
Rich Opportunities to Learn and Challenges to Apply Learning in the Classroom --- Examining Professional Development Activities in Singapore

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Abstract: This paper examines the educational reforms that have been implemented in Singapore schools in the last nine years and the corresponding range of professional development opportunities that have been made available to teachers. The reforms are a response to the economic, technological and social challenges faced by Singapore in an age of rapid globalization and information technology. The success of educational reform efforts is determined by teachers who play a very important role in implementing the reforms. Reforms pose great challenges for teachers and the schools in which they work. Since the launch of Thinking Schools, Learning Nation (TSLN) in 1997, there has been the introduction of many initiatives and programmes in primary and secondary schools, and junior colleges in Singapore. To help teachers implement the educational reforms, they have been provided with ample professional development opportunities to equip them with the relevant knowledge and skills. Professional development is regarded as the process by which teachers improve their skills and competencies in order to produce desirable educational outcomes for their students. In this paper, we report on the project that we undertook to elicit information on the professional development opportunities teachers in Singapore have; the teachers' responses to professional development and the challenges faced in professional development.

Introduction

Faced with the economic recession of 1986-87, the Singapore government had to re-examine many of its economic and educational policies and started pushing for a broad-based education system to promote creativity and flexibility in schools. With the rapid globalization of the world economy and with information technology (IT) changing dramatically the way people communicate and work, school leavers of the future would have a totally different set of requirements to meet as compared to school leavers in the past.

In response to the ever changing global climate, Singapore has been shifting from an industrial economy to a knowledge-based economy. School leavers are expected to not only be able to work productively and efficiently, and be literate and numerate, but they are also expected to be IT-enabled; capable of being creative and innovative; not afraid to take risks; be a continuing, self-directed learner; be able to work in groups; and be loyal and committed to Singapore.

In view of these economic and social realities, the Singapore education system has been under pressure to develop students who are capable of thinking critically and creatively, and be able to access, evaluate and use knowledge, rather than just knowing it. In his opening

speech at the Seventh International Conference on Thinking in 1997, Mr Goh Chok Tong, then Singapore’s Prime Minister launched the vision of "Thinking Schools and Learning Nation" (TSLN). Central to this vision is that schools must develop future generations of thinking and committed citizens, capable of making good decisions to keep Singapore vibrant and successful in the future. It aimed at the maximal development and harnessing of talents and abilities of students and teachers. 1997 was, therefore, the start of a new period in Singapore’s education system – ability-driven education.

Developing from the TSLN framework of the 1990s, the MOE promoted Innovation and Enterprise (I&E) in schools in 2004. I & E aimed at nurturing a spirit of innovation and enterprise (I&E) among students so that Singapore would eventually be prepared for an innovation-driven future.

At the heart of I & E is the need for teachers to model the I&E spirit, and therefore to adopt innovative pedagogies. Teach Less, Learn More (TLLM) was introduced in 2005 to encourage schools and classroom teachers to examine their instructional processes. It aims at promoting effective teaching so that learners can be engaged and be prepared for life beyond the school, rather than to teach and practise more for tests and the examinations.

The implementation of any educational reform is highly dependent on the schools (ie school leaders and teachers) who implement the changes. The educational movements of TSLN, I&E, and TLLM have seen teachers gradually taking on a key role in educational reform – from implementers of a given curriculum to designers of curriculum in changing how students learn and therefore the education outcomes (see Figure 1 for the relationship between TSLN, I&E and TLLM). Teachers have been given a new level of recognition in the Singapore education system. Teacher education and professional development have become top priority.

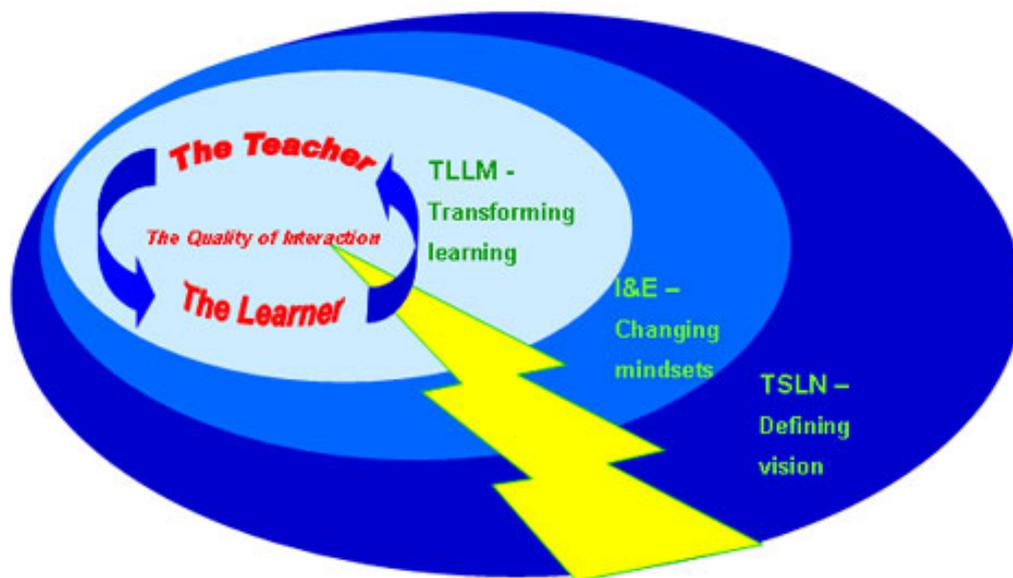


Figure 1: Relationship between TSLN, I&E, and TLLM
 (Source: MOE website, www.moe.edu.sg)

The job of the teacher has been redefined in the years following TSLN. The teacher has had to relinquish the age-old role of being the fountain of all knowledge to taking on a more

multi-faceted role of instructor, manager, facilitator, counsellor, entrepreneur, and researcher all combined into one. The role of the principal has also been redefined. With schools being regarded as business corporations, principals began to be regarded as chief executive officers, and parents and students as the clients. School leaders have also been given the autonomy to decide on school-based issues and to exercise their choice.

It is in the light of the above educational reforms that we examine the professional development opportunities that teachers have been receiving since the launch of TSLN in 1997. In the following section, we lay out the details of how such a priority is implemented for each major initiative in the sequence illustrated in Figure 1 above.

Professional Development Opportunities for Teachers from 1997 to 2006

School personnel consisting of teachers and school leaders have had ample opportunities to engage in professional development in the years of TSLN, I&E and TLLM. There has been a wide variety of courses for teachers to select from and to be nominated to attend. This is borne out in the interviews that we conducted with the teachers, heads of department (HODs), and school leaders (vice-principals and principals) at the primary, secondary and pre-university levels; and providers of professional development like the MOE and the National Institute of Education (NIE).

Thinking Schools, Learning Nation (TSLN)

1997 can be regarded as the watershed year for Singapore's education system and for its teachers' professional development. The TSLN initiatives created abundant training and learning opportunities for teachers. It also kick-started numerous professional development opportunities for teachers in the years to come.

There were three major initiatives in TSLN – emphasis on critical and creative thinking through the Thinking Programme, use of IT, and citizenship efforts through National Education (NE). First, the Thinking Programme which focused on the explicit teaching of thinking skills was implemented at the secondary level to develop in students critical and creative thinking skills. At the same time, thinking skills were infused into the curricula of the various subjects at the primary and pre-university levels. Project Work was also introduced into the primary, secondary and junior college school curriculum so that students can apply the thinking skills they acquired from the explicit and infusion lessons.

Second, NE aimed at inculcating in students a sense of belonging and social cohesion in multi-ethnic Singapore. A range of curricular and co-curricular programmes and activities were implemented at the school level to enhance students' feeling of rootedness to the country. The Community Involvement Programme (CIP) was also introduced in schools in the 1990's. It sought to develop in students a sense of belonging to the community and to encourage them to contribute to a worthy cause in their community.

Third, the IT Masterplan set out the national standards for IT infrastructure by the year 2002 as a guideline for schools. Students were provided with access to IT in all learning areas of the school, such as classrooms, libraries, special rooms and computer laboratories. This was to allow more convenient and effective integration of IT throughout the curriculum. The target was for students to spend up to 30% of curriculum time using IT. To achieve this, a student-computer ratio of 2:1 was targeted for every school by 2002. The computer was expected to be an essential teaching tool of the teacher. Teachers were given ready and frequent access to computers both during and after curriculum hours so that they would be

able to access information and learning resources, prepare lesson plans, deliver their lessons, assign work and respond to their students' scripts and projects, communicate with their peers and supervisors, and perform administrative tasks.

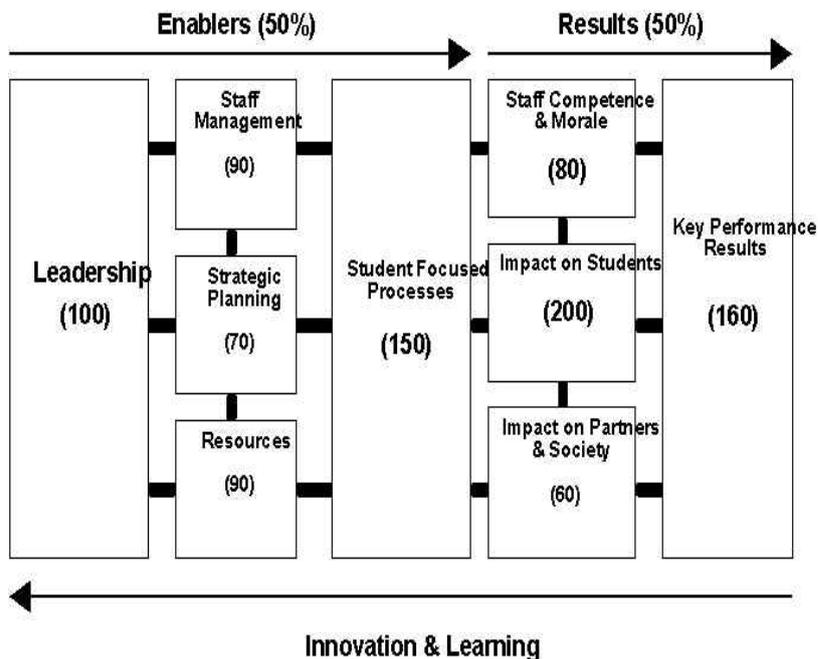
Although these initiatives were at first implemented as discrete initiatives, they were soon infused into the various subject syllabuses when revisions were made to the subject syllabuses. The concept of an 'Education Buffet' was created in the TSLN years as schools were given the flexibility and choice of deciding how to prioritise the implementation of the various initiatives based on the needs and abilities of the students and teachers.

At the official launch of the Teachers' Network on 30 April 1998, the then Minister for Education and Second Minister for Defence, Rear Admiral Teo Chee Hean said that "the TSLN initiatives would only succeed if we regard education as change with teachers leading the way as catalysts of change. As catalysts of change, teachers need to continually develop themselves. Every teacher needs to reflect on what he or she is doing, seek new insights and practices, and in the process grow as a person and as a professional. The Teachers' Network provides a platform for this growth." Principals were to encourage their teachers to participate in the professional dialogue and sharing activities of the Teachers' Network. In this way their teachers would be exposed to alternative methods and views from teachers in other schools, in other institutions and in other countries. Learning Circles were facilitated by staff in the Teachers' Network for teachers who want to better understand educational issues and concerns of common interest, or teachers who are keen to further develop an idea or teaching strategy. The outcomes of the Learning Circles were shared with other teachers either as publications, on the Teachers' Network Homepage, through the series of focused exhibitions, or through workshops and seminars. The exhibitions, workshops and seminars also showcased good work done in the schools and new commercial products in the market.

Hence, teachers of all subject disciplines experienced a wide and varied range of learning opportunities. A slew of training courses and workshops were organized by the MOE and the NIE to equip the teachers with the knowledge and skills to teach thinking skills, national education and Information Technology. Every teacher was given a yearly entitlement of 100 hours of time to attend training courses. The rich learning opportunities for teachers indicates the importance MOE places in building up teachers as a quality professional force up-to-date in skills and knowledge. Teachers were expected to keep up with professional developments in their fields, and apply educational theories and practices to the classroom.

In 1999, two years following the launch of TSLN in 1997, the School Excellence Model (SEM), which was adapted from various quality models used by business organizations, was implemented as a framework for self-assessment by schools (see the diagram below). Nine criteria are examined in the SEM, and they fall broadly into two categories: Enablers and Results, each weighing 50%. Enablers are concerned with processes - how the school is led and managed, how resources are deployed; while Results look at outcomes – key performance results, staff competence and morale, impact of programmes on students and others. In both the processes and results, staff management and moral development make up a key proportion that contributes to student learning and development. This clearly indicates the importance that schools are required to place on the professional development of their teachers.

SCHOOL EXCELLENCE MODEL



(Source: MOE website, www.moe.edu.sg)

Innovation and Enterprise (I & E)

Active and continuous learning among school leaders and teachers was highly encouraged. Besides MOE providing training to teachers on innovation and enterprise, school leaders also organised self-initiated professional development courses in line with the autonomy given to schools. Private consultants and the Civil Service College provided customized courses for teachers. Schools embarked on Learning Journeys for their teachers to visit many different government agencies, statutory boards, commercial organizations and multi-national corporations to give them beyond school experiences.

To help foster the I&E spirit, the Teachers’ Work Attachment (TWA) was set up in 2003 to give teachers exposure to working environments outside of their schools. Teachers could initiate their own attachments to external organisations to broaden their outlook, gain fresh perspectives and gather learning experiences of what is required in the workplace. They can then better prepare their students for the expectations of the workplace.

Principals were also given learning opportunities through a sabbatical scheme. Every principal would be eligible to a sabbatical every six years. The scheme also allows principals to attend training and conferences to gain insights into educational leadership.

Teach Less, Learn More (TLLM)

As the learner is considered as the central focus in the teaching and learning process, teachers are encouraged to apply learner-centred pedagogies through programmes like SEED (Strategies for Effective Engagement and Development of Pupils in Primary School) and SAIL (Strategies for Active and Independent Learning). School-based and cluster-based workshops are conducted by the MOE, the NIE and external consultants for teachers to learn about the pedagogies. Known as TLLM Prototyping, primary and secondary schools and

junior colleges can showcase their innovative instruction by submitting to MOE their proposals. If they are selected, they can receive funding and resources from the MOE to carry out their innovative practices.

Just like in the TSLN years, teachers continue to be provided with many training courses in the TLLM years. Because the focus is on improving pedagogies, the nature of the courses offered to teachers under TLLM are on how to engage in action research, how to conduct assessment for learning, and how to design curriculum.

Juxtaposing the Views of the Providers and Recipients about Content, Approaches and Monitoring of Professional Development Activities

This section seeks to examine the perspectives of different stakeholders who are involved in professional development. One group is the professional development providers and the other group is the recipients of the professional development, that is, the school leaders who manage professional development opportunities in allocating resources to implement professional development and the teachers who participate in professional development.

1) Views from the professional development providers. To elicit the views of the professional development providers, five officers from the various MOE departments namely the Staff Training Branch (STB), Teachers' Network (TN), Curriculum Planning and Development Division (CPDD) and Education Technology Division (ETD) and two academic staff members of the NIE were interviewed in February and March 2006. These providers were chosen because they play specific roles in providing professional development to schools in Singapore.

- a) STB officers are responsible for coordinating the professional development of teachers in Singapore. They look into the professional and personal development of staff; cultivate in teachers an interest for learning; plan and organise in-service training for teachers, school leaders, MOE staff; and the administrative staff who support the teaching staff in their work. STB also initiates new schemes to promote the spirit of continuous learning, and develops and manages on-line programmes and the induction of new teachers.
- b) TN officers seek to build a fraternity of reflective teachers dedicated to excellent practice through a network of support, professional exchange and learning.
- c) Officers from CPDD design and review syllabuses, and monitor their implementation. They also promote teaching and learning approaches that are aligned with the curriculum intent and design assessment modes that support the MOE's Desired Outcomes of Education (DOE). They also conduct workshops and professional development to support teachers in the implementation of revised syllabi and new teaching and learning approaches.
- d) Officers in ETD see to the implementation of IT initiatives and in the course of the implementation, conduct workshops and sharing sessions to equip teachers with IT competencies.
- e) Staff members of the NIE, which is the sole teacher training institute in Singapore, mount in-service training programmes either in content or pedagogy in consultation with STB and CPDD.

The interview questions focused on the nature of, the monitoring of and the challenges of professional development. The findings show that many learning opportunities are provided by the various professional providers in order to develop a well-qualified, competent and

committed teaching force dedicated to continuous learning and excellent practice. These courses deal mainly with pedagogy and content. The content of the courses are not normally determined by the participants. Instead it is largely based on the judgment of the professional development providers according to the curricular or educational initiatives introduced by the MOE, such as those mentioned in the previous section. In terms of the delivery of the courses, it is characterized by various modes ranging from lecture/seminar type, task-based, critical reflection, experiential learning, e-learning, and modeling of educational strategies. According to the professional development providers, the courses are customized and organized specially for staff in a particular school or cluster so that common concerns at the departmental/school/cluster level can be addressed. Professional development is also made more accessible to teachers when they are conducted in schools instead of having participants travel to a centralized venue. The courses conducted over time are also becoming more school-based in nature.

From the professional development providers' point of view, they believe that they have put in place quality assurance by getting participants to provide feedback about the course upon its completion. They monitor teachers' learning through focus group discussions and informal feedback gathered through meetings with teachers. To disseminate the learning, they also expect participants of workshops and courses to conduct formal sharing on a small group basis or during contact time with the rest of the school staff or during departmental/inter-departmental/level meetings. This expectation stems from the common concern shared by the MOE officers and the NIE staff that 'teachers should use their learning and not store it away' after attending the training courses. Based on the interviews, however, there does not seem to be one body or division in MOE to monitor teachers' professional development. The feedback from course participants is not purposefully used to improve the courses through greater coordination between the MOE, clusters and schools; to make the courses more pertinent; or to provide follow-up support to enable teachers' application of the knowledge and skills in their daily practice.

A common opinion that cuts across the MOE and NIE staff trainers interviewed is that they have to cope with the teachers' poor attitudes towards professional development and it is particularly challenging to change teachers' mindsets. Some of the problems staff developers say they face in handling teachers' attitudes towards professional development include the concern of how to offer a range of courses that are relevant in light of the many initiatives and movements that take place within a short span of time; the problem of teachers wanting to be spoon-fed with ready-made lesson plans; and the attitudes of teachers who attend courses not because they are keen and willing but because they have been nominated to attend. Therefore, one of the challenges faced by the providers is the issue of how to manage teachers' beliefs and attitudes and overcome their resistance towards professional development.

The perspective of the recipients of professional development was also sought. School leaders who manage professional development for teachers in schools and teachers who attended professional development courses were interviewed. Among them were five school leaders (two primary school vice principals; one secondary school principal and two junior college principals) and seven teachers (one primary Head of Department (HOD), two secondary HODs, one secondary teacher, one junior college HOD and two junior college teachers). All these personnel were asked similar questions as the staff developers from the MOE and NIE also in February and March 2006.

A second round of interviews of two of the vice-principals (one of a primary school and one of a secondary school) and two teachers (from the same primary and secondary schools as the vice-principals) was carried in June and August 2006 to get more in-depth information to form the two case studies – a primary school case study and a secondary school case study. The case studies provide detailed descriptions of the amount of learning opportunities that school personnel receive; the objectives, expectations and selection of professional development courses for school personnel; support for professional development; the monitoring of the impact of professional development at the school level; and the challenges faced in professional development.

A Primary School Case Study: Perspectives of a Vice-Principal

Mdm F is the Vice-Principal of a government-aided school. This is her seventh year as the Vice-Principal of the school. Prior to this, she was a secondary school History teacher for 13 years. As Vice-Principal, staff development comes under her portfolio and she works closely with her teachers to develop them professionally.

Many Learning Opportunities, Many Providers

For Mdm F, teachers in her school have ample opportunities to attend many different professional development courses provided by various providers. These courses are identified or planned for her teachers in response to the school's or cluster's needs and the MOE's initiatives. Examples of school-based and school-initiated courses are: "Dimension of Learning" (one of the school strategic thrusts) and "Learning Journeys" whose overall goal is for teachers to transfer what they have learnt to their classrooms; school-based "CoPCL" (cooperative learning is another of the school's strategic thrusts), school initiated 'incidental' courses conducted by the Vice-Principal such as one on different strategies for vocabulary building based on the Principal's assessment that teachers needed help in their vocabulary building when she went through students' work); cluster-initiated courses such as "Robin Forgarty's 12 Brain Principles" and "Curriculum Symposium"; MOE-initiated courses on "Understanding by Design", "TLLM" and subject-related pedagogy courses (conducted by the different units in CPDD); the Singapore Teachers' Union's "Teachers Conference"; and courses offered by external agencies which relate to TLLM. The percentage of courses that is a response to MOE's initiatives versus the percentage of courses that is a response to the school's needs are 40% versus 60%.

Objectives and Expectations

According to Mdm F, the main objective for providing teachers with training is "*to build capacities in teachers for them to teach better*". Teachers are expected to apply what they learnt from the courses to their teaching and they will be monitored by her or her heads of departments (HODs) during lesson observations.

Teachers are expected to share during level or whole school meetings. Mdm F said, "*Level type of sharing is for teachers who attend courses conducted by MOE, STB, etc. School level type of sharing is for Learning Journeys. For example, if teachers go to the Canadian International School or the Overseas Family School during curriculum time, they are expected to share what they have observed with the whole school during Contact Time.*" The rationale for sharing is for teachers to pick up ideas and adapt them to their classroom situations.

Selection of Professional Development Courses and Training Hours

According to Mdm F, it is the school leaders, HODs and teachers themselves who decide on the type of courses to attend. Teachers are selected based on their needs through the lesson observations by the school leaders and HODs and their conversations with teachers. Sometimes, the choice is made based on which teacher will benefit more or an individual teacher's interest. For example, not all teachers would be interested to go to the Arts Museum. If the courses identified by teachers are for their own personal effectiveness or enrichment, they can attend them provided that the time does not coincide with their teaching, the school's Contact Time and their co-curricular activities. In fact, her school "*encourages all teachers to attend at least two professional development courses that are really useful to them. Younger teachers usually go for content upgrading whereas the more senior teachers are usually OK with pedagogy.*"

Professional development is linked to the number of training hours. However, in Mdm F's school, the school does not mandate the use of the 100 training hours as proposed by the MOE. Not all teachers would reach the entitlement of 100 hours. The average number of training hours per teacher is about 50 to 60 hours.

Support for Professional Development

Mdm F said that follow-up support is not given to every teacher just because they attend a course. It is only reserved for those courses that the school leaders deem critical. For example, strategies learnt from the TLLM course would be supported and the school would provide teachers with the necessary resources to implement the strategies. For courses which the school leaders know little about, it would be difficult for them to support teachers in their implementation.

Monitoring the Impact of Professional Development

The HODs monitor the teachers' professional development. Teachers would sit with their HODs to go through the Pre- and Post- course report (PPCR) which the MOE has instituted as part of the People Developer Standards (PDS). Before the course commences, teachers would discuss the objectives for attending a course, what they would want to gain from it, and how they intend to use their learning in their teaching. After the course and about six months later, teachers are again asked by their reporting officers how they have used their learning and the follow-up that has been carried out. The PPCR is only done for two important courses identified for each teacher for the year. It can be done at any time during the year and is usually conducted two weeks before the actual course starts. This is different from the Learning Needs Analysis (LNA) that teachers identify at the end of the year together with their supervisor. At the LNA meeting, the targets for the following year are set. Besides the PPCR, Mdm F and her HODs would also observe teachers' lessons.

Challenges faced in Professional Development

One challenge for Mdm F is selecting the right courses for her teachers to attend so that they would benefit from them. However, her main concern is that her teachers should use their learning and not store it away. If they try and it does not work, at least they can modify the strategy to improve their teaching.

A Primary School Case Study: Perspectives of a Primary School Teacher

Mrs J is a primary school teacher with 21 years of teaching experience. She taught in three primary schools before she was posted to the current school. Presently, she holds several portfolios in the government aided-school which includes being a form teacher; a level manager; a member of the school's curriculum development department; a Transit Time

committee member (this committee plans daily activities for students between 1 and 3 pm before their remedial lessons commence at 3 pm); and a mentor for a few novice teachers. She attended many professional development courses this year: “Teaching children with special needs”; structured mentoring and curriculum design course; the Teachers’ Convention; “Community of Practice in Cooperative Learning” (CoPCL); an English course; “Understanding by Design”; and her school’s Learning Journeys. Her school and she made decisions as to which courses she would attend and these were based on the needs of the school and her own.

“My school decided last year that I should attend the curriculum design course because it is going to do away with textbooks this year. Mounting CoPCL is a school decision for all Primary 1 to 3 teachers. The school wanted me to attend the RELC’s English course because I am covering duties for my HOD/English. I volunteered for “Teaching Children with Special Needs” course because I have such children under my charge and I wanted to be better equipped to handle these children by going for a proper course. In the past, I used to email my psychiatrist cousin in the States for advice whenever I had a problem with these special children but no more.”

Attitude Towards Professional Development

Mrs J has enjoyed all the professional development courses that she has attended this year as she *“can learn something new. It’s nice to learn. If not, teaching becomes mundane.”* She adopts a positive attitude towards learning opportunities regardless of whether she volunteers for them or not.

“If it is something I wanted to attend, I would enjoy myself. If it is something that I did not volunteer myself, I would go with some apprehension. But once I am into the course, I would look at it positively as an opportunity to learn new ideas on teaching. Sometimes, I would go for repeated courses to refresh my memory.”

Usefulness and Support of Professional Development

Mrs J has found the content of the professional development (PD) courses which she attended this year relevant and useful to her teaching and her principal has a role to play in this.

“The courses I attended so far are very good. In the past, it might not be five (on a Likert Scale). It is because of the principal. She is positive and she moves us towards new things. I like change.The Principal believes in change and the PDs are useful. I don’t look at change negatively. It can help me.”

Mrs J gave some examples of useful courses which she attended this year - the curriculum design and structured mentoring courses. She has this to say:

“We are not trained in curriculum planning and so we do whatever we can. But with the training on the use of big ideas and enduring understanding (from the Understanding by Design course), we can have a better instructional programme...I am also a mentor for beginning teachers. I was unable to really talk to them as I did not know how far I should go to talk and help them. But with the Structured Mentoring course, the scope of mentoring, on what to do and how to handle issues are made explicit and discussed and I know what to do now.”

Impact of Professional Development

Mrs J has picked up many new ideas from the professional development opportunities. One such opportunity is her school’s Learning Journeys which are organized to provide

teachers with an opportunity to transfer what they have learnt to their classrooms. They have made an impact on her teaching as well as her colleagues even though initially they were not keen on them:

“Many teachers don’t like Learning Journeys. They would rather go home early or use the time to mark their work. But it was compulsory and we had to forgo the marking, etc. When the teachers went for these Learning Journeys, initially they were negative. But once they were in it, it was fun and they were OK. For me, it is an opportunity to learn new things. For example, during the visit to the Hans Anderson exhibition in the Philatelic Museum, we saw his shoes, heard his tales and the visual impact helped us to understand how a conducive environment will aid learning. As I listened to Hans Anderson’s stories in the museum, I thought of how to make my own classroom conducive for my pupils. I noticed that some teachers applied what they have learnt from that Learning Journey - they decorated their classrooms when they came back.”

The Learning Journeys have also had a positive impact on teachers’ interactions with one another. Mrs J said:

“... the moments for interaction amongst teachers in school are short and we normally interact with teachers at our own level. We don’t know what’s happening to other teachers in the other levels unless they reach out to others in the other levels...Learning journeys bring teachers together, to get us to mingle with one another.”

Value of Sharing

Mrs J’s school expects teachers to share their learning after the professional development courses have ended. Mrs J believes in the value of sharing.

“Sharing is very important. You know why? Like yesterday, I was sitting with the teachers in a primary school during a curriculum design course and one teacher told me that because I was passionate with what I shared with her, my sharing created in her a desire of wanting to try. Like you believe in cooperative learning and you share your passion and enjoyment with us and we are affected. If you share without passion, there is little learning for others.”

However, Mrs J does not think that all the sharing would be useful to the teachers because it depends on the topic and the person who does the sharing. *“Some may not find the topic useful as it is not related to them. It must be useful to the person who can use it as a tool, it is sharing of the tools...and it depends on the person who shares. If the person shares just because the principal asks her to share and the person has no passion, it is a waste of time.”*

Challenges faced in Professional Development

On a personal note, Mrs J faces the challenge of juggling her time between teaching and attending courses, especially those courses that are scheduled close to the examinations. She has little time to do revision with her students as she is out of school for training during curriculum time. She said, *“But I had to do revisions with my pupils and I was worried for their performance as there were a lot of disruptions when I was not around in school because of professional development.”*

On a professional note, Mrs J, as a level manager, sometimes faces the problem of getting her teachers to apply what they have learned from the courses they attended. *“I told the teachers that we should apply the CL strategies from the CoPCL course in our planning and the Principal said the same thing. But there are teachers who said that there are too many*

things on their plates. They are negative and they influence the younger teachers and they want to see the Principal..... Teachers felt that there is so much work for CL, for SAIL. If you have negative vibes, the going can be tough...some teachers don't see change as necessary for the pupils. They see change to please the school leaders."

Despite these challenges, Mrs J still views professional development positively. She regards it as an opportunity for her to learn and to be a better classroom teacher.

A Secondary School Case Study: Perspectives of a Vice-Principal

Miss S is presently a vice-principal of an autonomous secondary school. She taught in a primary school for a few years and then worked in the MOE prior to her current appointment as a Vice-Principal. The professional development of her school's personnel is one of the key responsibilities and because of this, she was interviewed.

A Structured Framework for All Staff through Different Platforms

Miss S provides different learning opportunities for her staff members in a systematic way. She organizes the learning opportunities through different platforms: school-based workshops for all the staff members including the non-teaching staff members, and learning circles and sharing sessions. She believes that school-based workshops involving all the staff members are useful in helping teachers get acquainted with what the school values. For instance, all teachers attended the 'TLLM' workshops and another workshop on 'I & E'. Two platforms that involve the whole school are the reflection days and contact time in which the staff discusses matters which are applicable to all the subject areas and which they have identified to be important to their teaching. This is what she said. "*Specifically for the teachers, there is half an hour of learning during Contact Time, sharing on issues that matter to them, like one teacher identified the management of pupils and the other on e-learning, and more generic, cuts across all departments.*"

According to Miss S, at the department level, the teachers share their learning acquired from workshops attended during learning circles. Individually, the teachers could sign up for workshops organized by the STB, by the various branches of CPDD and by external agencies.

She thinks that the professional development opportunities are abundant and varied in her school. She said, "*So we have a structure, from school wide, to departmental, to individual. At the individual level, it is more of enrichment.*"

Objectives and Expectations of Professional Development

Miss S sees that there are different objectives in providing professional development. One of the objectives of professional development is to signal the importance of certain initiatives that are implemented by the MOE, like TLLM. However, she highlighted that that not all initiatives are given equal emphasis by the school, bearing in mind the school's resources and the teachers' needs.

Another objective of professional development is to improve the teaching skills of beginning teachers. For instance, the beginning teachers in her school are required to attend in-house courses conducted by professionals stationed in her school and by the experienced teachers. The counsellors in the school will conduct courses on how to relate to pupils and counsel pupils while her senior teachers will conduct courses on class management. Besides improving the skills of teachers, the other objective is to widen the horizon of teachers by sending these teachers for school attachment programmes. The last objective is to stretch

some teachers who are deemed to have high potential. These teachers are given challenges or assignments to assess if they are ready for higher positions.

Selection of Professional Development Courses

According to Miss S, teachers could exercise autonomy in choosing the courses they would like to attend. However, there are some guidelines in deciding if the teachers could attend the courses finally. For example, she would not approve enrichment courses like photography courses. She asserts: *“I am not too keen to arrange for them to attend personal enrichment courses, for instance, photography courses. I do not see how the course is relevant to the teacher’s work unless it is related to his/her CCA”*.

The school management also gives direction to the staff on the courses they should attend. As described in the earlier section, the selection of courses depends on the teachers’ needs and the developmental stage they are at in their teaching career.

When asked if the initiatives launched by the MOE have influenced the courses that the school would like the staff members to attend, Miss S felt that the school has prioritized the courses by considering the readiness of staff and the importance of the courses. She elaborates:

“We identify which are the ones that we are more ready and which are the ones that are important and which are the ones that we can go slower. There are some initiatives which are important, for instance, TLLM which urges the teachers to consider students’ needs. Regardless of the stage teachers are at, they still need to be proficient at these.”

Support for Professional Development

Miss S felt that the school has provided support in the form of resources or time to attend the courses if they consider the courses to be important for achieving the school’s objectives or relevant to the core business of education. According to her, *“we will make arrangement for teachers to attend courses which are important to them by calling in our relief teachers”*. Support for professional development have also come in the form of structures for teachers to share their learning.

Monitoring the Impact of Professional Development

Miss S contends that it is a challenge to monitor teachers’ learning. According to her, the school finds it easier to monitor the learning acquired through school-wide workshops via mechanisms like students’ surveys about their learning; teachers’ reflection of their learning; and discussions about their learning during their work review sessions and lesson observations.

She also creates opportunities for teachers to actively apply their learning. For instance, teachers who have attended courses share their findings with their colleagues in the same department in the form of learning circles. As for those who have attended the action research workshop, they have been encouraged to apply their learning by leading a team.

Challenges faced in Professional Development

One challenge that Miss S faces is that sometimes the same teachers may be over-taxed to attend workshops as some of the courses are important but of an ad-hoc nature which she is not in a position to plan for.

Beliefs about Professional Development

Miss S believes that teachers should continue to improve and upgrade their skills. She said, *“working in an educational institution and we should be role models to ours students, that is, we should be lifelong learners. This also extends to my EAS. They find it to difficult to attend external courses as they may not understand the instructor due to language factors. We have customized workshops and team sharing sessions quarterly”*.

At the same time, she is realistic about the changes that could be brought about by professional development. She maintains, *“As for the school-wide workshops, we need to be realistic. We can’t expect changes to take place after a few workshops. At least, it creates awareness and emphasizes to the staff members what the school values”*.

A Secondary School Case Study: Perspectives of a Teacher

Miss A is a secondary school teacher with 13 years of teaching experience. She has been teaching in the same secondary school since her graduation from teacher training college. She was a member of the committee that looks into organising professional development activities for her colleagues. The courses she attended this year are mainly school-based and those organized by MOE.

She cited a few courses like inquiry learning, TLLM workshop and the innovation protocol workshop. She found the workshops on inquiry learning and the TLLM workshop useful to her teaching.

Attitude towards Professional Development

Mdm A prefers the workshops organized by the school or the customized workshops as she calls them. She considers them as being more useful as they take into account the needs of the school and the type of students the school has. Another reason is that school-based workshops reduce the amount of travelling time compared to if the workshop had been held elsewhere like a cluster-based workshop. She also finds that learning circles are useful as she learns how to do problem-solving of some challenges she faces in teaching her subject. She thinks that the ideas suggested by her colleagues in their professional sharing during the weekly contact hour are useful.

Usefulness of and Support for Professional Development

Mdm A considers the workshops and sharing sessions as platforms to pick up new teaching ideas and strategies and to discuss and critique these ideas. She notes that modelling is a powerful strategy. This is seen in the case of her Science Head of Department videotaping her own lesson on questioning techniques in inquiry learning and using it as a training resource in the workshop for beginning teachers.

Impact of Professional Development

Mdm A likes the workshops which centre on the teaching and learning of the subject. She has used some of the ideas which she learnt from the workshops for her teaching. She finds workshops that take into account teacher’s practices useful. At such workshops, the trainer shows examples of students’ work and discusses possible challenges which teachers may face when carrying out a new strategy.

Sharing of Learning

Mdm A mentions that the school has provided a platform for her and her colleagues to share their learning through learning circles, weekly contact time and school-based

workshops. When asked if the learning community should be another mode of professional development, she saw a learning community as resembling the learning circle that the school has put in place. When asked if the learning circle provides for the planning of lessons together, Mdm A thinks that collective lesson planning is not a feasible idea as it takes up a lot of time.

Challenges faced in Professional Development

Mdm A acknowledges that professional development though useful, can take up to at least 4 hours per week, out of a total of 35 hours working hours. Another challenge which she identifies more with her role as a member of the professional development committee is that of sourcing and organising professional development activities to meet the needs of different group of staff members.

The Challenges of Professional Development in Singapore Schools

To sum up the main findings from the above case studies, they point to the fact that teachers have ample opportunities to engage in professional development. There is a great variety of courses for teachers to select from and to be nominated to attend. In addition, teachers' learning is monitored by their supervisors in the persons of their heads of department, vice-principals and principals. The basic expectations of school leaders are that their teachers share and apply their learning after attending the professional development courses.

Although the case studies generally paint a positive picture of professional development in Singapore schools, implementing and responding to professional development opportunities are not without its challenges as shown in the case studies. This is further evident from the first round of interviews with the providers of the professional development, school leaders and teachers. 'Training fatigue' is a common fact acknowledged not just by school personnel but also by the MOE officers interviewed. For the teachers, they have had many initiatives to 'catch up with', learn about and implement. As was indicated at the beginning of this report, teachers have, since the onset of TSLN in 1997, been 'bombarded' with a wide spread of courses on the buffet table. For instance, as was stated earlier that in the late 1990's, NE, Thinking Skills and IT were education initiatives that teachers were expected to infuse into the school curriculum. As a result, many courses and workshops in these areas were specially organized to equip teachers with the pedagogical content knowledge referred to by Shulman (1986). Other popular courses that were mounted to improve teaching and learning included cooperative and collaborative learning and Dimensions of Learning. In addition, over the last ten years, English Language, Mathematics, Science and Humanities teachers at all levels have had to manage and cope with revisions in the syllabuses and content reduction in the curriculum. In more recent years, teachers have had to take into account initiatives like I & E, TLLM and curriculum initiatives like School-based Practical Assessment (SPA), Strategies for Active and Independent Learning (SAIL), Social and Emotional Learning (SEL) and Strategies for Effective Engagement and Development of Pupils in primary schools (SEED). With wave after wave of initiative and reform, teachers who are at the receiving end of change are usually expected to incorporate the changes into their teaching soon after they attend the courses. A vice-principal of a junior college stated that his teachers find "difficulty squeezing in what's learned" and believes that "the general practice of teachers should be observed over time for meaningful change can occur only through an extended period of time." Change in teachers' practice requires time, as has been widely acknowledged in research on change management.

In the midst of the many initiatives, school leaders also encounter the challenge of making tough decisions about the distribution of resources. For example, they have to take into account fund allocation given that they have a certain budget to work with, who among the staff will attend which courses; and the time-tabling constraints when staffs attend courses. Here is a quote from a vice-principal of a junior college who succinctly sums up this challenge: ‘Lack of funds. Some courses are quite expensive. Cannot afford to send more than one teacher at a time. Finding the time to disseminate the training especially if there are insufficient funds to train everyone at the same time.’

The third challenge is the lack of time for teacher sharing. Scheduling teachers’ time-tables to create common time and space for teacher sharing can be quite a problem considering the staff size, the many different classes and levels that the teachers teach, and the many duties that the teachers have which affect their availability and presence at such sharing sessions. School leaders also experience difficulties in monitoring the application of training. It ‘requires time and energy’ is the view of a vice-principal in a junior college. A teacher in a junior college reinforces this point by stating that although his school leaders expect teachers to share what has been learnt from a course, the sharing sessions are not frequent. Although there was no opportunity to probe deeper into the cause of the infrequent sharing sessions, it can be inferred that such sessions require careful planning so that other teachers can have the time to attend.

The fourth challenge is that of the teacher’s and school leader’s many roles and this in itself brings on the question of identity – who and what is the teacher / who and what is the school leader? With the launch of the many initiatives and movements as was detailed earlier, the teacher’s role has ‘snowballed’. S/he has to juggle many tasks and responsibilities like classroom teaching and management duties, administrative tasks, co-curricular activities, membership of committees and school duties. The evidence is given by a vice-principal of a junior college who said that “the teacher’s role has expanded in recent times. You have TLLM, I & E, EQ and what not. Great – but teachers are often not prepared for these changes and new developments...Also with new developments, reporting officers (ie school leaders) are expected to be coaches, e-coaches, mentors, systems thinkers, organizational development implementers and so on”. The vice-principal’s comment about school leaders indicates that they too have to manage with multiple roles of being chief executive officers (CEOs), visionary mentor, coach, entrepreneur and human resource developer. From late 1990’s, school leaders were increasingly regarded as CEOs. This is reflective of educational leadership being influenced by the demands of globalization. As CEOs, school leaders have been given greater autonomy to make local decisions at the school level. With the autonomy are greater expectations placed on school leaders who must take on added roles and develop a much wider range of competencies compared to their counterparts ten to twenty years ago. More recently, with the onset of TLLM which advocates school-based curriculum innovation, the school leader has an added role of being curriculum leader. Hence, the teacher’s and school leader’s roles and identities keep changing rapidly according to global, societal and political demands.

The last but not least of the major challenges is the degree of transfer of teachers’ learning into practice. The respondents all said that they expect or are expected to apply whatever they learned from professional development courses. While we acknowledge that we did not manage to gather more in-depth information about the degree of transfer of learning, the general picture that we have put together so far is that the degree of transfer and application of teacher’s learning into practice is rather limited. We are not absolutely certain that the

following equation holds true: Professional development = effective teacher learning = practical application in classrooms = effective student learning = desired student outcomes. How to bring into effect this function of PD is what researchers, policy makers and schools are working hard to achieve.

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