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REVIEW

The
Professional
Development
of Teachers

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Vol. 10 No. 3: **Project Work: Teaching, Guiding and Assessing"**
        Deadline for articles: 30 June 2001

The Professional Development of Teachers

C O N T E N T S

Professional Development for Teachers: Peixin Primary School

Irene Ho

Introduction

The notion that teachers graduate from a teaching college as a finished product with all of the tools needed to be highly effective teachers is a misconception. Within the body of research on teacher training and development, there has been a great deal of emphasis given in the last two decades to the continuing professional education of teachers.

The literature dealing with conceptual and methodological aspects of staff development is prolific. Although different names have been used and periods of trial and error have marked efforts to determine the most effective delivery systems, the main intention is to strengthen the competence of teachers to improve education. The various terms commonly used to describe the concept of INSET are professional development, in-service training, professional growth, staff development and in-service education.

As professionals, teachers continue to be learners throughout their careers. Indeed, the period between the point of entry to

Meeting Parent Volunteers Session.

teaching, and to the end of their teaching career is a vital phase of learning, in which the beginner, emerging from the status of student learner, must become responsible for promoting learning in others and himself. Teachers must continuously polish and expand their current repertoires of knowledge and skill throughout their careers.

There is emerging consensus that staff development leads to teacher growth (Burke, Heideman and Heideman, 1990). As Harris (1989) aptly put it, 'Staff development has to do with helping people to grow, learn, improve, enjoy, think, and do' (p1). Fundamental to staff development is the notion that staff development is designed to influence teachers' knowledge, attitudes, or skills thus enabling them to create educational concepts and design instructional programmes to improve pupil learning (Heidman, 1990; Coladarci & Gage, 1984; Cooper, & Jones, 1984; Sparks, 1985).

Staff development can be perceived from the view of both the individual and school system. From this perspective, staff development is the effort to correct teaching deficiencies by providing opportunities to learn new methods of classroom management and instruction. An important aspect of profession development is the organisational structure that serves to support professional development activities or the context in which it takes place in the schools' (DES, 1972, p 11).

The concept of a learning organisation is becoming increasingly popular since organisations want to increase their competitive advantage, innovativeness and effectiveness in order to be more adaptable to change. But what indeed is a learning organisation? Over the last decade much has been said and written on the subject, but there does not appear to be one clear definition. However, many do agree that the learning organisation is an ideal, a vision.

According to Senge (1998), a learning organisation is one in which people continually expand their capacity to create the results they truly desire, where new and expansive patterns or thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. In a learning organisation, formal policies, practices and procedures make it easy for personnel to study new ideas and to make time to implement them. The first learners are the teachers. Thus, the

organisation allocates time for information gathering, peer coaching, mentoring, and celebrations. Teachers show commitment by risking attempts at new ways of teaching. Principals show commitment by encouraging risk taking and providing incentives for attention to application quality.

Professional Development For Staff

In Peixin Primary School, the key personnel have emerged as a key link in the process of providing professional development for staff (Brookover And Lezotte, 1979; Purkey and Smith, 1985). Specific duties have included:

- Setting up a staff-development committee to plan, co-ordinate, select priorities aligned with the school vision and ensure facilitation of clinical and systemic components;

- Crafting a culture that reflects a shared vision in continuous professional development; working to develop shared beliefs among all staff (Deal and Kennedy, 1981). HODs have worked out a 3-year Total Training Plan that includes 3 levels of training for staff (basic skills for new teachers – such as planning, organising, interacting with pupils and parents, assessing etc; intermediate skills for experienced teachers – IT, counselling etc; and advanced skills for potential leaders – managing, HR, public speaking etc);

Visit by three Thai School Principals to Peixin Pr.
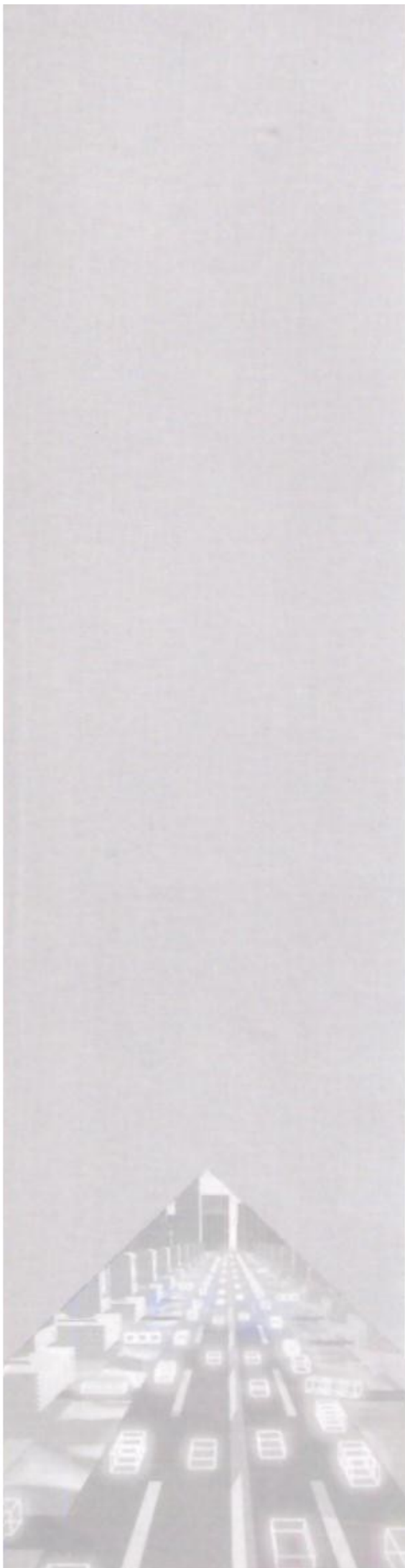
- Modelling commitment to continued growth (Little, 1982); demonstrating an openness to suggestions for improvement, eagerness to share what they have learned and celebrating successes with others as a team. This is done by encouraging teachers to share 'best practices' at Contact Time and at Conferences such as the APEC in April this year;

- Promoting individual and organisational self-efficacy and personal mastery by encouraging teachers to acquire new skills for the Thinking Programme, organising site transfer teams and study groups assisted by an NIE consultant, to facilitate their activities to collect data and implement ideas for change in a variety of ways. In addition to Joyce and Showers' (1983) peer coaching model, best practices include action research teams, cluster groups, quality learning circles for NQCC (Gold and Bronze awards) and Learning Circles for Teachers' Network Conference;

- Demonstrating a caring sense of community (Cohen, 1983); supporting teachers to find appropriate resources; encouraging systemic collaboration among teachers through collegiality; structuring time at meetings for study groups to talk about their teaching (Valencia and Killion, 1988);

- Challenging teachers' mental models to see themselves as rational decision-makers who can and do make a difference (Ahston, 1984) through the use of reflective questioning (Killion and Harrison, 1988); reflective logs in Teachers' record Books, and modelling and guiding teachers in engaging in experimentation, self-analysis and reflection of their decisions and the actions that result from those decisions;

- Becoming knowledgeable about training; ensuring that the staff is knowledgeable, by actively participating in training and the implementation of collective and systemic initiatives. Knowledgeability is the key here, for an in-depth understanding of innovation in curriculum and instruction is necessary to plan facilitation (personal mastery);

- Continuously assessing the educational climate of the school, feeding information and perspective to teachers for use in decision making about possible areas for study and improvement.

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A Formal Induction Programme For New Staff

In planning for induction programme, the school has set up an induction programme to help new teachers to

- Improve teaching performance through the formation of peer support groups, coaching-in-reflection and a comprehensive orientation programme.

- Promote beginning teachers' personal and professional well being through the appointment and training of mentors and systematic administrative support.

- Transmit the culture of the school system to them through a Handbook.

- Provide support services to the beginning teacher through a school mentoring teacher who can assist in developing professional competencies.

Professional Development For Key Personnel:
An Action Plan

The following is an action plan for a project undertaken by the principal to develop and lead a high performance leadership team in the school:

Goals:

1. To equip key personnel with skills so as to meet the challenges of the new millenium.

2. To identify and develop officers with high potential as future leaders.

Objectives:

1. To bring key personnel's awareness to roles as leaders in the 21st century.

2. To develop the leadership skills of key personnel (systems thinker, change agent, innovator, and risk taker, servant and steward, coach, mentor, visionary leader).

3. To coach officers in Action Learning process so as to enhance their ability to think and act strategically.

Action Plan:

Activities	Personnel	Time Frame
Briefing to key personnel about pilot project	P	Phase 1: July 2000
Sharing session on Action Learning process	P	August 2000
Formation of Action Learning Teams (9 teams according to SEM criteria)	P/VP/HODs	August 2000
Definition of objectives, identification of roles and projects for action learning: members identify staff with high potential	P/VP/HODs	August 2000
Implementation of project – sharings, reflective logs for staff, peer coaching, observations	P/HODs/Trs	Phase 2: August 2000
Evaluation of project – progress reports on educational benefits, concerns, improvements	P/HODs/Trs	Phase 3: Mar 2001
Follow-up on project – revising/ fine-tuning	P/HODs/Trs	Phase 4: June 2001

Levels of Learning:

Adaptive Learning – Learning from experience and reflections.

Anticipatory Learning – a vision-action-reflection approach.

Generative Learning – learning that is created from reflection, analysis or creativity.

Single loop and double loop – types of learning that are differentiated by the degree of reflection.

Types of Leadership Skills:

Reflection-in-Action
Analysis
Problem Solving:

➤ Present the problem

➤ Reframe the problem

➤ Determine causes of the problem

➤ Develop alternative solutions

➤ Evaluate alternative and select actions

➤ Implement the solution

Conclusion

Staff are human resources that school systems must cultivate. The school must organize support systems that will help new staff to feel welcomed into the profession and keep them resilient and effective in classrooms. At the same time, support programmes must be specifically designed in such a way that not only can it serve as effective staff development programme for staff, but it could be implemented as continuing professional development for all other teachers.

A successful staff development programme will not only increase the retention of promising teachers but also improve teacher effectiveness and promote the professional and personal well-being of new teachers. It will also create a greater sense of belonging, worth and professionalism for all teachers in the system.

The future of education is dependent on the strength of our new teacher ranks. It is hoped that the staff development programme for the school can serve as a model for other schools in their commitment to promote the personal and professional well being of their teachers. Staff development should be viewed as a means not an end and should be seen in the perspective of a proper educational management programme and structure. Finally, the process of staff development should 'start where people are, not where we want – or imagine – them to be' (Lieberman and Miller, 1978, in Hamblin, 1989, pg 22).

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The Role of Reflective Practice in the

Jaishankar Upadhiah

Introduction

As an approach to inquiry, the philosophy and technicalities of Reflective Practice particularly in the area of professional development has undergone an evolution of sorts. An attempt will be made in this paper to review the definitions of and approaches to reflective practice. This would be followed by an analysis of current reflective practice approaches in teacher development programmes or studies. Finally the implications for teachers who wish to engage in critical reflection on their practice would be outlined. Three factors motivated the writing of this paper: the ethical use of the 100 hours of training that is every teacher's right, the need for a more effective transfer of the training that is acquired and the conviction that reflective practice by virtue of its appraisive rather than prescriptive nature (Mezirow, 1991, p87) is central to the process of continous learning.

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Professional development is often defined too narrowly and often becomes the "workshop" failing to have a sustained cumulative impact. At its best, says Fullan (1992) it serves to support the implementation of specific innovations, but lacks any integration with the day-to-day lives of teachers. Thelan (cited in Sergiovanni, p210) suggests that the most useful teacher development programmes are characterized by "...intensity of personal involvement, immediate consequences for classroom practice, and initiation by teacher rather than outside agencies." If teachers aspire to go beyond the mere acquisition of new knowledge and understanding, critical reflection on their practice is a pivotal influence to their development.

Currently the professional development for teachers in Singapore is initiated by the MOE, the cluster or the HOD in the school through remote means of training needs analysis. Apart from these, teachers are also nominated to attend external conferences and seminars. There is often very little time for sharing ideas in a systematic way. It is quite clear that it is not possible to satisfy everyone's needs at such events both in terms of focus areas and the varying levels of teacher experience. While there is an advantage in all teachers having the opportunity to come together to discuss common issues, it is questionable what lasting educa-

tional impact a one-day event has and how much is translated into classroom practice. Thus current professional development practices do not always value what teachers have to offer.

To have longer-term effects, professional development should involve teachers in generating their ideas about classroom practice and to be involved in the process rather than to have externally imposed professional development activities. Reflective practice provides the potential for teachers' involvement at varying levels. The two influential proponents of reflection, John Dewey, the early 20th century educational thinker and Donald Schon, a professor at the Massachusetts Institute of Technology will be referred to in crystallizing the concept of reflective teaching.

Reflective Practice

According to Dewey (1933), there is an important distinction between teacher practices that are routine and those that are reflective. Routine practices are motivated by impulse, tradition and authority. Such practices are uncritically accepted and efforts are concentrated on finding the most effective and efficient ways to solve problems that have been largely predefined. Reflective practices on the other hand involve 1) understanding a situation thoroughly, 2) knowing the goal the teacher want to reach, 3) considering as many options as possible for reaching that goal, 4) evaluating the options and 5) making a plan before an action is taken. It is a holistic way of meeting and responding to problems, "...a way of being as a teacher." Reflection:

> Emancipates us from merely impulsive and routine activity ... enables us to direct our actions with foresight and to plan according to ends in view of purposes of which we are aware. It enables us to know what we are about when we act. (Dewey, 1933, p17)

The argument most teachers in Singapore would put forward is that Dewey's ideas are too idealized and divorced from the complexities and pressures of the competing demands from a teacher. Some may argue that to expect teachers to be reflective is too demanding by virtue of the structure of the classroom, curriculum and block scheduling of teaching periods.

An alternative and influential view of reflection is provided

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by Schon, (1983) Reflection can occur in two time frames. First reflection can occur before or after an action, which he labels as reflection-on-action. In teaching therefore, reflection-on-action occurs when the teacher thinks and plans before her lesson and after her teaching when she considers what took place. Reflection can also occur during a lesson, while teaching. Very often teachers face unexpected situations or responses. Solutions and decisions are made on the spot. Schon refers to such act as reflection-in-action. Reflective teachers as defined by Schon would be those who reflect "on" and "in" action. He is of the opinion that there are certain actions teachers carry out spontaneously without having to think about them prior to or during the performance of the acts. Very often this knowledge is difficult to express in concrete terms. Thus one way to think about the concept of reflective teaching is to think about surfacing the tacit knowledge that we often do not express and subjecting them to critique. Schon stresses that reflection-in- and on-action are the mechanisms that reflective teachers can use to allow them to develop and learn from their experiences.

Teaching when approached in the reflective manner as advocated by Dewey and Schon can, in the context of Singapore, be rather daunting for the teacher. Questioning personal beliefs and examining the consequences of their actions in the cultural context that is alien to such practices can be formidable for many. The deeply ingrained nature of behavioural patterns makes it difficult for some to develop a critical perspective on their own behaviour. For this reason alone the challenge if embraced in and environment that is conducive to collaboration is likely to lead to greater learning. Although Schon's conception of reflection has much to recommend it, two features need to be added. (1996, Zeichner) The first arises from the solitary and highly individualistic nature of reflection. This issue can be addressed by enhancing the process through communication and

Professional sharing among teachers in Pioneer Primary School.

dialogue with others. Second, for reflection to be meaningful, it has to stretch beyond the borders of the classroom to embrace the contexts in which teaching is embedded.

So far, our discussion of reflective teaching has moved from Dewey's notions of reflective dispositions, to Schon's conception of the spiral process of reflection in and on action. The salient feature of reflective teaching is the recognition by the teacher that a central source of her teaching is her practical theory and her sensitivity to the way in which the contexts in which she works influence her actions. Additional characteristics of the reflective teacher will be considered in an attempt to bring into focus its role in the professional development of teachers.

Reflective Practice in teacher development

Reflection and the role it plays become apparent with the realization that learning about teaching is different from learning to teach. Much of what goes on in Professional Staff Development programmes concerns learning about teaching. Learning to teach should involve reflection, analysis and open-minded critique. Despite the contentious nature of reflective teaching, Pennington (1992) proposes a reflective orientation as "... a means for (1) improving classroom practices and outcomes, and (2) developing confident, self-motivated teachers and learners..." (p51). This can be achieved as mentioned by J Furlong et al (1994) by:

- Focusing on the complexity of the thinking underlying professional decisions
- Exposing the moral, practical and other dilemmas underlying these decisions
- Evaluating the consequences of particular decisions
- Discussing the social, institutional and political contexts in which professional decisions are made

Farrell (1999) elaborates on this descriptive level of reflection and proposes suggestions to encourage teachers to become more reflective. The suggestions mentioned are:
1) Join a learning circle comprising teachers with similar interest
2) Build in some ground rules
3) Make provisions for three different kinds of time
4) Provide external input and
5) Provide for a low affective state.
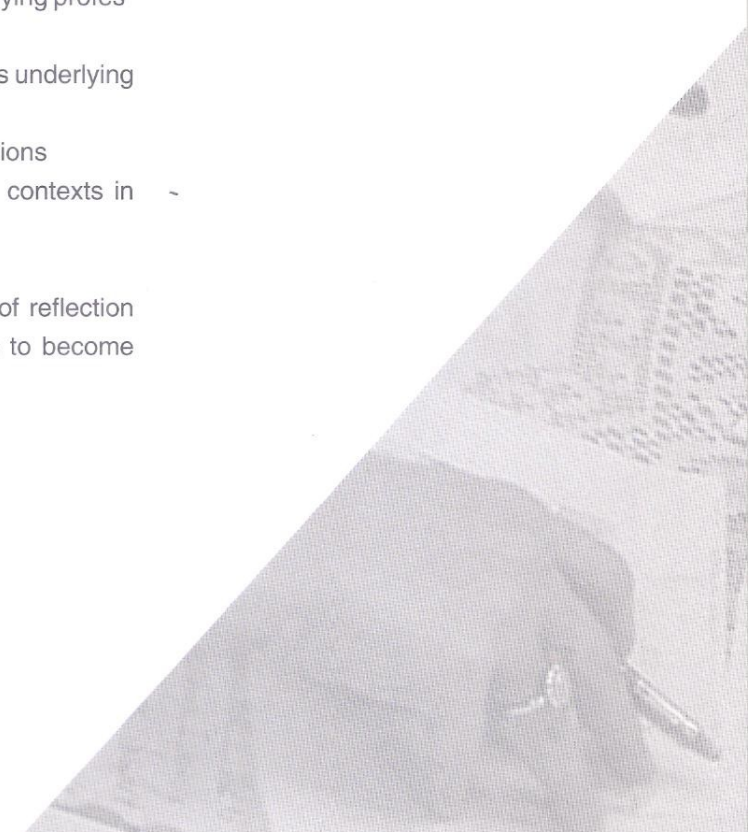
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The formal getting together as a teacher development group and the formulation of ground rules to discuss issues will help teachers keep on track. Farrell recommends the provision of 3 types of time for any model of self-development group. These are individual time, time it takes to develop and time frames for the period of reflection. By external input, he means yet another source of data apart from personal reflections to become more critically reflective. The creation of a climate that is non-threatening is essential for deep-level reflection as too much anxiety may impede critical reflection.

Implications

What are the implications for teachers in the Singapore context? One of the most common ways the concept of reflective teaching is used involves helping teachers reflect about their practice using a standard set of teaching behaviors in various domains of teaching (eg. Planning, management of student conduct, organization, development of instruction,etc) The teacher is denied the use of her prior knowledge, expertise and wisdom. The mere replication of a standard set of teaching behaviors, devoid of problem-solving and decision-making abilities on the part of the teacher tantamount to the stifling of talents.

Yet another area to consider is the imposition of certain issues for teachers to reflect on. Certain models of reflective practice confine teachers to reflect on technical aspects of teaching. Teachers are constrained by certain structures and processes and even systems, which are considered sacrosanct. For example, teachers may reflect on strategies but not on issues related to the curriculum as these are determined by 'experts'. Quality teaching is inextricably linked with ethical issues as well. Reflection devoid of these at its very best is questionable. Thus the introduction of reflective practice as a form of professional development has to be managed through careful consideration of these implications.

Conclusion

All teachers are reflective in some sense. The issue fundamentally is on what kinds of reflection are teachers engaging in, what it is teachers are reflecting about and how are they going on about it. (Zeichner 1996). As reflection is closely linked with learning from

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experience rather than from spoken and written advice over the course of their career, opportunities for learning are great. Professional development is not something that must be done to teachers but rather something; they need to do for themselves. The role of reflective practice in teacher development is significant, as it is in tune with differentiated growth levels, personality characteristics, needs, interests and professional commitments of teachers. It offers a practical, comprehensive and robust strategy for lifelong learning. As Henderson (cited in Farrell, 1999) says: "If you, as a teacher, are not thoughtful about your professional work, how do you expect your students to be thoughtful about their learning?" (p.vii)

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# From Trainee Teacher to Practising Teacher: A Personal Perspective

John Ow

The transition from a trainee teacher to a practising teacher is a crucial phase in the professional development of a teacher. A smooth and positive transition would serve to lay the foundations necessary for future growth and development. A turbulent and negative transition on the other hand would adversely affect a young teacher's confidence and psyche.

My transition from a trainee teacher to that of a teacher has fortunately been smooth and positive. As I reflect on this transition, I have identified from a beginning teacher's perspective, some factors which have facilitated this transition. They are a comprehensive induction programme, a strong congruency between a beginning teacher's perception's of the role of a teacher and that of management's, a creative and learning school culture and a warm and supportive school staff.

The induction programme I had to undergo consisted of a centralized component organized by the teacher's network and a school based decentralized component. Both components were important. The centralized component welcomed me as a trainee teacher to the teaching profession while the school based programme welcomed me to the school. It was the later programme however, that I feel played a more important role to facilitate this transition.

The school-based induction programme was conducted over a period of time. The initial session was with the Principal and Vice-Principal while the following sessions were with the respective HODs and key personnel. The first session with the Principal and Vice-Principal was my first introduction to the management. Usually, these sessions can be intimidating when handled too officiously or worst still, done in a rush. Fortunately, my first session was none of these. The Principal and Vice-Principal were warm and friendly. Their behaviours conveyed a strong sense of responsibility in welcoming me and the other new teachers to a different culture. At no time were we made to feel that our induction session was an item on a daily schedule that needed to be
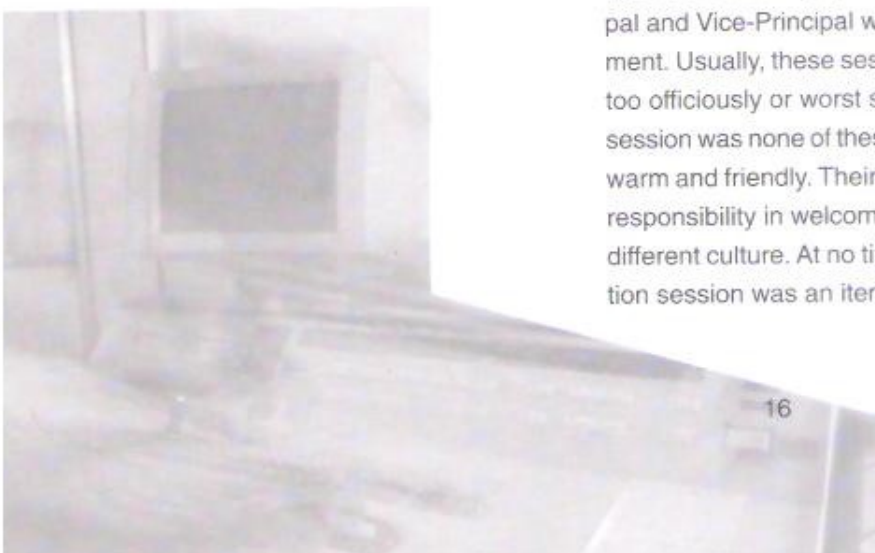
fulfilled. We were provided a detailed and organized portfolio of the school's organization, work plans and work flow in a unique "School paper bag". We were then briefed on the item's contents. Next, the Vice-Principal went on to lead the new teachers into a discussion on important education messages that have become part of the school management's philosophy, e.g. "the teacher as the key", "teacher empowerment", "creativeness in teaching" and "community of the school". I found this session a good way to initiate trainee teachers into the school philosophy because it allowed each one of us to examine what we felt was important in teaching before putting forth the school's philosophy in relation to our perspective. This soft-sell approach will work better with a new generation of teachers who are less likely to just accept ideas before examining and evaluating them.

Through the "selling" of management's philosophy, this session also clearly conveyed the management's expectations of me as a teacher. This, in my opinion, is crucial for any beginning teacher. He needs to know what his role is in the organization and how he is expected to perform to fulfill this role. In my case, it was a bonus that the school's beliefs of the role of the teacher were congruent with mine.

A trainee teacher's beliefs of a teacher's role is shaped by the idealism and theory that stem from teacher training. These beliefs in turn are often reinforced by positive messages from the media and the Ministry. It is therefore not uncommon for trainee teachers entering schools to have the belief that they are the "keys" in the education system and consequently are empowered to effect change. It is also not uncommon for these same teachers to encounter a different paradigm when they step into school.

I believe that this incongruence between the trainee teachers' belief of the role of a teacher and what they experience in school can often result in beginning teachers feeling being pulled apart by the different belief systems as they grapple with reality and attempt to establish a foothold in the system. Through my discussion with my graduating peers, I have found that some of them have discarded the sound and theoretical basis of their teacher training in order to align themselves with management expectations in the schools to which they have been posted. I fear that these peers run the serious risk of being sucked into the complacency of school systems that live by the axiom that "what works best will continue to work". This will ultimately result
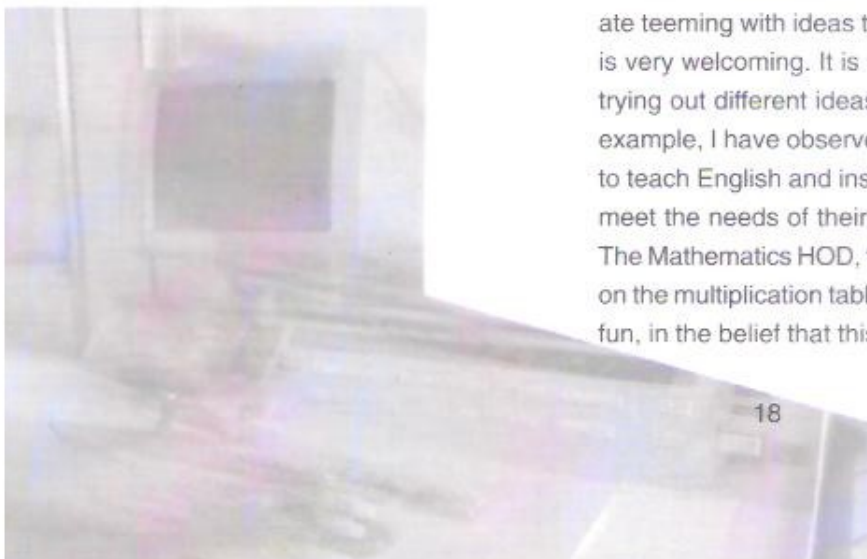
in these beginning teachers becoming non-reflective mediocre teachers doing things the way they were always done instead of being critical and constantly evaluating their work.

Others, on the other hand, are resisting the arcane and regressive school systems they have found themselves in by fervently holding on to their idealism. I feel that these teachers may become increasingly dissatisfied and disgruntled, as their expectations and reality cannot be reconciled. They may continually nitpick and "find fault" with their schools and eventually leave the system after their initial bonds. They will be a sad loss to the Ministry of Education.

I am fortunate not to be subjected to such stress, as the management's belief in a teacher's role is strongly congruent with the Ministry's and that which was imparted by my teacher training. Management strongly reinforces the Ministry's message that the "teacher is the key". They firmly believe in the empowering of teachers to bring out the best in their students. In fact, a large part of the follow-up briefing during the induction by the HODs was in relation to the support that they could provide, for example in terms of resources to enable beginning teachers to perform our tasks.

The positive stance of management on teacher empowerment comes together with management's belief of teacher accountability and responsibility. I believe this is a fair demand. If management expects teachers to be accountable then teachers should be given the leeway to teach, and be their own "managers" in the classroom. However, if management ties the hands of beginning teachers, then how can they be expected to be accountable if they have never been allowed to try? Most beginning teachers would appreciate this latitude. Unfortunately, not many enjoy this latitude that I had been given.

A by-product of the stance on teacher empowerment is a creative and adventurous learning school culture. As a fresh graduate teeming with ideas to try out and experiment, such a culture is very welcoming. It is not unusual for me to observe teachers trying out different ideas tailored to suit their own classes. For example, I have observed teachers do away with PETs material to teach English and instead come up with their own material to meet the needs of their classes. Even HODs get in on the act. The Mathematics HOD, for example, came up with a game based on the multiplication tables to make learning multiplication tables fun, in the belief that this would improve the mastery of multipli-

cation tables by weaker students. This spirit of creativity and dare to try new ideas is echoed frequently by the Vice-principal who extorts that "we do things differently at this school." I feel however, that it is more accurate to say "we do the right things differently in this school." It is difficult as a beginning teacher when surrounded by such creativity, passion and dare, not to be positively affected.

Continuing in the vein of the spirit of creativity, trying out new things and experiencing failures are seen as a learning opportunities. Prior to my first observation by the Principal and the Principal-in-training, I was told to try something different, something that was creative to enthuse the children to learn and think, even if it didn't work out completely. Of course, the lesson wasn't perfect. The post-lesson feedback was thus a learning experience where the Principal and Principal-in-training offered advice and discussed ways of making the lesson better and making it workable the next time. At the same time, the tone of this session was encouraging and positive. I believe that when a beginning teacher is provided this challenge and support to try their ideas out, as well as the tolerance of subsequent failures, a beginning teacher can only progress and learn as he constantly searches and "thinks out of the box" to bring out the best ability of children under his charge.

This creative school culture that frequently looks at different ways to improve was a very important factor facilitating my smooth transition as a beginning teacher. It served as an accepting and welcoming testing ground for new ideas and practices. It also provided a creative and experienced staff for a new teacher like me to bounce ideas off. A truly creative school culture looks beyond failure, ensuring that a beginning teacher who makes mistakes is ready and enthused to try again.

It is perhaps this strong belief in teacher empowerment and a creative learning school culture that is responsible for a confident and warm school staff. Teacher socialization is often a problem faced by new teachers in a school. The politics and coldness of a staffroom can be imposing and threatening to new staff. The policy of appointing a teacher mentor is helpful in this process of socialization. This socialization process is, however, made easier if staff are already confident of themselves and do not feel threatened by new staff. I found that teachers in this school are more than willing to show me the ropes. For example, teachers would give hints and suggestions from simple things like: how to organise my table and how to collect homework, to

I was told to try something different, something that was creative to enthuse the children to learn and think, even if it didn't work out completely.

important matters such as what to do on field trips and excursions. There never has been a question that someone wouldn't and couldn't help answer.

There is tremendous synergy between different groups of teachers, for example, the younger and older teachers, the newly graduated and the post-probation teachers and even supervisors and teachers. Teachers, young and old, within the same level often discuss practises and share resources such as teaching material and worksheets. Older teachers are receptive to new ideas and readily offer advice in a warm and caring manner to younger teachers. I have the great fortune of sitting next to a senior teacher. Far from being jaded and guarded as some cautious senior teachers can be, her passion to teach and consummate professionalism have been an inspiration to me daily. Her openness and readiness to share her wealth of experience has enabled me to balance my idealism and the realism of the true teaching world. Furthermore, I am also fortunate to have a supervisor who takes very seriously her duties to supervise my growth as a teacher. Her focus on the process of learning rather than just the product/outcome of learning, forces me, the teacher under her supervision, to evaluate the practical aspects of my teaching from a theoretical basis. However, her supervision extends beyond just teaching aspects, as she is also a teacher who makes herself available when I need to share experiences. This close-knit environment has gone a long way to ease my socialization into the school as well as smoothen the transition process.

How the transition of a trainee teacher to a full-fledged teacher takes shape is dependent on many factors. Factors such as a well-organized induction programme set the necessary framework for the success of this transition. Success of the transition is also dependent on other intangible factors that are related to school culture, such as the perceived role of teachers within the school system, its creativity and tolerance for failure. Finally, the human factor, or warmth of the school staff should not be overlooked in determining a successful transition.

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Thank God for Students!

Low Guat Tin

It was the season for Chinese *wayangs* and *getais***. One afternoon, I found myself face to face with a Hokkien* *wayang*. I walked briskly towards the stage because I enjoy *wayangs*. They bring back a lot of good childhood memories.

What I saw filled me with sadness. No one was watching the *wayang*, yes, not a single physical body was there. And this was staged just beside the market. The stalls in the hawker (food) centre were all doing brisk business but no one was interested in the *wayang*! I walked over to the provision store, bought a dollars worth of dried melon seeds, and like days of old grabbed a chair from the market and sat by the side watching the *wayang*. I was there for an hour. What was sad was the incongruity of the situation. There I was in my running gear, the lone soul sitting by the stage cracking away at my melon seeds. People who walked by paid more attention to me than the actors and actresses on the stage!

As I sat there watching and listening to the actresses I was shocked by a number of things. Firstly, the stage is really small, possibly one-third the size of those stages built in the heyday of Chinese *wayangs*. Secondly, all the actors and actresses on stage were females, whilst the musicians were all elderly men. Finally, I was shocked by the language used. Unlike the *wayangs* of the past, they spoke colloquial Hokkien and often were fairly crude. I was disappointed with the acting, but who can blame them? Hardly anyone watches street *wayangs* these days, so where is the motivation for them to act well, to do their best? That is why the title of this piece-thank God for students! All teachers have a ready, captive audience, an audience that must pay attention, an audience that seldom answers back. Whenever I teach, I have a class of adults eager to lap up all that spew out of my mouth (not that I am teaching such profound, exciting things but they must listen in case they are tested!).

** wayang: These were street performances by small Chinese opera troupes, especially popular during the 7th Month of the Chinese Lunar Calendar.
getai: This is the modern version of the wayang as the troupe will include performances by both male and female singers who would take requests for popular Chinese tunes from the crowd gathered round.
*Hokkien: a Chinese dialect group

Because we have an "audience", I feel that we owe it to our students to do our best, and I feel that if teachers join the teaching profession because they want to teach, then they should be *effective* teachers, and not settle for mediocrity.

The Six Cs for Successful Teaching

I attended a conference recently and one of the speakers (Tracy, 2000) spoke about the five factors which successful people possess, he called them the 5Cs. I would like to add a sixth C. For teachers to be effective, they might want to consider these 6Cs. In brief, allow me to examine each of the factors and highlight some of the elements.

The first C for success is *Clarity*. To me, effective teachers need to be clear about what they are teaching, what they want to teach. Clarity of lesson objectives, clarity about what they want the pupils to learn, clarity about their own goals are crucial. And by this I do not mean a list of specific instructional objectives. I can be clear about what I want without having to write SIOs or to follow SIOs laboriously. When we are clear about what we want, we can then go about getting it. Often, people do not know what they want and they end up not getting anywhere, as can been seen in this conversation between Alice and the Cheshire puss in Alice in Wonderland:

Alice:	*Chesure-puss...would you tell me please, which way I ought to go from here?*
Cat:	*That depends a good deal on where you want to get to.*
Alice:	*I don't care where...*
Cat:	*Then it doesn't matter which way you go.*

The second C is *Courage*. When teachers know what they want they must have the courage to pursue it. We must have the courage to teach differently, the courage to do things differently. If I want to change my students' mindsets, then do I have the courage to use "outrageous" strategies to stir, challenge, create the dissonance that I want? I know teachers who read this will jump to their own defense straight away and say, "Our principals or our HoDs will not allow us ..." Have you tried? Did you talk to them about it?

I have used all kinds of "weird" strategies and I must say I am proud of them. I am proud of the fact that these are strategies I have come up with, and I have not borrowed them from some

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textbooks written in the US or UK. The strategies I have used worked. Through them I have been able to stir, challenge and create the dissonance that I want. If I believe in something and I want it, I must have the courage to carry it out. I have used sarcasm, ridicule, humour to great effect. One class who bore the brunt of my sarcasm (however, this was done with a lot of sensitivity and love) gave me a farewell party as well as a card at the end of the Module. On the card they drew a swan wearing a crown with the words, "To our dearest 'Suan' Queen" (Suan being the Hokkien word for sarcasm). Let me give you a couple of quotes from the card:

I've learnt so much, words just can't describe my wealth in knowledge, especially "suan" language! Thanks a million! (...and this is written by the student who was fairly antagonistic at first)

Thanks for 'suaning' to wake us up! You've bought me a step closer to my dreams. In your own special way, you have made us a lot "smarter" Thank U 'cher!

Since the day I started teaching in the sixties, I have always used humour. I may be teaching a class of teenagers, or a class of academicians, and I will use humour when it is appropriate. I know of a number of people who frown on my use of jokes, cartoons, funny stories and the likes, but do I worry and stop using them? In Singapore, particularly among academicians, it is considered unscholarly to use this tool. To Korobkin (1988), humour "...was viewed as an unnecessary and undignified embellishment of the serious, class educational experience." Morreall, the humour philosopher (1983) recalled that "The traditional attitude of teachers towards laughter and humour...has been that they are frivolous activities that pull us away from what is important...if laughter and humour had any place at all, then, it was not in the classroom but outside..."

My strategy may be questioned by my colleagues, some may even believe that I am trivialising teaching, but if I believe in what I am doing, if I believe that humour is one of the most promising but least understood tool in the educators' toolbox and that there are many benefits when we use humour in the classroom, should I change my teaching strategy because of subtle peer disapproval?

The third C is for *Competence*. As teachers who aim to be effective, we need to be competent in what we do. We should

Clarity

Courage

Competence

Learning

The fifth C is **Complete Responsibility**. We have taught our students the 3Rs (writing, reading and arithmetic), it is imperative that we add the fourth R-responsibility. Today, I feel that it is essential to teach our young to take complete responsibility for their actions, i.e., they should be held responsible for the consequences. We should work at teaching them to be responsible citizens of this world. If people are responsible, this world will be a great place to live in, no longer do we need Green Movements, or as in Singapore, pass laws where parents can take their children to court. If we are responsible, then Singapore will truly be a fine country!

Teachers need to accept complete responsibility for the work they do. The word 'vocation' comes from the Latin word which means *'voice'*. A *vocation* is thus work we take on because we 'heard' a voice calling us to do it. As such, teaching, which is a vocation for many of us, should be done to the best of our ability.

The last C is for **Commitment to Care**. Teachers are, in a sense, caretakers of their students. Caretakers cannot take care of others unless they take care of themselves. My heart grieves for the number of dedicated, committed teachers who are burnt out. Of what good are they then? Some of those I have worked with have resigned because they were too stressed out. Many took up teaching because to them, teaching is a vocation. They are the "do gooders," they work hard, they are committed to their work, to their students and to their colleagues. They work long hours, often from dawn to dusk and when the school gates are closed behind them, they carry loads of papers home to mark. They have no time for other things, no time to smell the roses, to taste their food, to read for pleasure, or to reflect on what they are doing.

Good, dedicated teachers must make a commitment to care for themselves, then and only then, will they become effective. The need to *'sharpen the saw'* (Stephen Covey) is crucial. They need to exercise, to be exposed to life other than school, kids and papers, they need to take the necessary breaks to replenish their energy and to rest and refresh themselves ever so often. Holidays are "sandwiched" between term time for a reason. After every ten weeks of noise, rush, pressure, teachers are given a few days off for recreation, which to me, is the re-creation of our life.

Conclusion

Teachers need to be clear (**clarity**) about why we are in teaching, and we need to have the **courage** to say 'No' to some of the demands made on us. We must learn that it is okay to say 'No' to others, so that we can say 'Yes' to ourselves and in this way, we will be able to finish the marathon and not be burnout in our work. Guilt, which is a waste of energy, should not have a foothold in our lives.

We need to be **committed to care** for ourselves so that we can have time for **continuous learning** and become more **competent**. Yes, I believe we owe it to our students to take care of ourselves. How many times have I met grouchy, grumpy, angry or miserable teachers and the reason they are in such a sorry state is because they refuse to be cared for and they refuse to care for themselves. We should take **complete responsibility** of ourselves and ensure that we can finish this race well and at the end of our illustrious career to have the words "Well done, my good and faithful servant" whispered into our ears.

I am glad that whenever I teach, I have students sitting in my class, observing and listening to me. Unlike the actors and actresses at the *wayang*, I do have an appreciative "audience". And indeed I thank God for students, I thank God for the chance to have them in my class, for the chance to make a difference in their lives, just as they have made a difference in my life. Someone said, "We live in a world where our smallest act can have a profound impact."

Teachers from time immemorial have made significant impact on the lives of the children they teach. So, when you are depressed, think of the actors and actresses, think of the wayang, and thank God for your students!

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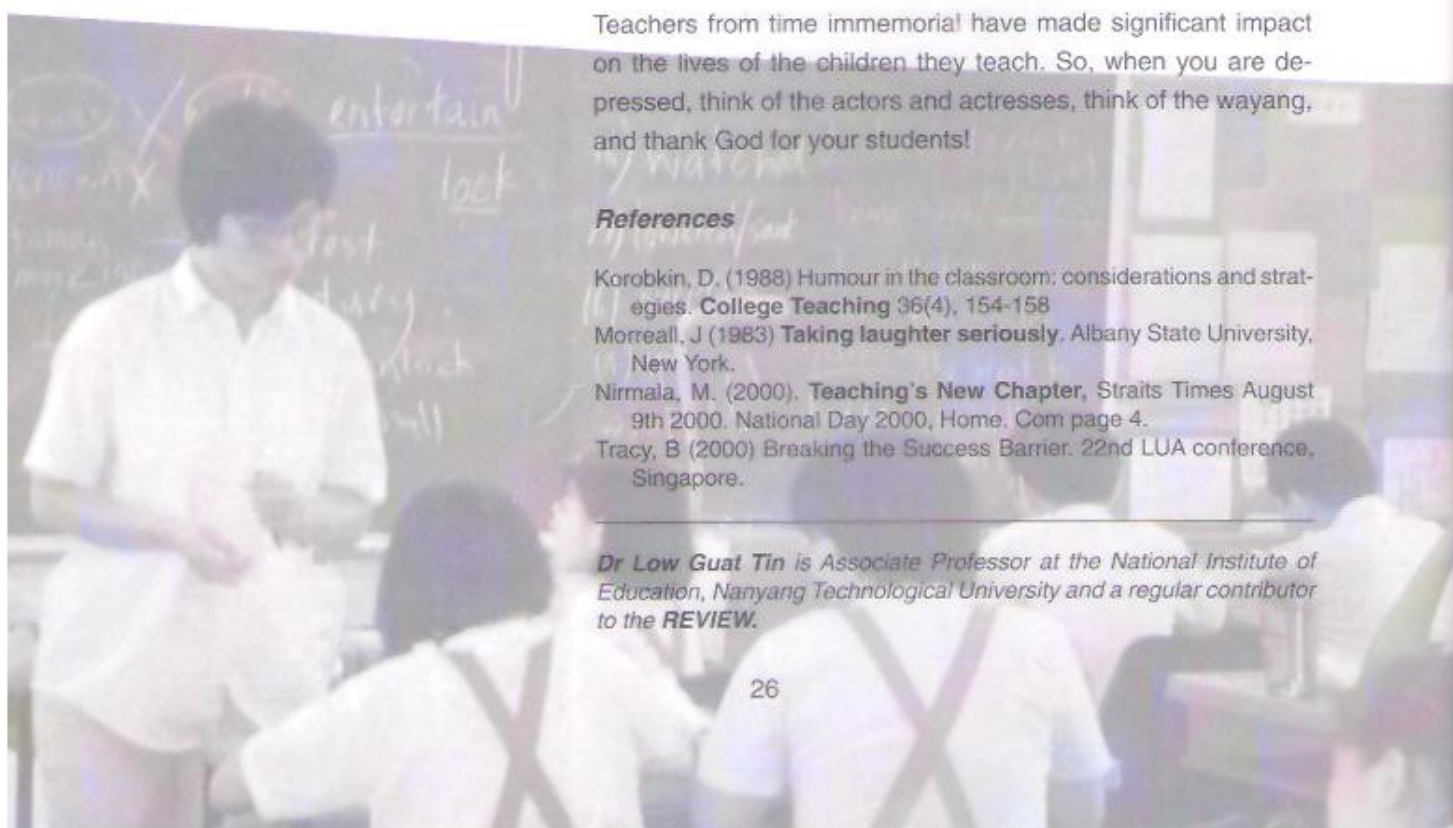
Learner-Centred Staff Training – *Fame Project* in Yusof Ishak Secondary School

Ms Wong Yim Kuan

Introduction

In the May/June issue of the Thrust for Educational Leadership, there was an article by Cindy Halbo who wrote on how adults learn. In her article entitled" Helping Adults Learn", some interesting research findings by Bruce Joyce and Beverly Showers (1988) were quoted. They are:

1. 5% of learners transfer new skills into practice as a result of theory alone

2. 10% transfer new skills into practice as a result of theory and demonstration

3. 20% transfer new skills into applied practice if theory, demonstration and practice are conducted within the training

4. 25% transfer new skills into practice if use of theory, demonstration, practice and feedback are provided during training

5. 90% transfer new skills into practice if theory, demonstration, practice, feedback and on-going coaching are provided as elements of a professional development programme

These research results echo well with the theory of andragogy by M. Knowles. According to Knowles, the theory of andragogy refers specifically to adult learning. He advocates that instruction for adults most focus more on the process rather than the content. Strategies such as case studies, simulations, and self-evaluation would be most useful. It is best that the instructor acts as a facilitator or resource person.

It is with this theoretical framework in mind that the FAME project was launched as a means of staff training.

Approach to Fame Project

FAME stands for " Fostering a Mathematics Environment" in which the pupils are doing mathematics. In Yusof Ishak Secondary, the learning of mathematics has always been a concern. Not so much as the pupils not doing well in the national examinations (in fact they do), but more on how to inject better understanding and more thinking into a subject that is needed from primary one to university admission. Moreover, the mathematics department has noticed some recurrent learning issues that need to be addressed. Thus FAME was born.

To start with, the entire mathematics department sat down to brainstorm and prioritize the problems identified. Some of these were:

1. learning gaps in mathematics concepts during the transition from primary to secondary school

2. hazy concepts

3. difficulty in handling algebra

4. difficulty in handling abstract reasoning

5. pupils not thinking enough

It was clear that the teachers needed training in alternative strategies to address the problems identified and to make mathematics more appealing. The teacher as the learner would be the focus, triangulating between the consultant as the instructor - cum- facilitator and the students.

Bearing in mind the adult-learning theory, the training of the teachers was organised into specific components.

1) The consultant conducted workshops based on the topics or areas of concern identified by the mathematics department. These workshops aimed to help the teachers improve their teaching-learning strategies, using more creative and pupil-centred approaches. In so doing, the consultant helped the teachers to shift their paradigms.

2) After the workshops, the consultant carried out demonstration lessons in actual classroom settings. The teachers attended these lessons as observers. They watched first hand, how the teaching strategies were applied, how the class was managed and how the pupils reacted to the new learning setting.

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3) The consultant made lesson observations in which the teachers applied their new-found knowledge in their classes.

4) Feedback sessions in the form of regular meetings followed. The teachers raised queries and clarified doubts. Lessons were discussed. There was on-going coaching and sharing.

5) The consultant sat in at the department meetings where teachers were scheduled to share what they had tried out in class.

6) The teachers were encouraged to share their lesson plans and do peer-teaching when needed.

7) Infrastructure support was planned and implemented to augment the training. The department worked together to set up the mathematics room. They also decided on the types and amount of manipulatives and graphing calculators to be bought. A duty roster was drawn up for the various classes to assume responsibility to do up the mathematics bulletin board.

FRAMEWORK FOR FAME PROJECT

ACTIVITY	CONSULTANT	TEACHERS
1. Workshops	• Conducts workshops • Facilitates learning • Coaches teachers	• Identify mathematics topics • Decide on number of workshops • Attend workshops
2. Demonstration lessons	• Conducts lessons • Assesses pupils' behaviour and participation	• Observe first-hand application of new knowledge • Assess pupils' behaviour and participation
3. Lesson observations	• Assesses application of new knowledge • Assesses pupils' behaviour and participation	• Apply new knowledge learned • Assess pupils' behaviour and participation
4. Regular meetings	• Gives feedback on lessons observed • Coaches teachers • Answers queries • Stimulates discussion	• Evaluate own learning and application • Raise queries • Clear doubts • Share knowledge
5. Department meetings (Sharing sessions)	• Facilitates peer sharing • Facilitates discussion	• Share lesson plans • Share strategies used • Share problems
6. Bulletin Boards	• Gives feedback • Makes suggestions	• Coach pupils • Draw up roster
7. Resources	• Gives suggestions • Facilitates purchases • Facilitates setting up of resource room	• Decide on what resources to buy • Decide on amount of resources to buy • Set up resource room

BENEFITS TO TEACHERS

• Take ownership of training
• Directly involved in decision making
• Ensure training needs are met
• First-hand observation of application of new knowledge
• Immediate application of new knowledge
• Evaluate own learning
• Given continual support to effect change by peers, consultant, management and environment created

FAME PROJECT 1999 ACTION PLAN

OBJECTIVE: TO CULTIVATE AND DEVELOP AN ENVIRONMENT WHERE STUDENTS SHOW EVIDENCE OF DOING MATHEMATICS

| | | | REVIEW | |
ACTIVITIES	RESOURCES	EVIDENCE OF SUCCESS	DATA SOURCE	WHO WILL COLLECT DATA AND WHEN
1. Workshops for all mathematics teachers: • Use of manipulatives to teach prime numbers and fractions • Teaching of algebra with algebra tiles • Co-operative learning in the mathematics classroom • Use of the graphing calculator	Consultant	Five workshops are conducted for the whole year. Techniques learned are used in classroom teaching.	Evaluation forms	Level Head (LH) (after every workshop)
2. Demonstration lessons for secondary one classes.	Consultant and secondary one mathematics teachers.	Techniques learned are used in the classroom teaching. Students' behaviour and participation.	Notes taken by teacher observers.	Teacher observers, consultant's own observations; student journals.
Lesson observation of teachers.	Consultant, Head, of Department (HOD), Principal.	Teachings learned are used in classroom teaching. Students' behaviour and participation.	Feedback by consultant, HOD, Principal.	Lesson observation feedback and reports.
3. Regular meetings on fortnightly basis.	Consultant and secondary one mathematics teachers.	Evidence of work done by pupils. Test results. Discussion at meetings.	Minutes of meetings Teachers' notes or journals.	Secondary one teachers after each meeting.
4. Sharing sessions among mathematics teachers at departmental meetings.	All mathematics teachers.	Ideas brought up or learned from consultant are used by teachers of other levels.	Notes taken of discussion. Minutes of meeting.	Mathematics teachers on a rotational basis. (once a month)
5. Bulletin board	Teacher i/c	New display on notice board every month. Quality of display	Photographs of display.	Teacher i/c and student photographer. (once a month)
6. Resources				
Purchase of resources.	HOD, consultant	Manipulatives kits for teachers, graphing calculators.	Record of usage of kits in the teachers' record book.	LH (termly)
Setting up of mathematics resource room.	HOD, consultant. mathematics teachers.	Room and mathematics teaching aids are used for teaching.	Record of usage of room and teaching materials in teachers' record book.	LH (termly)

The department collectively came up with a workplan and the tools for evaluation. It was agreed that a formative evaluation would be done six months into the project and the summative evaluation at the end of the year. This continuous review allowed the teachers the flexibility to check the direction in which the project was going; re-examine the types of workshops and activities to be carried out and to review to what extent the objective of creating a mathematics environment was met.

Benefits to Teachers

At the end of six months, a formative evaluation was conducted and an interim report submitted by the HOD of mathematics.

A total of 5 workshops were held for all the teachers in the mathematics department:

* use of manipulatives to teach prime numbers and fractions

* teaching of algebra with algebra tiles I

* teaching of algebra with algebra tiles II

* alternative assessment of mathematics

The teachers found the workshops especially useful in explaining abstract ideas in a concrete way. The teaching became more convincing and the teachers felt more confident in explaining the concepts. This was a move away from teaching the pupils to memorise rules and apply them without understanding the concept. It challenged the teacher's own understanding of the concept. In this way, the workshops offered many opportunities for the teachers to dig deep into their own knowledge and clear up any hazy ideas that they might have harboured all these years. It also helped the teacher to clarify doubts and misunderstandings that they might have inevitably learned as students.

The consultant taught two demonstration lessons and a total of 10 feedback sessions were held with the secondary one teachers. Such sessions were especially useful when they were held after the teachers had tried out the new teaching methods. There was a three-way interaction as the teachers not only learned from the consultant, but also from each other. The teachers found that they picked up many creative strategies. The teachers discovered how to explain things such as ' a variable'; and why the area of a parallelogram is 'base x height', while the area of a trapezium is' 1/2 (a+b) h'. These were not made known to them when they were students.

Formal sharing was conducted when the teachers shared how a topic was taught during the department meetings. More importantly, a great deal of informal sharing was done amongst the teachers in the staff room. The department never saw such a volume of informal sharing before. The teachers discussed the effectiveness of the new teaching strategies; the problems they encountered and to seek clarification regarding anything they were still unclear. The enthusiasm was palpable.

The mathematics bulletin board was richer in content and the pupils put in effort and time to make it so. The teachers decided that they needed to be more focused and better guided to make the display more attractive.

The mathematics resource room was well utilised at a rate of six double periods in a month. The teachers found the easy access of mathematics materials convenient. They also found the furniture arrangement conducive for group work. There was no time wasted to get the pupils to arrange the desks before and after the lesson.

Benefits to Pupils

At the student's level, the manipulatives helped the weaker pupils to grasp the concepts faster and with better understanding. However, as the teachers themselves were teaching topics that the pupils in the secondary one classes had already learned in the primary school, it proved to be an uphill task to convince the pupils to learn the concepts. Afterall, they were able to answer the questions by simply applying the rules. The paradigm shift was difficult for some of the teachers and most of the students.

A survey was conducted for 260 secondary one and secondary three pupils in the three different streams. In summary, they indicated in the survey that learning using manipulatives and models:

- was interesting
- make them pay more attention in class
- help them understand the topics better
- make them think and ask more questions

The pupils also indicated that they enjoyed the mathematics lessons; were excited when they could explain a concept and that they wanted to know how to explain concepts even though they might not be tested in the examination.

Sec 3 students learning how to solve non-routine problems using pattern blocks.

Difficulties Encountered

Change is always hard. The teachers found it interesting to re-learn some of the concepts. At the same time, they struggled with the re-learning and mastery of the use of the manipulatives to teach the concepts. The paradigm shift was difficult. It was tempting to merely teach rules rather than go deep into the fundamentals to understand the concepts. The teachers were further challenged as they encountered resistance to learning using manipulatives from some of the students. This was especially so when the pupils had already learned to apply the rules and were able to obtain the answers by simple application of specific steps. The teachers also faced difficulties in writing questions that were more open-ended, and which required explanations.

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Overall Assessment

Inspite of the initial difficulties, the overall assessment of the project, after 6 months, was good. The teachers recommended that they continued with the project with the following changes:

1. students' writing to constitute 5-10% of each class test

2. to include workshops on probability, transformation and mensuration

3. to include testing of pupil's concepts by explanation rather than computation alone

4. purchase more sets of manipulatives

Summative Evaluation

At the end of 1999, a summative evaluation was carried out as planned. Exercising flexibility, two more workshops i.e. Use of the graphing calculator and Teaching of problem- solving skills in mathematics were carried out.

The consultant taught a couple of demonstration lessons on using the graphing calculator to teach straight line graphs. It was an attempt to promote independent learning as each student was given a set of instructions and a calculator to learn the characteristics of straight-line graphs. Probably due to the novelty effect, the students were completely absorbed and on task. However, difficulties were encountered in following the instructions.

As the teachers grew in confidence, lesson plans were developed and collated. A total of seven topics were covered.

Sec 2 students using the graphing calculator to learn about straight line graphs. The lesson is designed for independent learning.

As recommended in the formative evaluation report, the students were assessed by way of explanations in addition to computation. Some of such questions included explaining why only one value of x in a quadratic equation was accepted; and what fractions are. Most of the students lacked the language and the ability to explain with clarity. There was a need for further exposure and guidance. At the

same time, the teachers also felt that they needed greater help from the consultant in setting such questions.

A gradual paradigm shift in the teachers was observed to be slow but steadily moving away from the usual method of using chalk and talk. Lesson observations revealed a mixture of methods being used and the increase of student-centred activities.

A one- and -a-half day of mathematics enrichment programme for nine secondary one classes wrapped up the FAME project for the year. It was carried out after the final-term examination. It was learning mathematics in a fun way for the students. It was learning how to design worksheets and improvise materials for the activities for the teachers. It was learning how to carry out the activities for the NIE trainees. The tripartite learning environment to do mathematics was enjoyable and truly enriching.

Further learning was carried out in an informal way when the students took ownership of the bulletin board. Under the teacher's guidance, they did research and designed activities and puzzles and riddles. They creatively displayed them using their computer skills.

Gradually, inroads were made in the way students learn mathematics. Feedback from the students had been positive. They found the lessons enjoyable especially the group work. They understood concepts better and they realised the importance of explaining the concepts rather than just getting the right answers.

The teachers' feedback was equally encouraging. Some of the comments included:

- the presentation of the concepts is new and the consultant's drive and enthusiasm inspired our teachers to impart our knowledge to our students

- it is truly a paradigm shift from a traditional classroom setting where it is teacher-centred to one that is student-centred

- the FAME project has been an eye-opener for me

- the concrete approach deepened my understanding of concepts that were learned and understood superficially long ago

- with my better understanding of the concepts in mathematics, I find it more meaningful and I can impart these concepts to my students with more conviction

- The FAME project comes in time to help us move away from the efficiency-driven education to one that is ability-driven where the process of learning is as important as the end result.

- In terms of test results, there was one definite telling case. Overhead pattern blocks were used to do revision on areas of similar figures for one secondary four class, while the other class was not exposed to the manipulatives. For the preliminary examination, 50% of the students in the class taught with the manipulatives got the answer correct while only 9.5 % of the other class got the answer correct.

The final recommendation from the mathematics teachers is to carry on with phase two of the project in year 2000. They have learned much and they are doing as much mathematics as their students are.

Ms Wong Yim Kuan is a former Principal, recently retired, from Yusof Ishak Secondary School.

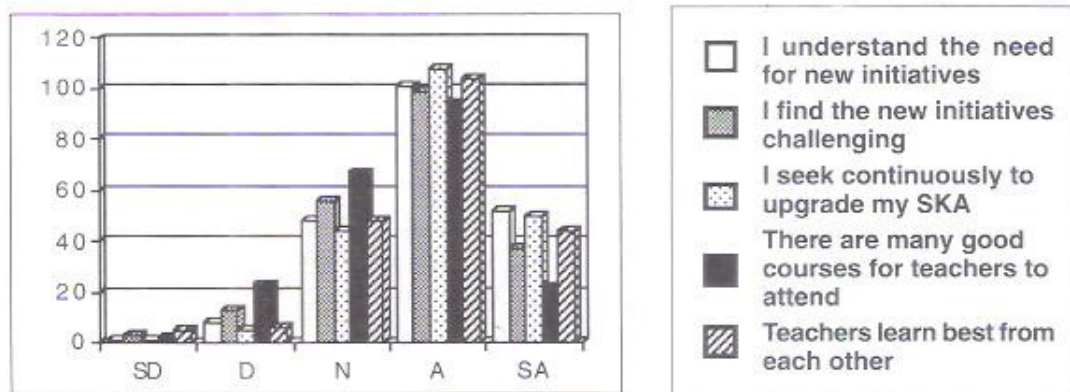# Promoting A Culture of Continuous Learning

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Rationale

Knowledge in many fields has increased rapidly and information has become more accessible due to globalization and rapid technological advances. Many of the skills relevant to today's world will become obsolete in the near future. Our Minister for Education, Rear Admiral Teo Chee Hean states that perhaps the most important thing for students to learn, is to learn how to learn.[1] Students must manage and apply information, think critically, solve problems and communicate ideas. What teachers know and can do makes a crucial difference to how and what children learn. Thus, teachers must continually examine their instructional practices to determine how best to develop their pupils' abilities to the fullest. They must have opportunities to discuss, think about, try out, and master new practices. These must become part of our expectations of teachers' roles and form an integral part of the culture of a school.[2]

Current Reality

A survey involving 208 teachers from 6 primary schools was conducted to get a feel of the current status of professional development in primary schools.

Legend:
- ☐ I understand the need for new initiatives
- ▨ I find the new initiatives challenging
- ▨ I seek continuously to upgrade my SKA
- ■ There are many good courses for teachers to attend
- ▨ Teachers learn best from each other

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[1] From a speech at the 30th International Management Symposium at the University of St Gallen Switzerland on 26 May 2000. *(The Straits Times Tues, May 30, 2000: Page 41.)*

[2] Sparks, D. & Hirsch, S. (1997). *A New Vision for Staff Development.* Association for Supervision and Curriculum Development. Page 2 of online version at http://www.ascd.org/readingroom/books/sparks97toc.html

The findings reveal that teachers are generally positive about the changes taking place in the education system. 73.5% of teachers understand the need for new initiatives, 65.4% find new initiatives challenging and 75.9% seek continuously to upgrade their skills, knowledge and abilities. 71.1% agree that teachers learn best from each other. Only 55.8% however, agree that there are good courses for teachers to attend.


Barriers to Staff Development
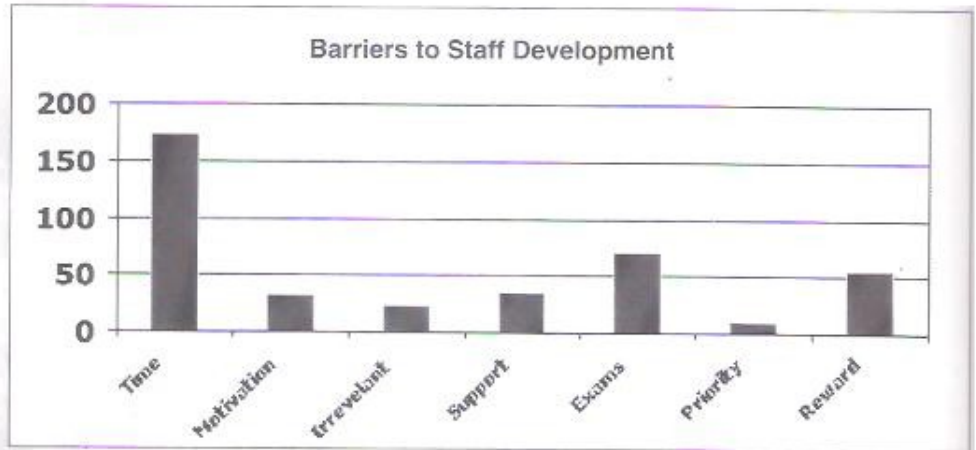
83.2% of teachers listed time-constraints as a major barrier facing staff development. 39.9% listed the emphasis on examination results and 26.9% felt that there was a lack of reward and recognition. 21.1% felt that courses were irrelevant and 15.9% lacked motivation. 12.5% felt that there was a lack of support for staff development.

2 – 20 years teaching
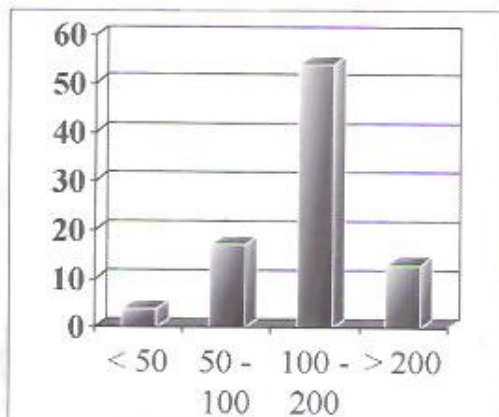
> 20 years teaching experience
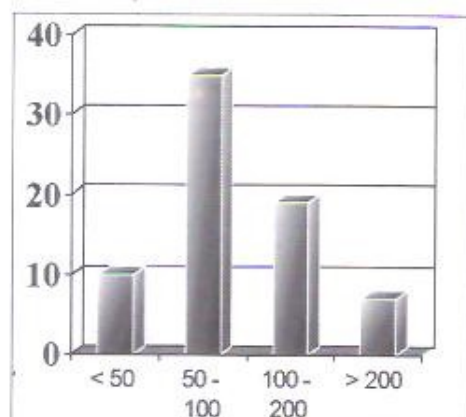
47.2% of teachers have less than 100 hours of official training. Of these, 61.4% have either less than 2 years or more than 20 years of teaching experience. Just how beneficial do teachers find their training? 6.3% say it benefits them 100%, 41.8% find it benefits them 80% while 31.3% say it is 40% beneficial. 18.7% say it is of 20% or less benefit.

How beneficial is the training?
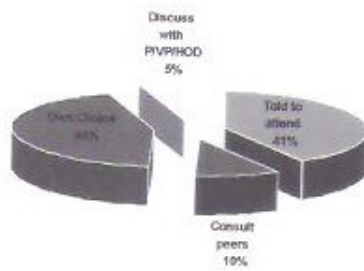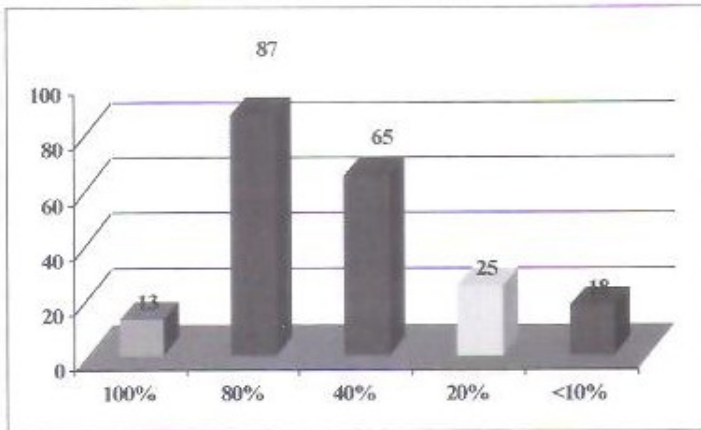

62.5% of the teachers decide on their own training while 58.2% are told to attend training. 13.9% consult their peers and only 7.7% discuss their training needs with their Principals, Vice-Principals or Heads of Department (HODs.) Respondents are allowed to pick more than one choice.

Teachers work in pairs or teams to design lessons

Teachers invite others to view their lessons

Team teaching is practised
Teachers share ideas through email or the network
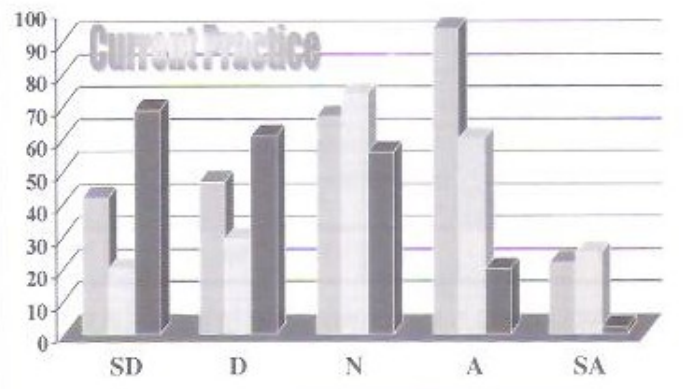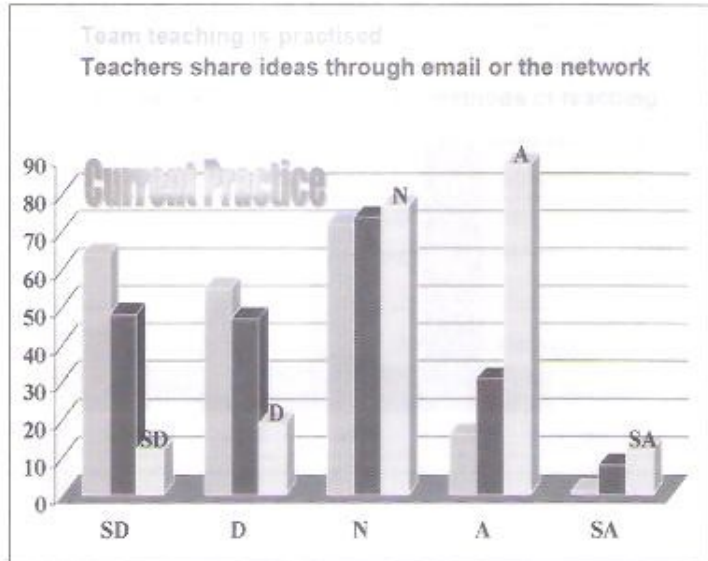
Although 71.1% of teachers say that they learn best from each other, the section on job embedded learning shows that not many teachers are taking full advantage of each others' expertise. Only 41.8% of teachers say that developmental supervision is practised in their schools. The figure is 40.8% for the pairing of a new teacher with an experienced one and 23.6% for working in pairs or teams to design lessons. 18.8% say that there is sharing of lessons during contact time. Only 10.6% say that there is observation of lessons conducted by peers. 8% say that team teaching is practised. 48.1% of teachers experiment with new methods of teaching. Given the fact that teachers are experimenting with new methods of teaching, job embedded learning will be beneficial in helping teachers perfect new approaches.

Edun/ Exp	'O' Level	'A' Level	Poly	Deg	Open U	Total
<2 yr	1	13	10	23	1	48
2-5 yr	0	6	2	21	1	30
6-10 yr	0	15	0	9	2	26
11-20 yr	0	21	0	7	4	32
21-30 yr	5	11	0	0	0	16
>30 yr	42	12	0	0	2	56
Total	48	78	12	60	10	208

An important finding in our survey is the fact that the composition of teachers in terms of academic qualifications is changing in primary schools. 75% of teachers with more than 30 years of experience are "O" level holders. Many of these teachers were recruited at a time which coincided with what is termed the second major phase of education in Singapore which began in 1978

– the drive for efficiency.[3] This was a time when texts and teacher aids were centrally written. Of all teachers with 20 or more years of experience, only 2 have an Open University degree. For teachers with less than 5 years of experience, 74% are either University or Polytechnic degree holders. Key personnel might like to examine how the 2 groups can benefit from each other's particular experience and expertise.

Given the findings of the survey, visits to three primary schools[4] and what current literature offers, let us examine how school leaders and other key personnel can create a culture of continuous learning among teachers.

i. Create a shared vision

John P. Kotter tells us that in failed transformations, you find lots of plans and programmes but no vision.[5] Principals should work jointly with staff to create a shared vision which clarifies the direction the school should take. This can take a simple form where teachers think about their current practices and envision where their school will be in 2 or 3 years time in terms of teaching and learning strategies, resources and innovative practices. They can then decide how to get there. Schools could make use of a more sophisticated tool like the technology profile tool developed by the North Central Regional Education Language Laboratory.[6] The profile tool shows a set of indicators for engaged learning and high performance technology. For each category, there is a description of the indicators that fall along a continuum. Schools can use the profile tool to compare current and future policies and practices with regard to engaged learning and technology performance. They then work out a plan to achieve their vision deciding on the staff development needed.

ii Work as a team

With a clear vision and purpose, John P. Kotter believes that a powerful guiding coalition should be formed where a leader and other key personnel come together to develop a shared commit-

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[3] From keynote address by Minister for Education, Rear Adm Teo Chee Hean at the Work Plan Seminar on Education in Schools: Towards Ability Driven Education at http//intranet.moe.edu.sg/speeches/161298a.htm

[4] Interviews were held with the Principals of Northland, Rulang and Rosyth Primary Schools.

[5] Kotter, John P. Leading Change: Why Transformation Efforts Fail. *Harvard Business Review.* Mar-April 1995. Page 62.

[6] The profile tool is downloadable at http://www.ncrtec.org/
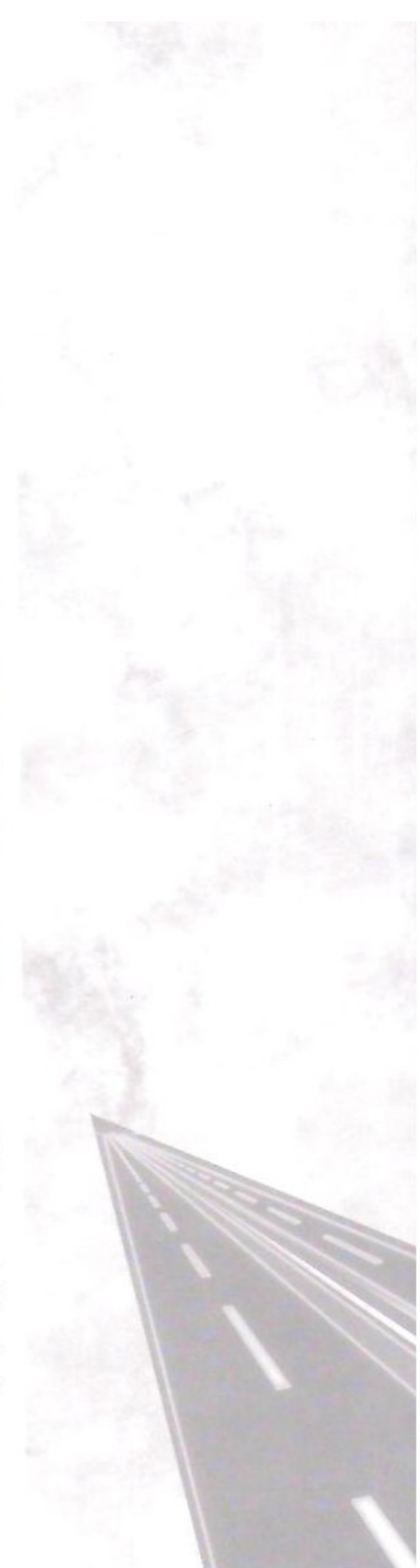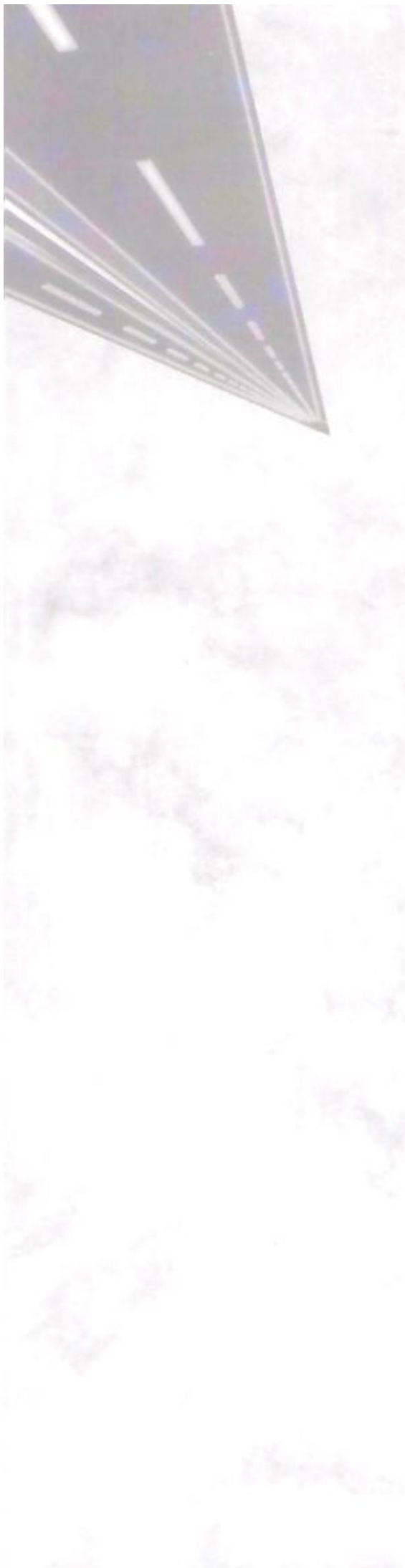
ment to excellent performance.[7] This has proven true in Northland Primary School where HODs for the instructional programme work very closely with each other and with the Principal to bring about change. In 1997, a 3-year plan was put in place to transform the school into a learning organisation where teachers seek continuous improvement through peer feedback and coaching. Teachers were encouraged and assisted to exercise their creative abilities to design quality lessons incorporating thinking skills and varied strategies. They were to capitalise on the use of information technology to make difficult concepts easy to understand. In the first year, the Principal and HODs shared ideas and strategies with teachers who also observed lessons conducted by the HODs.

In 1998, teachers began inviting others to observe and learn from them. Today, peer feedback and coaching is ongoing and has become part of the culture of the school where a collegial atmosphere prevails. The Principal believes that when leadership establishes expectations for teachers to learn and implement new learning in their classroom and models the expected behaviour, a school moves toward its goals more quickly.

iii. Take an interest – show teachers that you care

The survey revealed that 12.5% of teachers cite a lack of support for staff development. Only 7.7% of teachers consult their Principals, Vice-Principals or HODs about their training. Exactly 50% of teachers say that 40% or less of the training they attend is beneficial. Teachers can benefit from closer interaction with key personnel when deciding on their personal training for the year. At Rulang Primary, teachers list 9 courses which they feel they need, prioritise them, and discuss the suitability of the courses with key personnel. At Rosyth, teachers fill in a Training Needs Assessment Tool. A HOD for Human Resource Development works with teachers in planning their developmental needs. With the focus on ability driven education, the Principal has personally designed what he terms, Professional Enhancement Records. Teachers keep track of the learning styles and special needs of pupils. They then determine their training needs based on the needs of their pupils.

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[7] Kotter, John P. Op. cit. Page 62.

In our survey, the only significant difference we found in teachers with varying years of experience was that the majority of teachers who lacked motivation had less than 5 years of experience. According to Ralph Kessler,[8] this coincides with the Induction Phase of a teacher's career where he strives for acceptance by pupils, peers and supervisors and attempts to achieve a level of comfort and security in dealing with everyday problems and issues. Key personnel must bear in mind that teachers have different needs at various points in their professional cycle, and cater to these needs.

iv. Decide on the type of staff development that will meet your goals

In promoting a culture of continuous learning, it is useful to be continually aware that many forms of staff development exist to meet the needs of the organisation and the individual. One reference is Donald Orlick's four general classifications for in-service education which contain 15 different in-service models.[9] The **Organisation Based** models are based on the needs of the school and focus on solving problems or integrating new skills into the system. Training usually involves all staff and dates are marked in the school calendar. Two examples include the IT Training conducted for all schools in Singapore and the Work Improvement Teams. In the **Trainer Based Model**, selected teachers act as linking-agents or peer coaches helping to institute specific curricula or implement changes. **Individual Based Models** cater to the needs of the individual teacher based on his level of skills, knowledge and abilities. They also pay attention to his needs and concerns. **Role Based Models** focus on the teacher's role in the organisation and what he needs to know to perform his job satisfactorily.

Thomas Sergiovanni shares 3 models for staff development. In the *Trainer Based Model* teachers learn a specific skill from an expert. In the *Professional Development Model* teachers are helped to become inquirers, problem solvers, and researchers through focused study groups, collaboration with colleagues and long-term partnerships. In the *Renewal Model*, the emphasis is on building a caring community where teachers are encouraged

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[8] Ralph Kessler. Dynamics of Teacher Career Stages in Guskey T. & Huberman M. (1995) *Professional Development in Education: New Paradigms and Practices.* New York:Teachers College Press, Page 185.
[9] Orlick D. Staff Devt: *Enhancing Human Potential,* Allyn and Bacon, 1989. 107-127.

to reflect and to engage in conversation and discourse. This model is often neglected in the busy schedule of a school day.

v. Make staff professional development a key responsibility of HODs

Organisational goals related to classroom practices seldom get translated into action unless they are followed up at a departmental level with achievable gains and outcomes that can be evaluated. For example, let us look at a decision taken by many schools to place computers in the classroom to promote a station-based approach to learning. Such an approach would foster collaboration, develop thinking skills, address the needs of individual learners and increase motivation especially for children with a low attention span. Achievable targets could be set where teachers work in pairs to design such lessons to be carried out once a month for a start. Based on a needs analysis, departments can decide on suitable modes of staff development. Possibilities include a workshop conducted by an external agency, visits to schools with successful practices, introducing a buddy system where the more competent aid the less competent, meetings to critique lesson plans, modelling by HODs and senior teachers, peer observation, feedback and mentoring.

vi. Promote on the job learning

Our survey findings reveal that teachers are generally positive about changes in the education service and a majority of teachers seek continuous improvement. Staff development however, is closely equated with attending workshops and courses and logging the hours into the TRAISI[10] system. Job embedded training and learning is not widely practised in Singapore schools although 71.1% of teachers agree that they learn best from each other. Teachers could keep a log on job embedded learning and record the number of hours into the TRAISI system.

Learning is a continuous process that is multi-faceted. One-off professional development sessions such as a course or a conference do little by themselves to change action at school. Singapore schools can benefit from a study on eight schools designated as model professional development schools in the United States.[11] The West Ed study confirms that teachers need

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[10] Training Administration System on Internet introduced by the MOE as a one stop training administration system.
[11] Joellen Killen, Exemplary Schools Model Quality Staff Development at **http://www.nsdc.org/library/results/res12-99kill.html**

and value learning opportunities that are informal, varied and multi-faceted. In these schools, teachers are provided with opportunities to learn on the job and to interact with their peers. They valued informal learning above formal learning. Informal learning in these schools include teacher planning, grade-level or department meetings, conversations about pupils, reflection on pupils' and teachers' work, problem solving, assisting each other, classroom-based action research, coaching and supporting one another, making school-based decisions, developing assessments, curriculum and instructional resources. All these schools have a non-threatening, collaborative culture when experimentation and mistakes are accepted in the spirit of learning.

vii. Take advantage of every opportunity to learn

Peter Senge tells us that a learning organisation facilitates and promotes learning at all levels. Continuous learning means taking advantage of every opportunity that affords itself. Let me cite examples from a secondary school where I had the privilege of being attached to for two months. The school was interested in implementing a Responsible Thinking Programme.[12] Visits were made to two neighbouring schools which have implemented the programme. A school-based workshop was held for all teachers. Relevant websites provided examples from US and Australian schools which had implemented the programme. A discussion and brainstorming session was held to discuss the implementation of the programme. The school has a very successful House System which was featured in Newsteach. Teachers from one of the top schools in Singapore came to visit to learn about the system and to share their own ideas. The English HOD is new to the job. Attempts were made for an experienced HOD from a cluster school to act as her mentor. A senior teacher with more than 30 years of experience finds it difficult to cope with classroom management. He will work with a successful teacher of his own age from a school in his cluster. Instead of working in isolation for many years, such a teacher would have benefited from working in a collegial, nurturing atmosphere which promotes continuous learning.

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[12] This is a programme to improve discipline by having pupils reflect on their behaviour and to implement a plan to change their behaviour. For more information, see http://www.respthink.com/rtp.html

viii. Make time for staff development and learning

Finally, let's tackle the everlasting and age old barrier which teachers in our survey cite as the major barrier to learning and professional development – TIME. External workshops and courses usually last 3 hours and time is spent travelling to the venue. More time could be channelled to job embedded learning. Schools can come up with ingenious ways to beat time. At Rosyth, parents take care of pupils during contact time. At another school, no activities are scheduled for Wednesday afternoons as it is a time for teachers to meet for planning and discussions. Teachers can take advantage of technology for self-improvement. At Rulang, forums and discussion groups have been set up and teachers participate at their convenience. Distance learning and on-line facilitation is another avenue worth exploring. HODs in different schools can exchange lessons and ideas, discuss issues through email. Resources, strategies and ideas abound on the world wide web. Peer mentoring can take place through email. The possibilities are endless.

Conclusion

In conclusion, I leave this challenge from our Minister for Education with all Principals and key personnel; "For schools, the challenge is to harness the creativity of every single teacher so that we may bring out the best in every single student."[13] Creating a conducive, collegial environment for continuous self-improvement will require much planning, hard work and a change in mindsets but the benefits will be worth the effort.

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[13] From keynote address by Minister for Education, Rear Adm Teo Chee Hean at the Work Plan Seminar on Education in Schools: Towards Ability Driven Education at http//intranet.moe.edu.sg/speeches/161298a.htm.

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Teachers' Network: A new approach in the professional development of teachers

Nicholas Tang Ning

Like many other countries, Singapore is confronting the challenges brought about by globalisation and information technology. These two inter-related driving forces required the Ministry of Education to review the nature and definition of education in Singapore. The response is encapsulated in the new vision of **Thinking Schools, Learning Nation (TSLN)**. In his address to conference participants at the 7th International Conference on Thinking, Singapore's Prime Minister Goh Chok Thong (1997) spoke of this challenge and necessary response.

> The old formulae for success are unlikely to prepare our young for the new circumstances and new problems they will face.... We must ensure that our young can think for themselves, so that the next generation can find their own solutions to whatever problems they can face. Singapore's vision for meeting this challenge for the future is encapsulated in four words: THINKING SCHOOLS, LEARNING NATION. It is a vision for a total learning environment, including schools, teachers, parents, workers, companies, community organisations and government.

In the past, education systems were able to prepare students for a future and jobs that were relatively predictable. This is becoming increasingly difficult in the period of rapid change and so one of the main goals of TSLN is to develop *thinking* students who will be able to create their own future and to solve problems which may not even exist at this moment.

An analogy often used in Singapore compares our previous education system with a baton relay. In a relay, individuals are trained to the best of their ability in techniques, such as breathing and pacing, so that each will run a good race. Teamwork simply means that each individual learns how to pass the baton efficiently to the next runner. On the other hand, the new education system that Singapore is developing is akin to rugby. While it is still crucial that every player is well trained, it is impossible to predict each moment of the game. No coach could predict what each

model the behaviour. For example, it is not sufficient that teachers know how to use the computer or Internet. Teachers need to use the Internet in their daily work and life. Similarly, teachers cannot merely require students to work in teams or talk about how to work in teams, but also experience and learn to work in teams themselves.

This belief in the need for teachers to model the desired learning behaviour of a *thinking* student also implies that teachers must believe in and be engaged in continual learning and growth. TN promotes **reflection** as the key to the continual learning of an adult professional. But thinking and reflections, particularly to a practitioner, cannot be done in a vacuum. As such, TN also structures opportunities for teachers to create new knowledge and bring about change in their classrooms and schools.

Constructivism And Andragogy

Much of TN's activities are based on the principles of constructivism and andragogy. For example, experiential knowledge is important to teachers as they learn best when they are able to build on their existing knowledge and experience in order to construct new meaning rather than through the passive acquisition of knowledge. Generally, adults learn best when the new knowledge and skills answer their immediate and real problems. "Real learning environments provide opportunities to implement, monitor, evaluate and modify strategies in practice" (Tuner *et al.*, 1988). Job-embedded learning is "learning by doing, reflecting on the experience, and then generating and sharing new insights and learning with oneself and others" (Wood & McQuarrie Jr, 1999).

TN subscribes to Darling-Hammond and McLaughlin's (1995) belief that

> "Professional development today also means providing occasions for teachers to reflect critically on their practice and to fashion new knowledge and beliefs about content, pedagogy and learners."

Similarly, andragogy also suggests that adults are more fearful of exhibiting their ignorance than children. The traditional classroom environment often used in teacher training tends to prevent the teacher from asking that "silly" question and, thus, inhibits his learning.

Teaching Is A Lonely Profession

Much have been written about the "loneliness" of a teacher. He works alone in the classroom and has few opportunities to inter-

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act with adults and fellow professionals. This limits the opportunities for teachers to clarify their assumptions or extend their practice. The need to learn from each other is aptly described by the Singapore Minister for Education when he said that *"No one person, institution or economy has all the answers. We hope to tap on the collective wisdom of a community of learners. We want to borrow one another's lenses to see with new eyes and to establish learning webs."* (Teo Chee Hean, 2000).

Activities

These three considerations above led TN to design the following activities.

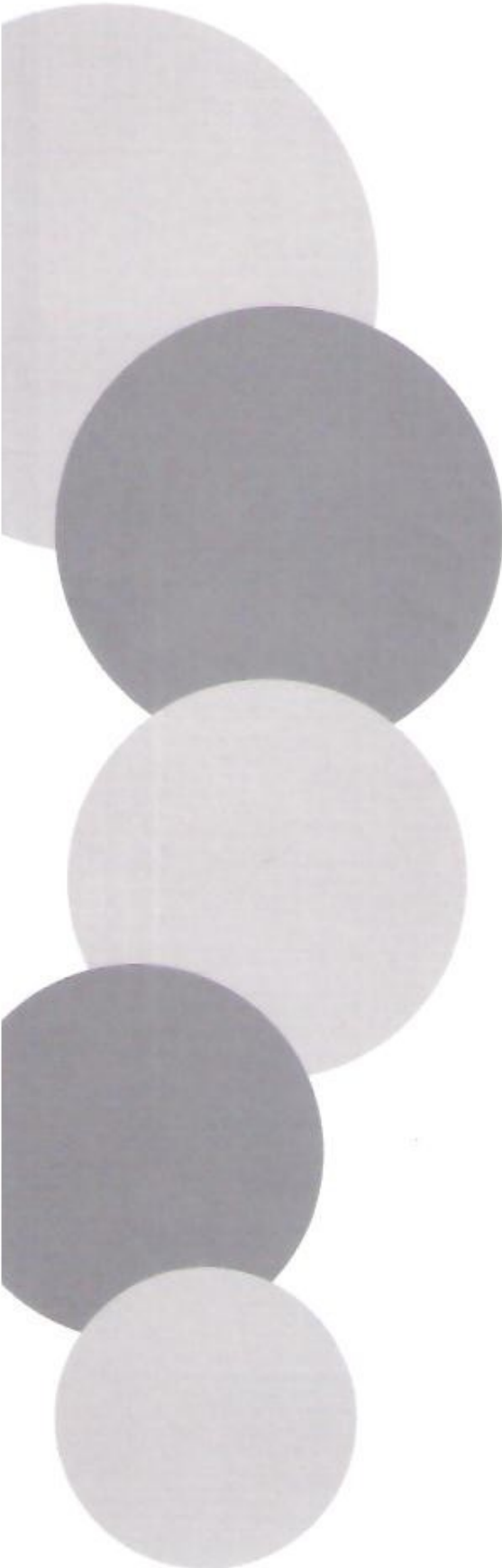- Teacher-led Workshops
- Learning Circles

Teacher-Led Workshops

Workshops at which teachers share their successful practices are not new and are widely practiced at the school or even cluster level. However, the teacher-led workshops at TN are unique in two ways. The first unique feature is the non-threatening and collegial atmosphere of the workshops. Care is taken to ensure that this atmosphere exists at all the workshops. This atmosphere is important because it allows the participants to challenge and clarify the suggestions made and even to propose alternative views and possibilities. The presenter is encouraged to, and do, share the problems and challenges he/she face in the classroom. The presenter does not pretend to have the all the answers or set himself/herself up as a "guru".

This free exchange of ideas has contributed to the second unique feature of the workshops, which is the development of the presenter. Many teacher-presenters have volunteered to conduct repeat workshops on the same or different topics because they feel that they have learned much from the participants. Officers from TN also work with every presenter to help him surface his *unconscious competence*. This consciousness is essential for the teacher to extend his knowledge and practice, and also to share in a meaningful way with the participants at the workshop. The workshops, thus, have helped to create an invaluable pool of master-teachers.

Conferences

TN also organises 2 conferences a year. The conference is a collection of workshops based on a common theme. There are two reasons for organising conferences vis-à-vis discrete workshops. The first is that it provides opportunities for keynote ad-

dresses that can expose teachers to the macro issues in education. The second is the sense of community among teachers and the networks that are established.

The sense of having a conference "by practitioners for the practitioners" also helps to enhance the self-esteem and public image of teachers.

Unlike other conferences, TN's vision and beliefs guide the structure of its conferences. For example, dialogue sessions are built into the programme immediately after each keynote address to allow participants to reflect on the key messages and implications. Reflection panels are also put up at the common areas to encourage participants to share their thoughts with other participants.

Learning Circles

Learning Circles (LC) comprises 5 to 10 teacher-practitioners who voluntarily come together to identify and solve common problems collaboratively, challenge assumptions and address real classroom concerns. The intention is always to improve their classroom practice.

The deliberations of the LCs are based on authentic, real and specific 'problem-based' needs or interests of members. Teachers in these circles are *co-learners* who reflect on their current teaching practices and seek ways to enhance their instructional effectiveness as classroom teachers. This concept of co-learners is strictly adhered to and everyone, regardless of their professional status and varied experiences, meet each other on the same platform and recognise each other's expertise.

The other concept that is promoted in the LC is that of a *"critical friend"*. A critical friend "seems to ask innocent questions or to make apparently harmless statements, but then new hypotheses come up, new horizons open up" (Losito et al, 1998:232).

> "A critical friend is a trusted person who asks provocative questions, provides data to be examined through another lens, and offers critique of a person's work as a friend. A critical friend takes the time to fully understand the context of the work presented and the outcomes that the person or group is working toward. The friend is an advocate for the success of that work."

> (Costa, 1993)

These twin concepts of *"co-learner"* and *"critical friend"* create an environment of trust and mutual respect in the LC. This environment is critical if members are expected to take risks by experimenting with new ideas and practice, surface their assumptions, expound their private theories and share their failures.

LCs generally adopt a five step process of reflection and inquiry, viz

- Identification of Problem;
- Plan;
- Action;
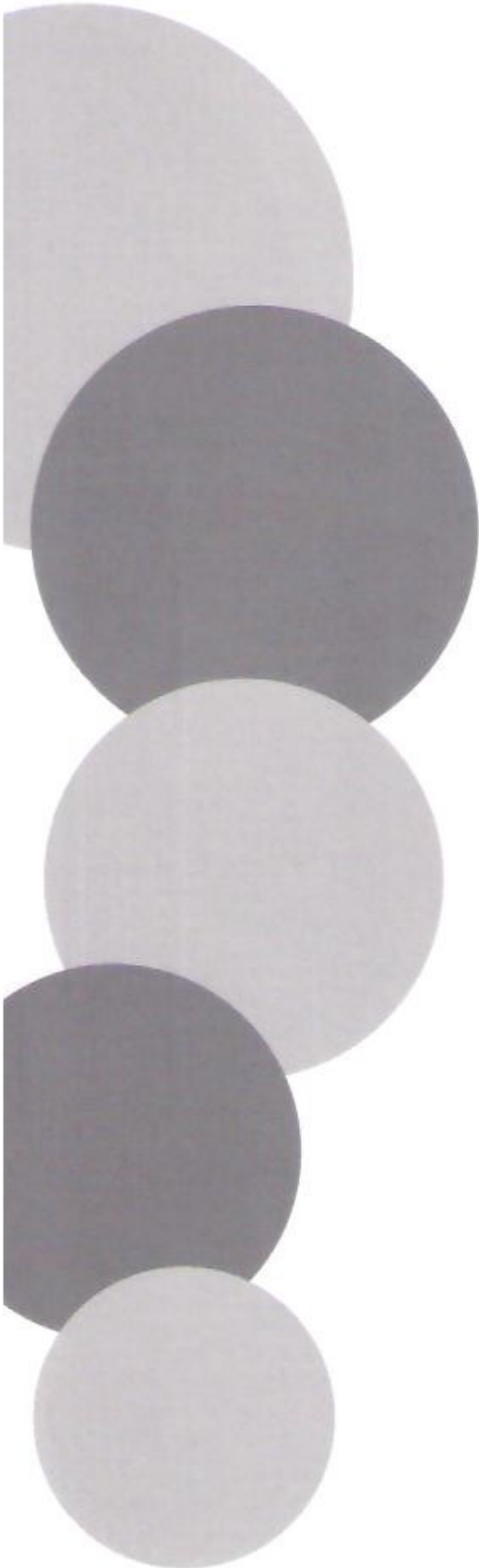- Observation; and
- Reflection.

The LC shares similar objectives (ie improvement at the workplace) and processes with other models such as Work Improvement Teams (WITs). However there are significant differences. Reflection and dialogue are incorporated at all stages of the LC cycle. More importantly the LC is more inward-looking and emphasises individual reflection and clarification of personal assumptions. On the other hand WITs tend to be outward-looking and focus on the solution of the problem. In other words, the LC is more concerned with the personal growth and the empowerment of the practitioner rather than the solution of an immediate problem.

Feedback from teachers involved in LCs suggests that not only do they value the warmth and collegial atmosphere but found it to be a powerful approach to learning.

> *"... a meaningful experience ... The LC has also made us more aware of our teaching and why we are doing it. Our dialogues in the LC forced us to examine our assumptions which otherwise we may not even have realised we had. The challenge to our assumptions was one of the powerful learnings we had in the circle as it really opened our eyes. We realised that it was our limitations that has kept the pupils from their potential ... It was one of the rare moments in which we were able to share our phobias and insecurities as well as enjoy the camaraderie and sense of affirmation with one another.*
>
> *The learning circle created a sense of oneness in that we spoke a common language when we spoke of techniques and everyone was eager to try new strategies and this was the culture that was evolving among teachers in the circle.*
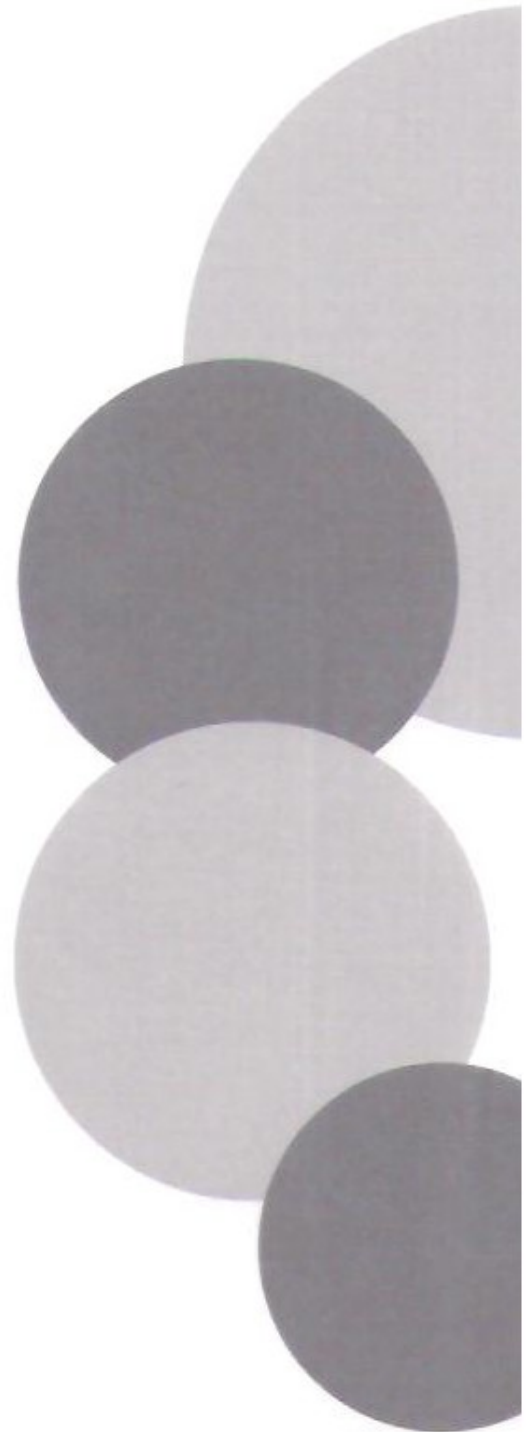
We were also unconsciously taking responsibility for developing a more specific curriculum that recognised the needs of our cohort and school culture. We took ownership of the curriculum and are now active developers of the curriculum."

Extract from Report 'Learning Circle: Strategies for Narrative Writing' at the Teachers' Network Professional Development Week (1999)

"I have no regrets about joining this learning circle unknowingly. I have learned much from the experiences shared by the various participants. They have also been generous in giving copies of the programmes they have produced. There are a lot of talents among teachers. They are also able to produce their own teaching resource and package if time is given."

Mrs Habibah Ismail, Member 'Learning Circle: Into the Internet' Extract from Reflective Log

"Teachers shared enthusiastically what went well with their lessons. All of us praise and encourage our own fellow teachers. We give one another moral support and that motivates us to go back to class, try something new and come back and share with our colleagues."

Ms Malar, Pioneer Primary School Extract from Reflective Log

"I have benefited greatly from the Learning Circle. It is a window to professional self-development. ...I've learnt a lot from the sharing sessions. We share ideas and materials. We support and motivate each other."

Mrs Wong Kok Wah, Mayflower Primary School Extract from Reflective Log

"... I would like to share that the learning circle has been a worthwhile experience as I am glad to be part of it, sharing with the rest of the teachers my teaching and learning experiences, just as I have learnt from theirs. It was one of the rare moments in which we were able to share our phobias and insecurities as well as enjoy the camaraderie with one another."

Ms Sharon Ng, Pioneer Primary School Extract from Reflective Log

Linkages

The two activities (workshops and LCs) support each other and this linkage is important in sustaining the viability and growth of the TN concept. Many of the workshops lead to the formation of LCs because they are open-ended and raised more questions than provided answers. Workshops are also useful in generating interests in new areas or strategies the presenters are developing and these lead to the formation of LCs. On the other hand, the LCs share their "findings" at workshops and conferences.

Conclusion

Traditional teacher training approaches are useful, to varying degrees, for the dissemination of specific knowledge and skills prescribed by a central authority. However, this can no longer be the dominant mode in this new world of rapid change and uncertainty where education is expected to produce *thinking* adults. The TN model continues to expose teachers to the "how to's" in teaching practice. But it also provides a platform for teachers to explore the "why's" of their practice and thereby empower the classroom practitioner. The result is a thinking teacher who not only welcomes change but who has the capacity to lead change. The teacher becomes a producer of knowledge rather than a mere disseminator of knowledge, an indispensable catalyst in the creation of the knowledge economy.

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Which Way To Reflection?

Norazida Johar & Mangayer Karasi

Initial Reflection

As Professional Development Officers with the Teachers' Network, we actively work with teachers in reflective practice through our teacher-led workshops and in collaborative inquiry groups, called Learning Circles.

Like our other colleagues, at the Teachers' Network we are motivated by the belief that reflection provides a rich source of continued personal and professional growth and agree with Killion and Todnem, (1991:14), that 'we owe ourselves this opportunity for renewal and revival'. Reflection, 'the practice or act of analysing our actions, decisions, or products by focussing on our process of achieving them', (Killion and Todnem, 1991:15), provides teachers with the opportunity to create meaning from and about their work. The end goal is to get '**into the habit of thinking about our experiences**' in order to 'maximise meaning from experiences' in teaching life.

When we first began work with the teachers we assumed that reflection was something teachers did all the time and so there was no need to ask the question how one reflected. This first assumption led to the next assumption that teachers, when they reflected, would be able to recognise the discrepancy between what they believed and what they did through their reflection. Another major assumption we held was that teachers through critical reflection would make the link between their practice and educational theories.

Then, as we worked with more collaborative inquiry groups, we observed that at the first three to four meetings teachers were frequently bothered by "How do I reflect?" and "What questions must I ask when I reflect?". Their writings, too, were observations of what they had done and how they felt about their lessons. This led us to question our initial assumptions about teacher reflection and how they reflected.

Planning

We decided to investigate how teachers reflected. We believed that by analysing the teacher reflective logs we would, in addition, gather information to infer on the types of questions teach-

ers asked of themselves when they reflected. We agreed to randomly look at some of the reflective logs written by members of Learning Circles. We decided to analyse the logs using the reaction-elaboration-contemplation sequence framework (Surbeck, Han and Moyer, 1991) as it was a practical framework.

A brief description of the reaction-elaboration-contemplation sequence framework would be useful here. **Reaction** refers to initial responses and it is sub-categorized into positive feeling (expressing satisfaction or pleasure), negative feeling (expressing dissatisfaction or complaints), report (stating facts), personal concern (personal matters that have an impact on pupils) and issues (educational related matters).

Elaboration is an expansion of the initial response and it is sub-categorised into concrete (expanding on the particular situation from which the reaction was derived), comparative (comparing first reaction with other classes) and generalised (referring to a general principle or a theory).

Contemplation refers to the initial reaction combined with elaboration as well as thinking about personal, professional or social / ethical problems. The subcategories include personal focus (thoughts about particular personal problems), professional focus (thoughts about educational problems) and social /ethical focus (thoughts about social, ethical or moral).

To make a distinction between what was reflection and observation we referred to Garnston and Wellman, (1994:1), who stated that reflection consists of a record 'of comparison of what we hoped to achieve and what we got, inferences about causal factors, an analysis of events'. Observation consists of processes that worked well or did not work, including a list of new data gained from the topic and record feelings, thoughts, attitudes and decisions.

Action

From the reflective logs of two secondary school teacher groups and two primary school teacher groups that were conveniently available to us, we randomly picked fourteen reflective logs. We analysed them by number of subjects and by number of occurrences under three main categories – reaction, elaboration and contemplation.
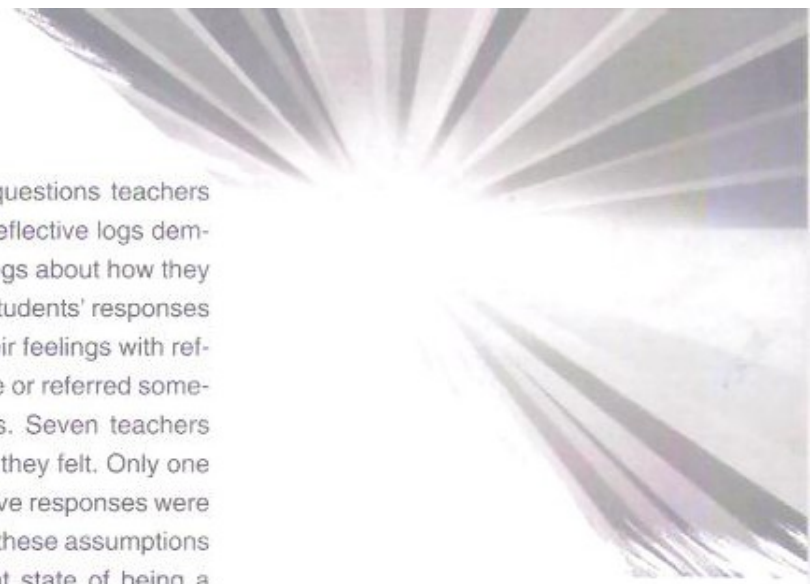
After the analysis, we studied the data to make a distinction between observation and reflection as defined by Garnston and Wellman's (1994:1). We noticed that the "reaction and elabora-

tion category" matched with Garnston and Wellman's definition of "observation" and the "contemplation category" fitted well with their definition of reflection. A summary of reflections by categories is found in Table 1.

Table 1 – Summary of Reflections by Categories

Category	Sub- Category	Number of Occurrences	
		S	O
Reaction	Positive feeling (satisfaction with themselves, others or the class activities)	13	22
	Negative feeling (satisfactionwith themselves, others or the class activities)	2	3
	Reporting (stating facts about event in class, does not include feelings)	5	6
	Personal Concern (personal matters that had an impact on students' participation	0	0
	Issues (educational issues, problems, knowledge or related matters)	6	8
Elaboration	Concrete (expanding on a particular situation from which reaction was derived)	7	11
	Comparative (comparing first reaction with other classes, earlier experiences)	1	1
	Generalised (referring to a general principle, theory or broad philosophical context)	0	0
Contemplation	Personal Focus (thoughts about oneself or a particular personal problem)	1	1
	Professional Focus (thoughts about educational problems, theories, teaching methods, future goals, attitudes as teachers, and views about learner abilities and nature)	0	0
	Social/ Ethical (thoughts about social issues, ethical problems or moral concerns)	0	0

Key: 'S' denotes Subject ; 'O' denotes Occurrences

From the analysis we inferred the type of questions teachers frequently asked. Thirteen, of the fourteen, reflective logs demonstrated teacher concerns about their feelings about how they conducted the lessons, or to the event, or to students' responses to their teaching. Six teachers elaborated their feelings with reference to a personal belief, educational issue or referred something that bothered them about the lessons. Seven teachers explained what caused them to feel the way they felt. Only one teacher went on to think about how her reactive responses were linked to her personal assumptions and how these assumptions affected or were responsible for her current state of being a teacher.

Observation

Our analysis indicated that teachers were not aware of the difference between observation and reflection. That teachers perhaps require some form of structure to help them reflect at the "contemplation" level. Teachers confirmed this in our dialogue with them.

The analysis also had implications for us as facilitators. It made us re-look at our assumptions and our role as facilitators of the reflective process in our Learning Circles. It brought home to us vividly about the types of questions that would facilitate critical reflection – make the link between teacher practice and educational theories. Now, the key question for us as facilitators was how to move teacher thinking from reaction/observation to contemplation/reflection. Our next concern was the question on what sort of support we, as facilitators of the learning circles, could provide for teacher reflections.

Reflection

Besides the reaction-elaboration-contemplation sequence framework by Surbeck, Han and Moyer, (1991) we also use other structures to guide teachers in their reflection. Hole and McEntee (1999) recommend the use of a protocol or guide for teachers to refine the reflective process. They believe that 'guided reflection is a way to find meaning within the mundane' (ibid: 35). The **Guided Reflection Protocol** is useful for teachers who choose to reflect alone while the **Critical Incidents Protocol** is used for shared reflection. The steps for each protocol are similar and both involve writing.

Guided Reflection Protocol (for individual reflection)

- collect stories
- what happened?
- why did it happen?
- what might it mean?
- what are the implications for practice?

Critical Incidents Protocol (for shared reflection)

- write stories
- choose a story
- what happened?
- why did it happen?
- what might it mean?
- what are the implications for practice?
- debrief the process

Besides using protocol, teachers can engage themselves in a sequential and cyclical practice (Smyth, 1989) that covers four aspects:

- describing (What do I do?)
- informing (What does this mean?)
- confronting (How did I come to be this way?)
- reconstructing (How I might I do differently?)

Where do we go from here?

There are various ways of doing reflection but what is crucial is it should achieve the dual purpose of developing the teachers' professional growth and add value to pupils' learning experience. We have introduced guided and structured support for teacher reflection and are consciously asking questions that make the link between teacher values, practice and educational theories. And for a while, we will let our labour take fruit to see a greater integration of contemplation in our teacher reflective logs.

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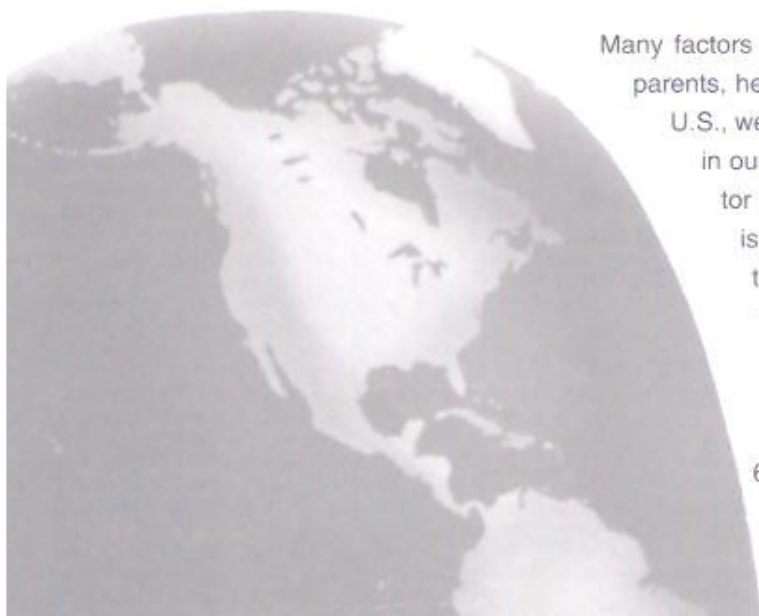# Meeting America's Teacher A Sharing of Teacher Devel

Terry Knecht Dozier

"Never has our nation been confronted with the task of teaching so much to so many while reaching for new high standards." (U.S. Secretary of Education Richard W. Riley)

In April 2000, U.S. Secretary of Education Richard W. Riley visited Singapore and attended the meeting of education ministers of the Asian Pacific Economic Cooperation forum. I was pleased to accompany him on this visit and to have the opportunity to discuss the challenges facing educators in Singapore and the United States. The challenges are not the same, in part because our nations and our approaches to education are different. For example, Singapore, being a city-state, has a centralized system of education. But the geography, Constitution, and traditions of the U.S. have created a system of education that is largely controlled at the state and local levels. In fact, the federal government contributes only 7 percent of total education funding; the rest comes from state and local taxes.

Even though there are many differences between our nations' systems of education, I believe we can learn from each other. With the Internet and more foreign exchange programs for educators, we have expanded opportunities to share effective practices. I hope this article will contribute to the exchange of information between American and Singaporean educators on one of the most important issues facing nation's today – how best to ensure talented, dedicated, and well-prepared teachers in our classrooms.

Many factors influence a child's learning, including teachers, parents, health, textbooks, class size, and home life. In the U.S., we have come to realize that the quality of teaching in our classrooms is the most important in-school factor for improving student achievement. Therefore, it is imperative that teachers are adequately prepared to take on the challenges of the 21st century, ready to help an increasingly diverse group of students meet high standards.
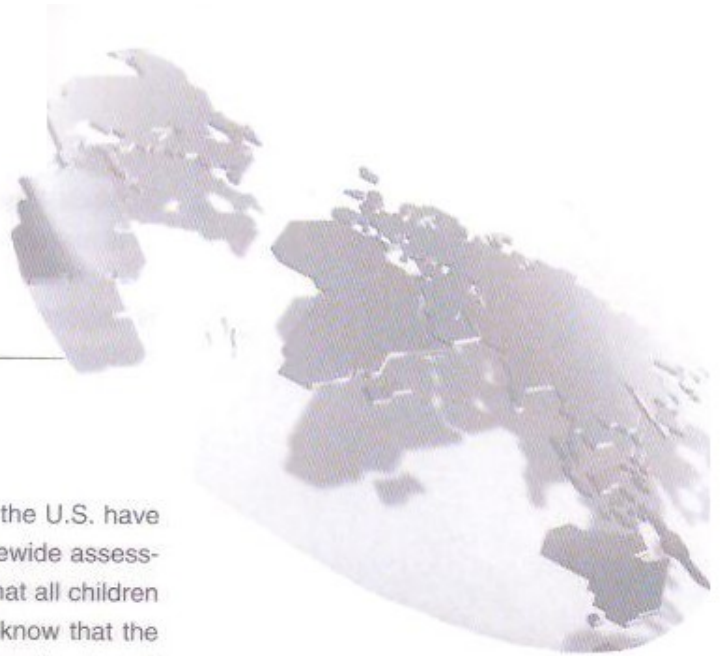
In recent years, policy makers and educators in the U.S. have raised expectations for students, introduced statewide assessments, and worked harder than ever to ensure that all children are challenged to meet high standards. But we know that the "high standards" movement will be an empty phrase without good teaching. If we expect all children to meet high academic standards, then all educators must have the capacity to teach to those higher standards. Simply put, it is time for the U.S. to make a serious commitment to the quality of our teacher workforce. Other school reforms will do little good without caring and competent teachers in our classrooms.

We now have compelling evidence of the power of good teaching. Research confirms what parents have always known – the teacher makes a critical difference in a child's learning. For example, a 1996 study in Tennessee tracked students who started out on equal footing in third grade. Some had good teachers in the following years; others had ineffective teachers. By the time they were in fifth grade, the average math score on a statewide test was more than 50 percentile points higher for the students with good teachers than for those with ineffective teachers.

With research confirming the importance of good teaching, it is especially important that the United States confront a number of serious problems in the teaching profession. The 1996 report of the National Commission on Teaching and America's Future (NCTAF) examined the teaching profession in the U.S. and offered a powerful explanation for the failure of earlier reform efforts. The NCTAF report identified five major barriers to successful reform that relate directly to the quality of America's teaching force:

1) **Unenforced standards for teachers.** The reality in U.S. classrooms does not reflect the state laws for teacher qualifications. More than 30 percent of newly hired teachers in the U.S. enter the profession without having fully met state licensing standards. Furthermore, many teachers are misassigned, lacking even a college minor in the subject they

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teach. Even worse, the problem of under-prepared teachers is most severe in high-poverty schools.

2) **Major flaws in teacher preparation.** There are more than 1000 institutions that prepare teachers in the U.S., and the number of teachers they produce each year can range from one to nearly 2,000. The teacher education programs also vary greatly in quality. The NCTAF report found "long-standing problems with traditional teacher education programs," including superficial curriculum and the teaching of theory separately from its application. As a result, many teacher preparation programs do little to help prepare students for the reality of today's classrooms. This problem may result from one simple fact: More than 50 percent of teacher educators report that it has been more than 15 years since they taught children.

3) **Haphazard teacher recruitment and hiring practices.** Because schools in the U.S. are controlled at the state and local levels, it is difficult to implement a comprehensive, nationwide strategy to attract talented candidates to the profession of teaching. While there is no universal shortage of teachers nationwide (and some school districts have many qualified applicants for every open position), teachers are not always in the communities and fields where they are needed. For example, high-poverty schools face the greatest challenges in recruiting and retaining new teachers. Most American communities have shortages in math, science, special education, bilingual education, and foreign languages. In addition, America's teaching force does not reflect the diversity that is transforming our nation's classrooms. Although 36 percent of our students are minorities, only 13 percent of our teachers are. Furthermore, despite increasing numbers of students whose first language is not English, the shortage of bilingual teachers remains severe. To make matters worse, teacher shortages are exacerbated in many communities by bureaucratic hiring practices that involve late budget decisions, cumbersome screening processes, and delayed notification of job availability.

4) **Inadequate induction for beginning teachers.** New teachers are given the toughest assignments: the classes that no one else wants to teach. Often, they are assigned extracurricular activities that other teachers do not want to supervise. Most new teachers are left to "sink or swim" without any type of support. Nationally 22 percent "sink," leaving the profes-

sion within three years. The figure can climb as high as 50 percent in some of our large urban centers.

5) **A lack of professional development and rewards for knowledge and skills.** Teachers are not given the ongoing, intensive professional development opportunities that are necessary for them to continue to learn, grow, and feel "renewed." First-year teachers are given the same work load and performance expectations as a twenty-year veteran. The profession has no clear career path that recognizes increased knowledge and skills and allows teachers to be "promoted" without leaving the classroom.

The problems with the current teaching force in the U.S. are daunting, and even greater challenges lie ahead. These challenges can be framed in terms of quantity, quality, and equity issues.

Over the next ten years, the nation will face a tremendous demand for additional teachers. Due to increasing student enrollments and teachers who retire or otherwise leave the profession, U.S. schools will need to hire more than 2.2 million teachers in the next decade. High-poverty communities face the greatest challenge in recruiting, supporting, and retaining new teachers. These communities will need to hire more than 700,000 teachers over the next ten years.

But even as we increase the number of teachers, we must improve the quality of teaching. Today, teachers must know and do more than ever before. The students in U.S. classrooms are more diverse than ever – by race, ethnicity, language, cultural background, and religion. In addition, teachers in regular education classrooms today are expected to teach students with learning disabilities, physical impairments, and other special needs. And good teachers must make extra efforts in order to teach students who suffer from inadequate nutrition, poor housing, a lack of health and medical care, and other adverse conditions at home. At the same time that the student population is changing and creating new challenges for today's teachers, society expects good teachers to incorporate technology into their classrooms, take on additional schoolwide responsibilities, and help all students meet higher academic standards.

Shortages of qualified teachers will affect our communities unevenly. Schools that face shortages of highly qualified teachers often are forced to hire less qualified teachers, which makes it

more difficult, if not impossible, to teach all students to high standards. The very students who need the best teachers because of the challenges that poverty brings to the classroom often have teachers who are the least qualified.

Our nation is faced with a serious question: Are we going to remain committed to high standards for all students, and thus for all teachers? Or are we going to retreat, as we have in the past when faced with the need to hire more teachers, by lowering standards for our teaching force? The reality is that the only way we can improve education is to invest in a quality teaching force and support teachers throughout their careers.

Many groups are working to improve teacher quality in America. For example, we have a consortium of 30 states, the Interstate New Teacher Assessment and Support Consortium, working together to develop performance-based assessments for beginning teachers. The National Board for Professional Teaching Standards has developed standards and assessments for highly accomplished teaching. The National Council for Accreditation of Teacher Education has created new standards for teacher education programs that focus on outcomes. Eighteen states are working with the National Commission on Teaching and America's Future to implement comprehensive reforms to improve the quality of their teaching force.

Our two largest teachers' unions, the National Education Association (NEA) and the American Federation of Teachers (AFT), are taking unprecedented steps to improve teacher quality. They held their first joint conference in September 1999 and chose teacher quality as their theme. Many NEA and AFT members are demanding that their union leaders focus more on professional issues. The fact that the unions have endorsed peer review – teachers evaluating other teachers – is a significant step forward, and some local leaders are even exploring new systems of compensation that would include more emphasis on performance and less emphasis on seniority.

For our part, the U.S. Department of Education is also providing more resources for improving teacher quality. Our goal is to ensure a talented, dedicated, and well-prepared teacher in every classroom, and our strategic plan includes four elements that can help us achieve this goal.

1) **Improve teacher recruitment, preparation, and retention.**
The Department is funding a new grant program to help states

implement comprehensive reforms in teacher quality. Grants will go to states that are strengthening licensing and certification standards, reducing shortages of qualified teachers, and holding colleges and universities accountable for the quality of their teacher preparation programs. Through a second program, the Department has established new competitive grants for partnerships between institutions of higher education and school districts with a great need for teachers. These grants will not only help districts recruit teachers, but also help colleges to improve teacher education by ensuring that teachers have the necessary content knowledge and teaching skills. In addition, the Department has funded the creation of a national job bank and teacher recruitment clearinghouse that is accessible through the World Wide Web.

2) **Promote Rigorous Standards for Teachers.** The Department is providing support to states to strengthen teacher licensure and develop performance-based assessments for the initial licensing of teachers. We are also funding the work of the National Board for Professional Teaching Standards, which has created voluntary standards that assess highly accomplished teaching. By offering advanced certification, states will be able to identify and reward the very best teachers.

3) **Upgrade Professional Development.** The Department is backing new legislation to support high-quality professional development that is intensive, collaborative, and content-focused. The good news is that almost all teachers in America get professional development. The bad news is that it is the wrong kind of professional development. A recent survey of U.S. teachers found that they do not feel "very well prepared" to address the realities of today's classrooms: students from diverse backgrounds, students with disabilities, technology, and new academic standards. Teachers are still receiving less than eight hours of training in various areas, which is not sufficient to improve their teaching. To help communities understand the kind of professional development teachers need, the Department created the National Awards Program for Model Professional Development. The National Awards Program identifies schools and districts that have implemented high-quality professional development that leads to increased teacher effectiveness and improved student learning. For the U.S., this is a very different way of thinking about evaluating professional development, focusing on evidence of results, rather than participation or teacher satisfaction. The work of

these award-winning schools and districts is spread through our web sites, publications, and conferences.

4) **Strengthen School Leadership.** Recognizing that teachers are most effective in schools with strong principals, the Department supports new legislation to develop innovative approaches to recruit, prepare, and support principals as instructional leaders. We are studying leadership in our nation's best schools so that other schools can benefit.

Because the federal share of education funding in the U.S. is small, we need to invest wisely to implement the four steps of our strategic plan. At the Department of Education, we believe that one of our most important functions is to support research, development, and dissemination of effective policies and practices for improving teaching. The Department also collects data and reports statistics. For example, Secretary of Education Richard Riley's biennial report on teacher quality analyzes the qualifications of our teaching force and their professional development opportunities. Reporting on our nation's teacher quality challenges and sharing what research tells us about promising approaches to improving teaching, are important ways in which the federal government helps states and local communities address their teacher quality challenges.

As our longest serving Secretary of Education, Secretary Riley has great respect and a tremendous influence on education in the U.S. He has used this influence to challenge states, districts, and the higher education community to change their outdated and bureaucratic system of recruiting, preparing, and supporting teachers. He also has reminded Americans that while children are 20 percent of our population, they are 100 percent of our future. Because every child matters, every teacher matters. Americans have taken his words to heart. With his leadership and the continuing hard work of educators, parents, and federal, state and local officials, I am confident that we can meet our teacher quality challenges.

Terry Knecht Dozier is the Special Advisor on Teaching to the U.S. Secretary for Education, Richard W. Riley.

A Systemic Framework for Professional Staff Development in Schools

Woo Yoke Yoong

Rationale

The necessity of riding the knowledge-based economy has given impetus to Professional Staff Development in schools. Never before in the history of education in Singapore have schools been faced with so many different activities related to professional staff development (PSD). Along with the increased activity has come increased complexity. This paper describes the complex PSD scene in many schools in Singapore. Common approaches to PSD and problems will be identified. A systemic framework which will enable schools to integrate the various PSD-related matters into a holistic, interrelated, big picture will be proposed.

Increasing Complexity – PSD in Schools Today

A catalyst for PSD in schools is MOE's guideline of 100 hours' professional development that every teacher should receive in a year. Along with this generous provision has come increased accountability. The effectiveness of every school's PSD programme will be evaluated using the criteria and indicators set out in MOE's School Excellence Model (SEM). Three out of the total of nine SEM criteria contain indicators for appraising staff development and staff competence. These indicators are listed in Table 1.

Table 1: SEM Indicators Used To Appraise The PSD Programme In Schools

ENABLER CRITERIA	INDICATORS
1. Leadership	1.1.4 How do school leaders promote a learning environment?
3. Staff Management	3.2.1 How does the school determine the training and development needs of the staff?
	3.2.2 How does the school ensure the implementation of its staff training and development plans?
	3.2.3 How does the school review professional development programmes and implement improvement?
RESULTS CRITERIA	**INDICATORS**
7. Staff Competence and Morale	7.1.1 Are staff adequately trained to meet the requirements of their duties?

In addition, an assessment of the quantity and quality of staff development received by each teacher forms a portion of the annual Staff Appraisal Exercise at the end of every year. Out of the three types of staff appraisal forms that schools have to fill, two types of forms have sections requiring either the teacher or the reporting officer to fill data related to PSD. i.e.

- the Work Review Form
- the Staff Appraisal Report (Development) Form for appraising the individual teacher's CEP or potential for career development (see extract in Table 3)

To add to the complexity of the PSD scene in schools, there is MOE's Staff Training Branch's *Training Framework for Teachers* (Table 4) which spells out the developmental roles or career milestones of teachers and recommended dimensions of training. The Training Administration System on Intranet (TRAISI) is another initiative from MOE. Many teachers do not understand how TRAISI can help them in their own professional development. As they grappled with their computer passwords and user IDs to gain access to TRAISI, some teachers have misconstrued TRAISI as yet another IT-related initiative that they have to cope with.

Typical Approach to PSD in schools

Currently, the typical approach to PSD in many schools is piece-meal and ad-hoc. The Principal sets the direction by deciding on the major school-based training for the year. When circulars and prospectuses arrive from the various branches of MOE or professional organisations or private vendors, the Principal/VP/HOD will nominate teachers based on their perceptions of what is good for the teacher and how the teacher can contribute to the goals of the school. For many teachers, PSD is a matter of meeting the 100-hour training target set by MOE and recording the hours in their Staff Training Records every three months and in their Work Review Forms at the end of the year.

The various aspects of PSD appear to teachers as piece-meal, stand-alone events. Each workshop, coaching session or MOE initiative is seen as an additional layer – a perception that contributes to the stress level of teachers. Not many teachers see the interconnectedness between their own PSD experience and what is happening in their school as a whole.

There is a need to reframe PSD so that there is coherence in the complexity. A systemic framework that integrates all existing PSD-

related matters into an interconnected whole will give teachers and administrators the big picture.

A Systemic PSD Framework

The systemic framework developed by Ben Harris (1988) can be adopted to provide the big, holistic PSD picture to school administrators and teachers. (See Chart 1).

Chart 1: Professional Staff Development as a System (Ben Harris, 1988)
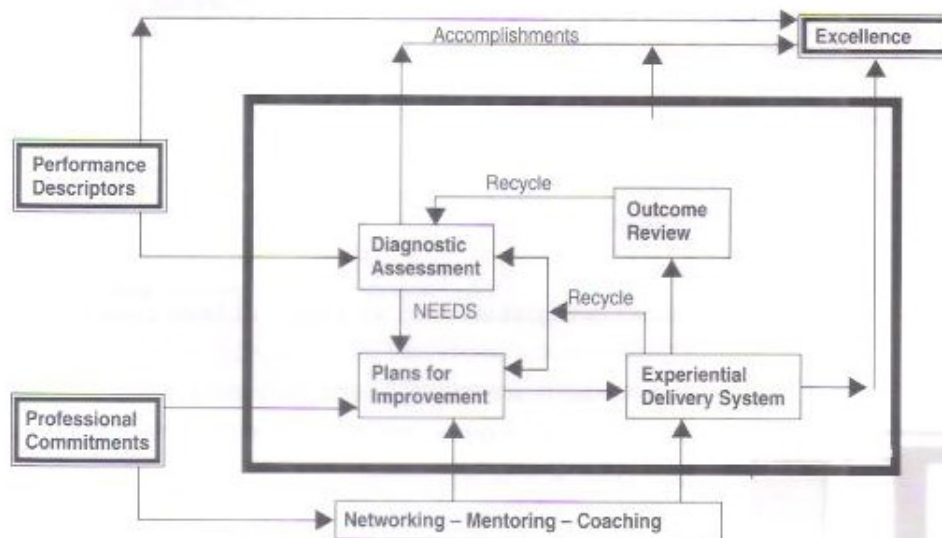
Performance Descriptors and *Professional Commitments* of staff are prerequisites that provide the inputs for the functioning of the PSD system.

The large, bold rectangle represents the formal PSD system. This is composed of four sub-systems. *Diagnostic Assessment* leads to *Needs* analysis and *Plans For Improvement.* The plans are translated into the *Experiential Delivery System* consisting of workshops, courses, seminars and other formal staff development programmes. The *Outcome Review* of the various staff development activities will be recycled in a feedback loop and used as the basis for further diagnostic assessment. The *Networking, Mentoring, Coaching* sub-system relates to the formal PSD system in a more informal way by facilitating improvement planning and adding to the staff development experiences.

The recycling capability of the framework will enable the school to learn from its PSD mistakes and build on its PSD strengths to accomplish excellence.

Systemic PSD – Integrating the School Excellence Model Indicators

The SEM indicators can be integrated into this systemic frame-work. In addition to the SEM indicators in Table 1 which are used to evaluate the school's PSD programme, there are other SEM indicators (see Table 2) which can provide inputs to the process of planning the school's PSD programme.

Table 2: SEM Indicators which are indirectly pertinent to PSD

| ENABLER	INDICATORS
9. Key Performance Results	What are the school's achievements in relation to the students' 9.1 cognitive development? 9.2 physical development? 9.3 aesthetics development? 9.4 social and moral development?
2. Strategic Planning	2.1.1 How does the school take into consideration internal factors (e.g. staff capabilities, internal expectations and needs) in its strategic planning process? 2.2 What are the school's operational goals?

Chart 2 shows how the SEM Criteria and indicators listed in Tables 1 and 2 can be integrated into a systemic PSD framework.

Descriptors of the school's *Key Performance Results* in the cognitive, physical, aesthetics and social-moral development of its pupils (SEM Results indicator 9.1, 9.2, 9.3, 9.4) can provide the prerequisite inputs for *Diagnostic Assessment* and needs analysis. For example, if the school's SEM scores are low in the cognitive development of pupils (SEM Indicator 9.1), the school may decide to accord priority to staff development in pedagogy.

Another SEM criterion which will provide inputs to shape PSD *Plans For Improvement* and influence decisions about *Networking-Mentoring-Coaching* is Criterion 2. Specifically, any meaningful planning for PSD has to take into account:

- the school's strategic plans (SEM Indicator 2.1.1)

- the school's goals (SEM Indicator 2.2)
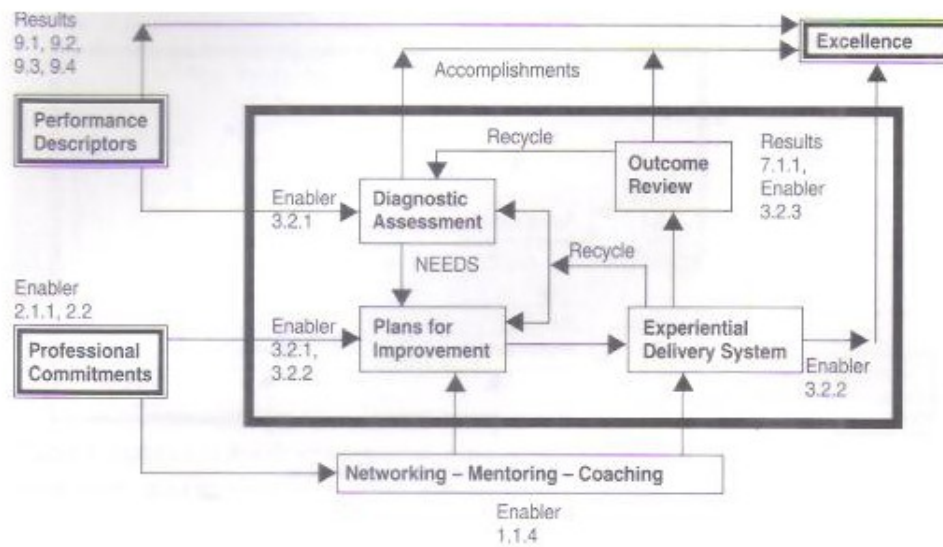
The following SEM Indicators for Staff Training and Development can also be integrated into Ben Harris's sub-systems Diagnostic Assessment, Plans for Improvement, Experiential Delivery System and Outcome Review:

- How the school determines PSD needs of staff (SEM Indicator 3.2.1)

- How the school implements its PSD plans (SEM Indicator 3.2.2)

- How the school reviews its PSD programmes (SEM Indicator 3.2.3)

- How school leaders promote a learning environment e.g. through coaching and mentoring (SEM Indicator 1.1.4)

- Are staff adequately trained to meet the requirements of their duties? (SEM Indicator 7.1.1).

Systemic PSD — Integration of Staff Appraisal, Teachers' Training Framework & TRAISI

The Ben Harris (1988) framework can also be used to explain to Heads of Department and teachers how Staff Appraisal, the Teachers' Training Framework and TRAISI are parts of the same systemic PSD picture. Putting these together will further facilitate the emergence of a coherent picture where events are interlinked and seen as part of a common process. See Chart 3.

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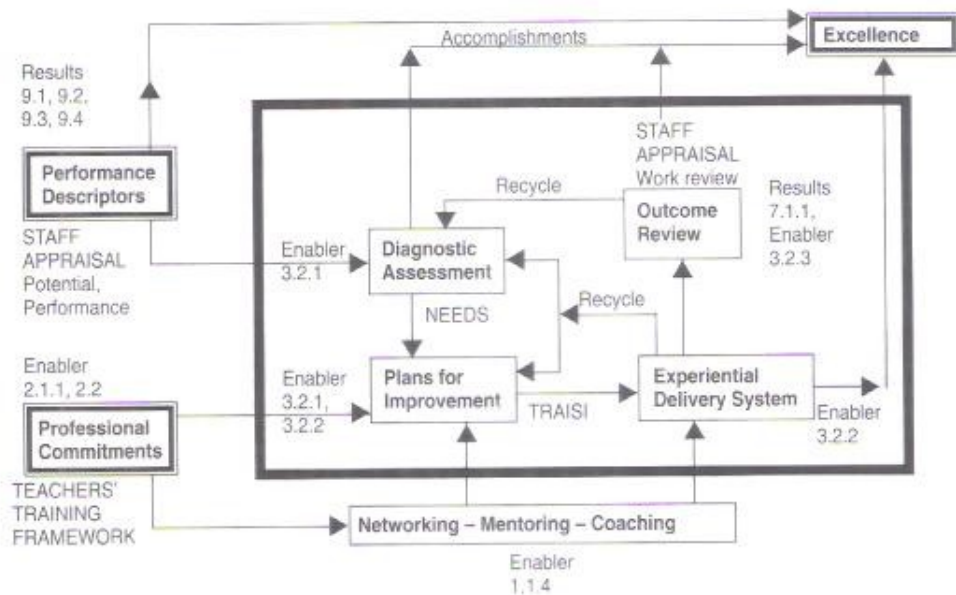
For example, information on the school's good or poor performers gleaned from the annual Staff Appraisal Exercise will help the school identify areas of need in the *Diagnostic Assessment* sub-system. Teachers with high potential can be stretched with more challenging responsibilities involving job-embedded learning and poor performers may need more training or coaching.

The process whereby teachers review their work and the usefulness of the training received in Sections B, E and F of their Work Review Form (part of annual Staff Appraisal) at the end of the year, fits into the *Outcome Review* sub-system.

In addition, Section D of the Staff Appraisal Report (Development) Form requires Reporting Officers such as HODs, VPs or Principals to recommend future development directions of their subordinates (See Table 3). In doing so, he or she is providing information for a fresh cycle of *Diagnostic Assessment* for the next academic year. This loop-back process can develop the mindset to continually examine how the PSD system is working in the school.

Table 3 – Extract from Staff Appraisal Report (Development) Form

D. DEVELOPMENT
Recommend possible development directions. If officer has reached
CEP, indicate possible lateral moves

1. Within 3 years:
Recommend possible jobs within Ministry and/or in
different Ministry

2. Longer term possibilities:
Recommend possible development direction

Recommend training required

MOE's Staff Training Branch's *Training Framework for Teachers*
(Table 4) spells out the developmental roles or career milestones
of teachers and the recommended dimensions of training. This
information illuminates the state of *Professional Commitments*
in the school. This, in turn, and can help school leaders to chart
the career development plans of staff and make decisions on
formal PSD such as courses and workshops and informal PSD
such as networking and mentoring.

Table 4 – Training Framework for Teachers
(Extract from Staff Training Prospectus, 2000, issued by Staff Training Branch, MOE)

DEVELOP-MENTAL ROLE	DIMENSIONS			
	Professional Practice	Personal Effectiveness	Leadership & Management	National Education
The First Year Teacher	• MOE Induction Programme • School Based Induction • On-the-Job Training	• Time Management	• Classroom Management	• Education Policies
The Trained Classroom Teacher	• Content & Pedagogy in Subject Teaching • IT Skills • Updates in Curriculum & Assessment	• Counselling • Stress Management • WITs Tools • Personal Effectiveness	• Classroom Management • ECA Training	• Education Policies • Service Quality & Productivity
The Peer Leader	• Mentoring, Coaching & Counselling Skills • Supervisory & Curriculum Management Skills • Content & Pedagogy in Subject Teaching • IT Skills • Updates in Curriculum & Assessment	• Effective Leadership	• Team Building • Communication Skills • WITs Leaders • Managing People and Resources	• Education Policies • Service Quality & Productivity
The Organisational Leader	• Managing the school programme • Content & Pedagogy in Subject Teaching • IT Skills • Updates in Curriculum & Assessment	• Effective Leadership • People Skills	• Managing People and Resources • Leadership Skills • Promoting WITs	• Education Policies • Service Quality & Productivity

TRAISI fits into the systemic framework because it helps to translate the PSD *Plans for Improvement* into the *Experiential Delivery System*. The computerised administrative system enables teachers to apply for the workshops/courses that they have planned in their Individual Training Roadmap and to track the courses that they have attended.

Implications

The systemic framework will enable the Principal to craft a coherent picture-story out of seemingly unrelated events coming the teachers' way at different times of the year. This framework can be communicated to all teachers in the school and reiterated frequently so that a shared picture of PSD can be developed. When all teachers in the school look at the whole big picture together and understand the interrelationships of the parts, they will see meaning in their own individual PSD experiences.

When the entire school is aligned through a common understanding of the systemic framework, more collaboration will emerge because it will be easier for the various departments in the school to find common meaning and unity of purpose in PSD. This, in turn will facilitate the school's move from the current MOE-driven approach to PSD to a more autonomous school-driven approach. When that happens, commitment will replace compliance (Senge, 1994).

Linking the SEM, Staff Appraisal, TRAISI and Teachers' Training Framework into a system of interdependencies will enable the entire school community to see where the MOE requirements and initiatives fit (Fullan, 1993). This insight will enable teachers to grasp the purpose of these initiatives. Understanding can ameliorate resistance.

Seeing the interdependencies within the PSD system will also allow school leaders and administrators to examine the variety of high and low leverage actions that they can take to achieve excellence. Higher quality decisions are more likely to arise from this systemic understanding.

Conclusion

The aim of the systemic framework is not to add but to integrate so that a holistic picture of PSD incorporating all the existing elements in schools can be developed and used to explain to teachers what is happening. The framework will help teachers

to make meaning of the complex and fragmented PSD events. Seeing the underlying structure will enable everyone in the school to think systemically about PSD, to see the wood as well as the trees.

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Mrs Woo Yoke Yoong is the Principal designate of Xinghua Primary School. She will assume her new duties with effect from 15 Dec 2000.

Building a Quality Teaching Force – the Collaborative Approach

Boo Hong Kwen

Introduction

The purpose of this article is to call for a greater collaboration amongst the tripartite partners that are involved in the training and professional development of teachers. I write from my background as one who has taught as a teacher for 6 years in the Singapore school system, as one who has served as a science specialist inspector in the Ministry of Education Headquarters (MOE HQ) for 5 years, and now as one who has served in the National Institute of Education (NIE) as a teacher educator for 10 years.

In his speech to participants at the recent MOE work plan seminar (held on 23 September 2000), Rear-Admiral (NS) Teo Chee Hean, Minister for Education and Second Minister for Defence mentioned that the biggest challenge facing us for the next 5 to 7 years is the building of a quality teaching force for the 21st century.

Indeed this task of building a quality teaching force is a mammoth one that requires the concerted effort of all personnel involved, including MOE HQ officers, school personnel and NIE teacher educators.

Quality teachers are those imbibed with the right attitudes and values for teaching (such as moral integrity, a sense for responsibility for himself, his family, his community and country, ability to role model and inculcate the desired outcomes of education in his students, including the ability to work in teams and value every contribution), equipped with the right skills (in, not only the delivery of content but also in the inculcation of the right skills and values in his students), and knowledgeable in content as well as in pedagogy.

As the principal of Cedar Girls' Secondary School reminded us in her presentation on "Integrating character education into curricular and co-curricular activities" at the work plan seminar, "It takes ten years to grow a tree, and one hundred years to 'grow'
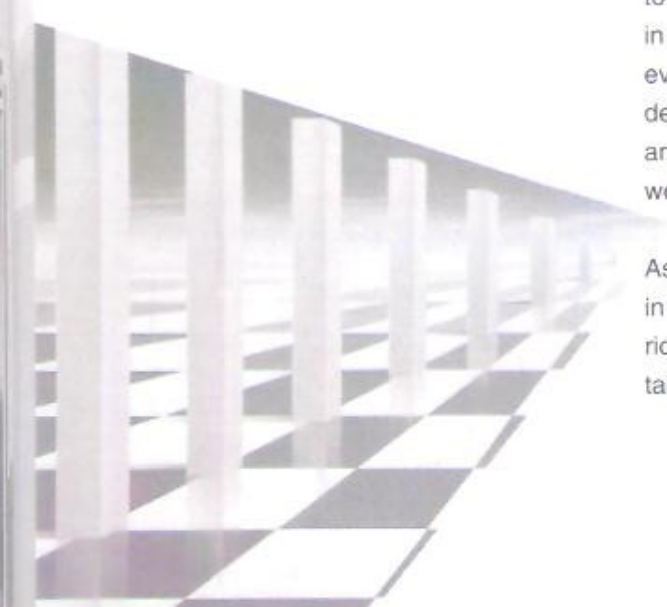
a person" (Chinese proverb). We, the tripartite partners involved in teacher education and development, are still learning and growing ourselves and therefore, it is important that we all recognize that it is only through working together and building upon each others' strengths and contributions that we can adequately address the challenges facing us.

The Need for Greater Collaboration among Teacher Trainers and Developers

From the interaction within the group discussion that I was involved in, as well as from feedback from some of my NIE colleagues who took part in various other discussion groups, it was clear that we, the tripartite partners involved in the training and professional development of teachers, are still some way from the goal of being a united team. We were saddened by the fact that some of our fellow partners from the schools felt it necessary to adopt a "finger pointing" approach to addressing current concerns rather than engaging in a constructive search for practical solutions.

Of specific concern were some of the statements made in our discussions groups, the essence of which was a general view that NIE was not adequately preparing student teachers for their role in the classroom and that too much was expected of the schools. I believe that such expressions of concern indicate a lack of understanding of the particular role and necessary limitations of the courses provided by NIE.

For a typical one-year Post-Graduate Diploma in Secondary Education {PGDE(Sec)} course the contact time that a typical student has with NIE staff amounts to 338 hours (calculated by taking 26 academic units X 13 hours) in which we are required to cover concepts and principles that relate to a wide range of topics, including psychology of pupil development and the learning process, social context of teaching and learning, instructional technology, including information technology, teaching and classroom management, teaching and learning of two academic subjects.

If one compares this 338 hours with the contact time that PGDE(Sec) students have with the school personnel during their practicum of 9 weeks and their school experience period of 1-2 weeks, it can be seen that in fact NIE staff really do not have that much contact time with our trainee teachers compared with the school personnel. For a typical NIE teacher educator such as

myself, I have only 16 hours of formal contact time to prepare my PGDE (Sec) students to begin the process of learning to assess pupils' learning in chemistry.

Clearly, it is not possible for NIE to provide more than an initial foundation for educational practice upon which the teacher will build throughout his career. In practice, this is true of all education; the formal coursework cannot be expected to provide more than a base upon which the student will build further knowledge and practical experience with the help of peers, mentors, career developers and through in-service training.

A selection of the specific statements made during the group discussions at the work plan are reproduced and commented upon below.

Statement 1

NIE staff are shifting their workload on practicum supervision to the schools".

The expressed theme was one of unhappiness that NIE teacher educators are shirking their responsibilities by getting school personnel to do NIE's work of supervising trainee teachers during their practicum.

My comment:

It seems that there is both miscommunication and misunderstanding about the NIE-school practicum partnership model here. Studies in teacher training have indicated that school practitioners' have a very significant contribution to the training of new teachers on many aspects, including the development of insights about instructional contexts where learning application takes place. Also, the recent large increases in the intakes of initial teacher trainees together with the shortage of manpower at the NIE have necessitated the adoption of the partnership model. In this model, the teacher practitioner or co-operating teacher, acting as mentor and guide, supports and complements the NIE's role by helping to develop the trainee teachers' attitudes, skills (including classroom management skills which is best learned at the school classroom) and content knowledge as well as pedagogical knowledge.

Teacher training and professional development should be seen as a continuous, life-long process, a continuum, beginning with the initial training provided through coursework at the NIE, followed by school mentorship during the practicum, and followed subsequently

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and continually by in-service training provided by a variety of teacher trainers and developers, including those from NIE, schools and MOE HQ.

Statement 2

"NIE is producing new teachers who lack classroom management skills."

My comment:

It takes time, effort and experience, i.e. a process, to produce good classroom managers. As cited by the principal of Cedar Girls' Secondary School, the education of a person, including a good classroom manager, is a long process that involves the investment of time and effort, and requires the concerted effort of all personnel involved in teacher education and professional development. Whilst in a PGDE or BSc/BA course at NIE is able to cover the relevant principles through theory and case studies, we have neither the opportunity nor the resources to provide a practical working classroom environment. This is clearly an area that needs the NIE-school partnership.

Statement 3

"NIE should teach less theory and train teachers in the practical aspects."

My comment:

Training teachers is not like training animals. Animals can be trained mechanically, and successfully, by the use of techniques such as the stimulus-response training regimes of behaviorists such as Skinner and Pavlov. As suggested by Gestalt psychologists such as Wertheimer, Koffka and Kohler, human learning, especially in learning to solve problems, is accomplished by insight, not by mechanical repetition. Insights need to be developed in various ways and means, including through the understanding of relevant concepts, principles and theories, and through case studies. Again, this is an area in which we need to recognize the synergistic benefits of foundational education and "on-the-job" training provided by the schools. At NIE, we aim to provide teachers with a formal theoretical foundation for good educational practice which includes the "whys" and "whats" and not merely the "hows". Unless our teachers are equipped with a firm foundation in educational theory, how can we hope that they will be resourceful enough to adapt, refine, innovate, improve and upon existing knowledge and methods?
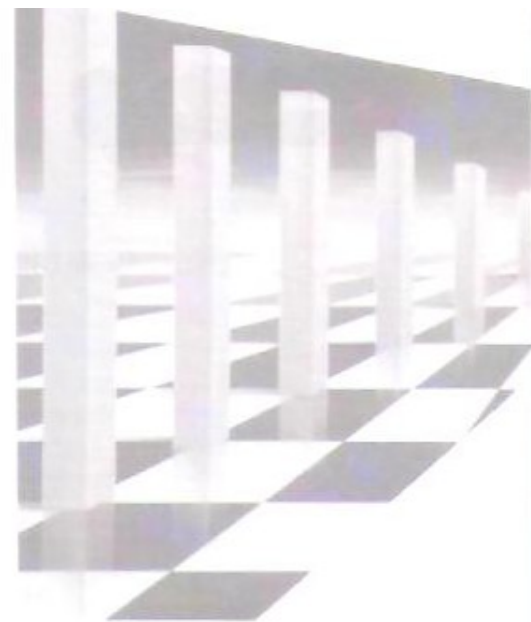
Conclusion

The most effective way of educating and developing teachers ultimately boils down to role-modeling by the teacher educators and developers. If we, the teacher educators and developers, the tripartite partners at the schools, MOE HQ and NIE cannot collaborate and work as a team, in a concerted way, towards the professional development of teachers for whom we are jointly responsible, then ultimately we are undermining our own efforts. We can expect our trainees and mentees to be "laughing behind our backs" and pointing a finger at us if, on the one hand, we require them to work cooperatively as a team whilst, on the other hand, we cannot role-model for them collaboration or teamwork in practice. The task of moulding our teachers into a quality teaching force is tough enough, even with good teamwork and cooperation among the tripartite partners.

So let us stop undermining each other's work. Let us not base our opinions of an entire group on individual encounters with a few isolated cases of poor examples. Let us consider the big picture; the welfare of future generations of students who are going to be impacted by their interactions with teachers for whose training and professional development we have collective responsibility. By all means, we can all use feedback from our fellow team members in order that we can contribute to improving our total collective output; but feedback needs to be constructive so as to build up rather than break down the team ethos.

Ultimately, it is not higher salaries and better promotion prospects alone that will retain teachers, especially the younger and the more idealistic ones. I believe that what puts some of these younger teachers off teaching as a career is evidence of the hypocrisy of their "seniors": their teachers, mentors and higher-ups, that is we, the tripartite partnership of MOE HQ, school leaders and NIE lecturers. For all of us preach "teamwork and cooperation" and institutionalize these as desired outcomes for them to inculcate in their students and at the same time, by our conduct, we demonstrate that we ourselves are unable to produce good team work!

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*NIE is organised into 10 Academic Groups. The Science and Technology Education Academic Group (STE) is one of these groups.

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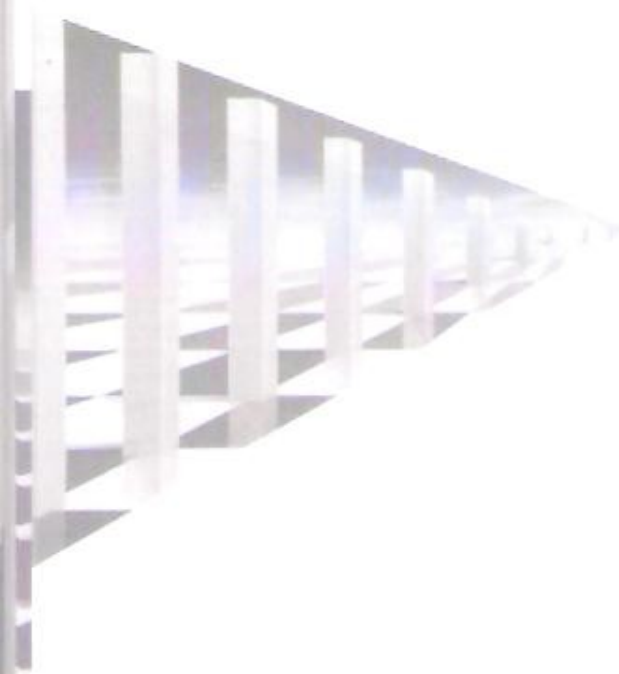
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The Servant-Leader is servant first ... It begins with a natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead...... The difference manifests itself in the care taken by the servant"

----- Robert Greenleaf -----

The 21st Century will see a shift in many businesses and non-profit organisations. From the traditional autocratic and hierarchical modes of leadership towards a model which invokes teamwork and community; strongly based in ethical and caring behaviour; and one which attempts to enhance the personal growth of workers while improving its quality of service.

The **Greenleaf Centre for Servant Leadership (Asia)**, sponsored by the **Girls' Brigade Singapore**, together with the **Civil Service College, Institute of Public Administration and Management (IPAM)** are organising its inaugural conference themed **Leading the Millennium Organisation – Creating Great Places to Work**. This conference aims at introducing servant-leadership as the basis for creating organisations that will make a difference in the new millennium.

Dates
Conference: 12-13 Feb 2001   Post conference: 14 Feb 2001
Venue
Conference: Suntec City   Post conference workshops: Orchard Hotel
Fees
Conference: **$800** per participant (two-day conference)
Post conference workshops: **$400** per participant
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* Lim Siong Guan, Head Civil Service, Singapore, * Dee Hock, CEO Emeritus of VISA USA and VISA International, * Ann Mcgee-Cooper, Consultant, * Daniel Kim, Co-founder, MIT Organisational Learning Centre, * Claus Otto Scharmer, Founding Research Member, Society for Organisational Learning (SOL)

*For details, contact **Miss Esther Fan** at **8741796** or E-mail: esther_fan@psd.gov.sg@smtp.*

Teachers' Clipboard...

"A lamp cannot light another lamp unless itself is lighted. A teacher cannot really teach unless he is constantly learning."

- Tagore -

"Personally I'm always ready to learn, although I do not always like being taught."

- Sir Winston Churchill -

"I have learned much from my teachers, and from my colleagues more than from my teachers, but from my disciples more than from them all."

- Talmud -