
An Asian Singapore Perspective**

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## **Abstract**

Teacher leadership has grown in currency within educational contexts that are becoming more complex and demanding. The growing interest in teacher leadership is also consistent with the growing interest in distributed leadership in education. This is because distributed leadership is now considered to be an appropriate response to the complexities inherent in the implementation of current education reforms. The notion of a solo leader leading the organization is no longer viable, and schools are increasingly cognizant that leadership (formal and informal) needs to be more distributed across the school organization. Teacher leadership has thus become an offshoot to the growing need for distributed leadership. Its importance is especially so in matters of instruction. Teacher leaders are well positioned to influence fellow teachers to impact on instructional improvements and innovations. In the Singapore context, the role of teacher leaders has been extended to team leaders in professional learning communities, who are usually teachers without senior management positions. In this paper, the instructional leadership roles of teacher leaders supporting professional learning communities are discussed using Rasch analysis of questionnaire data from 11 primary schools in Singapore.

## **Introduction**

Teacher leadership has grown in currency within educational contexts that are becoming more complex and demanding. The growing interest in teacher leadership is also consistent with the growing interest in distributed leadership in education. This is because distributed leadership is now considered to be an appropriate response to the complexities inherent in the implementation of current education reforms. The notion of a solo leader leading the organization is no longer viable, and schools are increasingly cognizant that leadership (formal and informal) needs to be more distributed across the school organization. Teacher leadership has thus become an offshoot to the growing need for distributed leadership. Its importance is especially so in matters of instruction. Teacher leaders are well positioned to influence fellow teachers to impact on instructional improvements and innovations. In the Singapore context, the role of teacher leaders has been extended to team leaders in professional learning



communities, who are usually teachers without senior management positions. In this paper, the instructional leadership roles of teacher leaders supporting professional learning communities are discussed using Rasch analysis of questionnaire data from 11 primary schools in Singapore.

### **Instructional Leadership in Teacher Leadership**

Teacher leadership can be defined as “the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement” (York-Barr & Duke, 2004, pp. 287-288). This definition is accompanied by an overarching conceptual framework on teacher leadership consisting of seven components: 1) characteristics of teacher leaders, 2) type of leadership work engaged in teacher leaders, 3) conditions that support the work of teacher leaders, 4) means by which teachers lead, 5) targets of their leadership influence, 6) intermediary outcomes of changes in teaching and learning practices, and 7) student learning. Other forms of framework have also been conceptualized in the attempt to capture the conceptual essence of teacher leadership in view of the lack of agreement on the definition and conceptualisation of the term in the last 20 years (Leonard, Petta & Porter, 2012).

Muijs and Harris (2003) framed teacher leadership as consisting of four aspects: 1) brokering role of teacher leaders to ensure that links within and across schools are in place and that opportunities for meaningful development among teachers are maximised, 2) participative leadership role of teacher leaders where they work collegially with other teachers to encourage the examination of instructional practices, 3) mediating role of teacher leaders where they become sources of instructional expertise and information, and 4) teacher leaders’ role in forging close relationships with individual teachers through mutual learning. Extending this conceptualisation, Harris (2005) missing reference proposed four aspects in the definition of teacher leadership: 1) creation of collegial norms, 2) opportunities to lead, 3) working as instructional leaders, and 4) re-culturing schools. Katzenmeyer and Moller (2011) considered teacher leadership comprising four aspects: 1) lead within and beyond the classroom, 2) identify



with and contribute to a community of teacher learners and leaders, 3) influence others toward improved educational practice, and 4) accept responsibility for achieving the outcomes of that leadership. Finally, based on an ethnographic case study of professional learning communities Hairon, Goh & Chua (2015) attempted to narrow down the key aspects or dimensions of teacher leadership into three aspects comprising: 1) building collegial and collaborative relations, 2) promote teacher learning and development, and 3) enabling change in teachers' teaching practice. They have also highlighted the importance of intentional influence in the enactment of teacher leadership practices culminating in the conceptualization of teacher leadership as essentially the "enactment of influence by teachers, individually or collectively, on school stakeholders but primarily fellow teachers towards shared goals pertaining to improvements in teaching and learning" (p. 178).

Notwithstanding the substantive uniqueness of the concept, the practices of teacher leadership as described above can also overlap with or be subsumed under the concept of instructional leadership. Instructional leadership, which has been expounded by many scholars but especially by the work of Philip Hallinger (e.g., Hallinger & Murphy, 1985, 1987, 1988; Hallinger, 2005, 2010) has been conceptualized primarily within the domain or realm of the school principal. Notwithstanding the absence of an explicit definition of the term (King, 2002), there is a general view amongst scholars that instructional leadership entails leaders – albeit primarily school principals – paying attention to teachers' behaviors as they engage in activities directly influencing the learning and growth of students (Duke, 1987; Smith & Andrews, 1989; Davidson, 1992; Leithwood & Duke, 1998; Leithwood, Jantzi & Steinbach, 1999 Marks & Printy, 2003; Marzano, Waters & McNulty, 2005; O'Donnell & White, 2005). Hallinger and his colleagues (e.g., Hallinger & McCary, 1990; Hallinger & Murphy, 1985) developed a framework consisting of three broad categories of leadership practice: 1) defining the school mission, 2) managing the instructional program, and 3) promoting the school climate. Building on these ideas, Hallinger and Heck (1997, pp.162-163) explored the relationship between leadership and student achievement, and developed a three-fold classification of principal effects of instructional leadership:



- Direct effects – where the principal’s action influence school outcomes.
- Mediated effects – where principal actions affect outcomes indirectly through other variables (such as teacher commitment, instructional practices or school culture).
- Reciprocal effects – where the principal affects teachers and teachers affect the principal and through these processes outcomes are affected.

Of the three effects model, Hallinger and Heck (1997) concluded that the mediated effects yielded more consistent findings stating that principals exercise “a measurable, though indirect effect on school effectiveness and pupil achievement” (p. 186). This is consistent with Ylimaki’s (2007) observation that much of the literature on direct instructional leadership approaches were in the 1980s, but more recent literature advises principals to share instructional leadership in ways that build capacity for school transformation, and ultimately, improvement in student learning. The indirect instructional leadership practices by school principals only mean that the more direct instructional leadership practices are passed on to other school staff such as middle leaders (e.g., department heads) and teacher leaders (e.g., senior teachers). The passing on or distribution of direct instructional leadership practices to middle or teacher leaders is understandable taking into consideration the growing demands placed on schools and hence augmenting the need for increasing leadership capacity – quantitatively and qualitatively speaking. Furthermore, the increasing demand for greater ‘joined-up’ or ‘network’ regime of governance in response to a societal culture with weakening categories and classifications within loosening spatial and temporal codes (Hartley, 2007, 2009), further demands schools to distribute leadership across the school organization. Teacher leadership can thus be said to be a product of the interaction between instructional leadership and distributed leadership.

In the Singapore education context with student population of minimally 1,500 on average for a typical school, instructional leadership practices are dispersed to different groups of staff members within the school organization. Notwithstanding the minor variations between schools, the instructional leadership tasks that principals primarily engage include: defining and



communicating the vision and goals of the school curriculum to all stakeholders in view of the curriculum policy initiatives by the education ministry; guide and monitor vice-principals and middle leaders on curriculum work; developing vice-principal on curriculum work; and monitoring student learning outcomes. The instructional leadership tasks that vice-principals primarily engage include: communicating the vision and goals of the school curriculum to all stakeholders; guide and monitor middle leaders on curriculum work; developing middle leaders on curriculum work; and monitoring student learning outcomes. The instructional leadership tasks that middle leaders primarily engage include: communicating the vision and goals of the school curriculum to teachers; plan, design, implement and review the curriculum; guide and monitor teachers' work on the curriculum development and delivery; providing timely information and feedback to vice-principals and principals on curriculum matters; develop teachers in curriculum development; and monitoring student learning outcomes.

Besides these three levels of leadership supporting instruction, the growth of teacher leaders which started in the early 2000s has built momentum resulting in the introduction of both formal and informal teacher leadership positions such as Senior Teachers, Lead Teachers, Subject Reps, Level Coordinators and Professional Learning Communities (PLC) Team Leaders. The Senior Teacher and Lead Teacher positions were introduced as part of a revamp made to the career structure of the education service. Teachers entering the teaching force will eventually have to decide one of three career tracks which suit them best – Teaching, Leadership or Specialist Tracks. In the Leadership Track, an educator will be given opportunities to be groomed as middle leaders such as Subject Heads, Level Heads, and Heads of Department en route to vice-principal and principal positions. In my view, middle leaders are not considered teacher leaders because their primary role and identity is on the side of administration and management, albeit with the primary responsibility over the curriculum in their respect subject areas. In the Specialist Track, an educator can choose to specialize in a specific educational domain such as psychology, curriculum, training and assessment, and work at the headquarters' level. In the Teaching Track, an educator will hone in their skills of teaching, and will be able to progress to become Senior Teachers followed by Lead Teachers who reside in schools and whose primary role is to enhance the quality of teachers and teaching within their respective schools. They can then progress to become Master Teachers



followed by Principle Master Teachers who reside outside schools and whose role are to enhance the quality of teachers and teaching at the national or system level. The primary role of Senior Teachers are to mentor beginning teachers and teachers with teaching issues, and support the school's overall effort at developing teachers. The role of Lead Teachers includes that of Senior Teachers plus leading and supporting teacher development within a school cluster (or district). The Senior Teachers and Lead Teachers usually coordinate their work with the School Staff Developers (SSDs) in their respective schools. The SSDs, however, subsume within the Leadership Track (i.e., a management position) and is part of the Senior Management Team of the school, albeit without the role of appraisal. The SSDs' primary role is to oversee the overall schools' training and development needs and goals. The Master Teacher's role focus on developing the curriculum in specific subject areas (e.g., Math, Science) and developing the competency of teachers teaching in their specific subject areas. The Principle Master Teacher's role include the Master Teachers' role plus mentoring and grooming Senior, Lead and Master Teachers to grow as teacher leaders. These leadership positions within the Teaching Track are formal in nature.

Subject Reps are, however, considered informal leadership positions held by teachers with the primary focus on coordinating the implementation and review of the curriculum within specific subject areas (e.g., Math, Science) in their respective schools. They work directly with the middle leaders in their respective subject areas in assisting the coordination of the implementation and review of the curriculum. Level Reps are informal leadership positions held by teachers with the primary focus on coordinating the implementation and review of the curriculum within specific grade levels (e.g., Grade 1) in their respective schools. They too work directly with the middle leaders and Subject Reps to ensure that the curriculum is implemented and reviewed according to the school goals.

Finally, there is a growing teacher leadership role that emerged out of the PLC initiative which started in 2009. Even though the spirit of collaborative teacher learning began to emerge in 2000, the school-wide and system-wide approach to collaborative teacher learning took off when the Ministry of Education (MOE) decides to invest in PLCs to encourage school-based teacher-directed learning in response to the increasing need for school-based curriculum innovation which culminated in 2005 with the introduction of the "Teach Less, Learn More" policy



initiative. Teachers are now given one-hour curriculum time per week to participate in collective or community-based professional dialogue with similar grade level students or teaching subjects. PLC Team Leaders are responsible in leading collaborative teacher learning to enhance teaching practice en route to enhancing student learning using learning tools such as action research and lesson study. The ideal is the development of a learning culture for both teachers and students.

In a nutshell the distributed-ness of instructional leadership practices in Singapore schools can be said to be hierarchical. The division of labour on instructional leadership practices is based on hierarchy insofar as they are cascaded down one to another to ensure alignment, maximize monitoring, and enhance specialization with the hope of achieving efficient use of resource, time and man hours. The dispersion of instructional leadership in a permeating way within the school context seems to attest to King's (2002) proposition that – “there is no litmus test for the presence of instructional leadership, nor is there a definitive list of its characteristics of behaviours. In places where instructional leadership truly exists, it becomes an integral, almost invisible, part of how a school community works, lives, and learns together” (p. 63).

While investigating the specific leadership practices within the multiple leadership contexts within schools is a worthwhile and ideal pursuit, the findings reported in this paper serves to only highlight the instructional leadership practices of teacher leaders in PLC contexts. While PLCs have often been proposed to have impact on teaching en route to student learning, the specificities of it are seldom uncovered. This perhaps explains King's (2002) observation and assertion that instructional leadership enactments are almost invisible. However, I argue that this could be the result of insufficient attention to the specific enactments of instructional leadership at different levels of the school organization. The study thus serves to highlight specific instructional leadership practices of teacher leaders – specifically, at in PLC contexts, which have potential to impact teaching and learning.





### **Method**

The findings from the study were drawn from Rasch analysis of survey questionnaire data from a purposive sampling group of 56 Singapore teachers from 11 primary schools using Winstep version 3.53. The questionnaire contains three instruments each comprising eight items broadly measuring the construct on teacher leadership practices supporting participation in PLCs. The instruments were constructed based on the findings of a local qualitative study by Hairon et al. (2015). The three instruments are to measure the three dimensions or sub-constructs of teacher leadership consisting of (1) building collegial and collaborative relations, (2) promoting teacher learning and development, and (3) enabling change in teaching practice. Teacher respondents were asked to rate their respective schools' PLC teacher leaders' practices supporting participation in PLCs using a 5-point Likert scale. Through Rasch analysis, these rating scale responses (or raw scores) were converted to linear units of measurements, known as logits. Linear units of measurements are considered to be closer to the 'true' values of the construct to be measured, and thus diminishes spurious correlations when used in statistical analyses. The Rasch model is a probabilistic model that does extremely well at 'constructing linearity out of ordinality and at aiding the identification of the core construct inside a fog of collinearity' (Schumacker & Linacre, 1996, p. 470). Two parameters were used in the Rasch analysis of the construct on teacher leadership practices supporting participation in PLCs – person's ability and item's difficulty. The former refers to the strength of respondents' perceptions, and the latter the level of difficulty in agreeing to individual items on a common interval scale. In this study, Rasch analysis was separately conducted on the questionnaire data pertaining to the three dimensions of teacher leadership practices supporting PLC participations, and the Wright Map (or Person-Item Map) was used in analyzing the perceived difficulties that teacher leaders faced in leading participation in PLCs.

### **Findings**

The Rasch analysis for each dimension produces three Wright Maps. The proceeding segments summarized the findings for each of Rasch analysis.

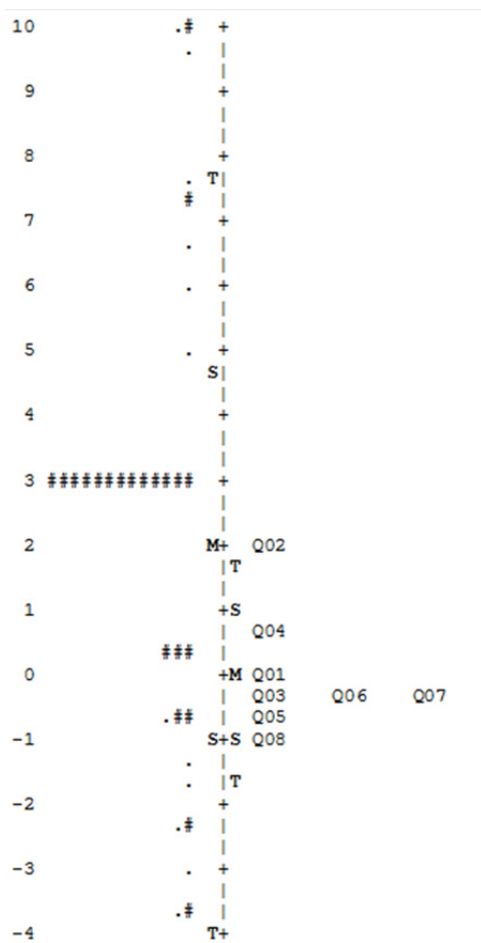


### ***Building collegial and collaborative relations***

Based on the Wright Map (Figure 1), the mean person's ability, or specifically, the strength of perception on teacher leadership in building collegial and collaborative relations is 1.88 (SD 2.94) logits away from the mean item's difficulty which is set at 0. This suggests that teacher respondents generally are highly agreeable that their teacher leaders build collegial and collaborative relations in PLCs. Furthermore, the mean person's ability is slightly more than 2 standard deviations from the mean item's difficulty suggesting that the cohort sample for this study generally finds the items very easy to agree to. In total, 36 out of 56 teacher respondents or two thirds of the teacher respondents (64.3%) found all 8 items easy to agree to. However, about a third of teacher respondents (20 out of 56) found difficulty in agreeing to Items 4 and 2. Both of these items suggest the difficulty teacher leaders faced in getting every member to contribute to discussions without imposing on members. With regard to Item 2, although two thirds of teacher respondents consider that teacher leaders do not impose members to speak during discussions, this poses the problem of non-participation in discussions. Conversely, although one third of teacher respondents consider that teacher leaders do impose members to speak up during discussions, this poses the problem of forced participation in discussion. Both ways, it attests to the difficulty of teacher leaders in getting every member to contribute to discussions without coercion.



Figure 1: Wright Map (Building Collegial and Collaborative Relations)



Logits

'#' = 2 persons, M = Mean, S = 1 Standard Deviation, T = 2 Standard Deviation



In terms of items analysis, the table below summarizes the degree of difficulty in agreement by respondents in descending order (Table 1):

<b>Logit</b>	<b>Qn</b>	<b>Item</b>
	<b>No.</b>	
1.97	2	My facilitator does not impose on members to speak up during discussions.
0.51	4	My facilitator makes sure that every member contributes to the discussion.
-0.01	1	My facilitator provides clear direction to the group.
-0.19	6	My facilitator encourages members to have common values while working together in the group.
-0.19	7	My facilitator helps members complement one another's strengths.
-0.37	3	My facilitator ensures the well-being of individual group members.
-0.76	5	My facilitator encourages members to reach agreement on decisions.
-0.96	8	My facilitator ensures that the PLC environment is non-threatening to new members.

The item's difficulty analysis suggests that building collegial relations in PLCs in relation to all other items is the easiest task in teacher leadership as evidenced from Items 8, 5 and 3 insofar as teacher leaders are able to support new members joining in, help members reach agreement on decisions, and safeguard the well-being of individual members. The analysis further suggests that supporting how members work collaboratively relatively easy in teacher leadership in relation to the rest of the items in terms of complementing one another's strength and encouraging common values as evidenced from Items 7 and 6. However, the analysis suggests that providing clear direction to groups as



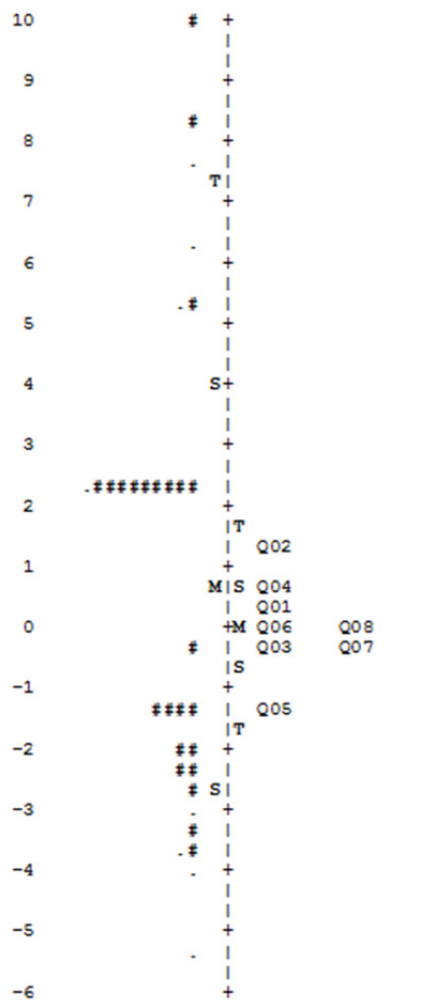
being neither a strength nor weakness as evidenced from Item 1. The analysis also suggests optimizing individual members to contribute to group discussions as relatively difficult in teacher leadership.

### ***Promoting teacher learning and development***

Based on the Wright Map (Figure 2), the mean person's ability, or specifically, the strength of perception on teacher leadership in promoting teacher learning and development is .54 (SD 3.37) logits away from the mean item's difficulty which is set at 0. This suggests that teacher respondents are generally agreeable that their teacher leaders promote teacher learning and development in PLCs. The mean person's ability is about 1 standard deviation from the mean item's difficulty suggesting that the cohort sample for this study generally finds the items easy to agree to. On the whole, 28 out of 56 teacher respondents (50.0%) found all 8 items easy to agree to, 18 out of 56 or about a third (32.1%) of teacher respondents found Items 2, 4, 6 and 8 difficult to agree to, and 18 out of 56 or about another third (32.3%) of teacher respondents found all items difficult to agree to.



Figure 2: Wright Map (Promoting Teacher Learning and Development)



Logits

'#' = 2 persons, M = Mean, S = 1 Standard Deviation, T = 2 Standard Deviation



In terms of items analysis, the table below summarizes the degree of difficulty in agreement by respondents in descending order (Table 2):

Logit	Qn No.	Item
1.38	2	My facilitator helps members see how theories on teaching (e.g., CPA) cut across different topics.
.71	4	My facilitator makes use of students' results for members to analyse.
.20	1	My facilitator connects members' day-to-day teaching experiences with PLC discussions.
.09	8	My facilitator asks questions to generate new ideas about teaching.
-.14	6	My facilitator encourages members to demonstrate teaching strategies to one another.
-.37	7	My facilitator poses questions to help members describe how students learn.
-.50	3	My facilitator encourages more experienced teachers to share instructional practices with others.
-1.36	5	My facilitator promotes the sharing of teaching and learning materials with members

The item's difficulty analysis suggests that promoting sharing of teaching and learning materials with PLC members in teacher leadership as the easiest task. The analysis also suggests that the task of helping PLC members see how teaching theories can cut across different topics is most difficult in teacher leadership, followed by making use of students' results for members to analyze and connecting members' day-to-day teaching experiences with PLC discussions. The other two teacher leadership practices that are considered relatively easy to



enact are encouraging more experienced teachers to share instructional practices with others and posing questions to help members describe how students learn.

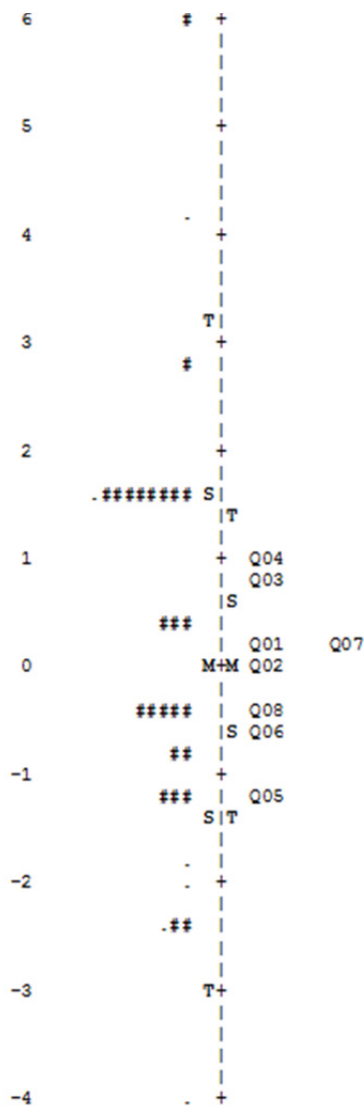
***Enabling change in teachers' teaching practice***

Based on the Wright Map (Figure 3), the mean person's ability, or specifically, the strength of perception on teacher leadership in building collegial and collaborative relations is 0.08 (SD 1.57) logits away from the mean item's difficulty which is set at 0. This suggests that teacher respondents generally are slightly agreeable that their teacher leaders have enabled change in members' teaching practice. In total, 22 out of 56 teacher respondents (39.3%) of the teacher respondents found all 8 items easy to agree to, while 6 out of 56 teacher respondents (10.7%) found difficulty in agreeing to all items.





Figure 3: Wright Map (Enabling change in teachers' teaching practice)



Logits

'#' = 2 persons, M = Mean, S = 1 Standard Deviation, T = 2 Standard Deviation



In terms of items analysis, the table below summarizes the degree of difficulty in agreement by respondents in descending order (Table 3):

<b>Logit</b>	<b>Qn</b>	<b>Item</b>
	<b>No.</b>	
.92	4	My facilitator encourages a focused theory of teaching (e.g., CPA) to be adopted by members.
.72	3	My facilitator shows how instructional practices are transferrable across topics.
.28	1	My facilitator summarises group discussions on teaching for members to consider applying in their respective classrooms.
.28	7	My facilitator expects members to try out instructional practices generated from PLC discussions.
.04	2	My facilitator suggests instructional practices for members to use in class.
-.62	6	My facilitator urges members to share teaching and learning resources during PLC discussions.
-.32	8	My facilitator urges members to share their effective instructional practices in PLC discussions.
-1.30	5	My facilitator encourages members to share observations made in their classroom teaching during PLC discussions.

The item's difficulty analysis suggests that encouraging members to share observations made in their classroom teaching during PLC discussions is the easiest teacher leadership task, while the encouraging a focused theory of teaching to be adopted by PLC members as the most difficult, followed by showing how instructional practices are transferrable across topics. The item's difficulty analysis also shows three clustering of tasks. In ascending order of difficulty: (1) sharing of knowledge on teaching as evidenced in Items 5, 8, and 6,



- (2) applying shared knowledge on teaching as evidenced in Items 1, 7 and 2, and
- (3) transferring knowledge on teaching in different context as evidenced in Items 3 and 4.

### **Discussion**

The findings from the study highlight that teacher leaders' practices – albeit in PLC contexts, are essentially instructional leadership practices. In addition, the findings highlight a spread of specific instructional leadership practices that can potentially impact on teaching learning through the building of collegial and collaborative relations, promoting teacher learning and development, and enabling change in teachers' teaching practice. Furthermore, the findings surfaced a spread of specific instructional leadership practices that vary according to difficulty. From the Rasch analyses, enabling teachers' teaching practice is the hardest instructional leadership task, followed by promoting teacher learning and development, and building collegial and collaborative relations. Conversely speaking, building collegial and collaborative relations is the easiest instructional leadership task. The order of difficulty is understandable for three reasons. First, teacher leaders' role is substantively informal insofar as they are considered as equals amongst colleagues, and are not considered higher than their colleagues in the formal organizational structure. Hence, this equality of status makes the task of building collegial and collaborative relations easy. However, this equality of status also makes the task of enabling change in teachers' teaching practice difficult. Equal status in the context of the Singapore teaching fraternity speaks of trust among colleagues in matters of classroom teaching. In other words, to suggest change in another colleague's teaching practice means a questioning on his or her teaching ability and practice. Second, classroom teaching is still considered a private domain consistent with the generic norm of respecting the autonomy of teachers in their respective classrooms. Hence, teacher leaders will have greater resistance in enabling change in teachers' teaching practice. This would also suggest that teacher leaders' attempt at enabling change in teachers' teaching practice needs to be done more indirectly. Using the Rasch analysis for this aspect or dimension, teacher leaders should optimize the three specific instructional leadership



practices – that is, to share 1) teaching and learning resources, 2) sharing effective instructional practices, and 3) observations made in teachers' teaching. However, teacher leaders could also learn to develop skills in encouraging the use of effective teaching practices shared by others in their respective classrooms. Third, although teacher leaders may find building collegial and collaborative relations something natural, they may find promoting teacher learning and development less natural. This explains why the instructional leadership practice of promoting teacher learning and development less easier or more difficult than building collegial and collaborative relations.

In terms of items' analysis, the findings suggest that teacher leaders – specifically in PLC contexts, can develop specific instructional leadership practices in a progressive manner. For building collegial and collaborative relations, teacher leaders can progressively learn to enact the following instructional leadership practices:

- Building trusting relationships.
- Supporting consensus decision making.
- Protecting the well-being of individuals.
- Complementing individuals' strengths.
- Promoting common values.
- Providing clear direction.
- Encouraging contributions by individuals.
- Not imposing individuals to speak up.

The above order of difficulty in terms of building collegial and collaborative relations suggests that building strong relationships between PLC members supports the synergy and complementarity of individual members' uniqueness, and development of common goals and values, which are preconditions to support members' contribution to PLC discussions.

For promoting teacher learning and development, teacher leaders can progressively learn to enact the following instructional leadership practices:

- Sharing of teaching and learning materials.
- Encouraging experienced teachers to share instructional practices.
- Posing questions to help individuals describe how students learn.



- Encouraging individuals to demonstrate teaching strategies.
- Asking questions to generate new ideas on teaching.
- Connecting PLC discussions with daily classroom teaching.
- Using students' results for analysis.
- Helping individuals see teaching theories can cut across different topics.

The above order of difficulty in terms of promoting teacher learning and development suggests that the sharing of teaching and learning materials is a good initial start to encourage teacher learning but may not be the most significant to bring about teacher learning. Sharing needs to progress to getting members show teaching and learning through questions and demonstrations. The next task is to encourage members to generate ideas on teaching, connect learning in PLCs to classroom teaching, and using students' results for members to analyze. The final most difficult task is for members to see the transferability of teaching theories across different topics.

For enabling teachers' teaching practice, teacher leaders can progressively learn to enact the following instructional leadership practices:

- Encouraging individuals to share observations on their teaching.
- Encouraging individuals to share effective instructional practices.
- Encouraging individuals to share teaching and learning resources.
- Suggesting instructional practices for members to be used by others.
- Urging individuals to try out instructional practices generated from PLC discussions.
- Summarizing group discussions on teaching for others to consider using.
- Showing how instructional practices can be transferred across topics.
- Encouraging the adoption of a focused theory of teaching.
- The above order of difficulty in terms of enabling teachers' teaching practice suggests that the sharing of teaching and learning is a good initial start to encourage teacher learning but may not be the most significant to bring about change in teachers' teaching practice. Once this is established, teacher leaders should then move on to apply what has been shared by others, followed by the application of shared ideas on teaching and learning across different topics.



### **Conclusion**

The findings from the study have shown that practices of teacher leaders – albeit within PLC contexts, are substantively instructional leadership in essence. These instructional leadership practices are both considered indirect and direct. For the former, teacher leaders build collegial and collaborative relations so as to support teachers’ learning and development which will indirectly impact on teachers’ teaching practices en route to student learning. For the latter, teacher leaders enable change in teaching practices in the classrooms en route to student learning. However, the latter is done with greater difficulty in relation to building collegial and collaborative relations and promoting teacher learning and development. Nevertheless, this does not suggest that teacher leaders should not aspire to enable positive change in their colleagues’ classroom teaching. Rather, teacher leaders should build their capacity and competency to enact instructional leadership practices that can effect or impact directly on classroom teaching practices. The study also reveals a spread of specific instructional leadership practices or tasks which are progressive in terms of difficulty, and thus, the specific competency that needs to be developed. Lastly, the findings from the study affirm the importance of teacher leadership resulting from the interactions between distributed leadership and instructional leadership. Schools and educational systems that aspire to make progressive significant improvements in school outcomes within current times need to embrace and apply distributed leadership on instructional matters, and invest in the development of teacher leaders.



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