

Creative Leadership

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1. A scenario : Leading a school to change its pedagogy

Bob is the headmaster of a large coeducational school. He manages it well. The school has a clear vision of its purpose. The outcomes of his students match those in similar schools. They reflect effective curriculum provision and implementation.

His relationship with his teaching staff, based on mutual respect, works well. Staff are generally positive about the management. The school is committed to professional development. Recruitment reflects the dominant staff profile of the school. Wise management of its financial resources helps the school achieve its educational priorities.

Bob's agenda, is student learning. His passion is that all students in his school have the opportunity to learn optimally. This includes those students whose approach to learning may be described as 'gifted'. A series of incidents, each small, led him to believe that the quality of teaching could be improved for these students. Some of the students who had been identified earlier as gifted were not interested in learning. They described as 'boring' the teaching that allowed peers to learn. They certainly didn't excel in academic learning and in some cases their learning outcomes were substantially below expectations. Some were regularly behaviour and discipline problems.

Discussion with some of the disaffected students suggested that the teaching did not match how they learnt. This was confirmed when some of the teachers mentioned that their teaching hadn't deteriorated, it was just that many of the students just didn't want to learn. Teachers doubted that some of these students were in fact gifted. They say some of these students as difficult to manage and direct in the classroom, as being trouble makers. Some couldn't spell correctly, some couldn't recall number facts.

Bob saw the problem differently; as one in which the teaching practice made invalid assumptions about how these student learnt. A mismatch existed between how these students learnt and the learning assumptions made by the teaching. Bob was aware that the mismatch could be solved in part by fine tuning the teaching.

Bob conceptualized the problem as leading his school to learn more relevant teaching practice for these students. He needed to lead his staff to improved teaching and some students to enhanced attitudes and goals for learning. To improve their teaching practice, his teachers needed to reflect on and evaluate their practice, identify where it could be improved and make the necessary changes.

He was not sure whether all of his staff were ready to be led in this direction. Some staff were already trying to do this and he supported them. Others were not as motivated to engage in a change in this direction. Some didn't see the need for it, some didn't believe that they could improve their teaching.

He could not, personally, lead all of his staff to make the improvements he saw necessary. In some areas he knew the outcomes he wanted but did not know how to achieve them. The school

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was too large for him, or the SLT, to do all of the leading. As well, he did not know the best ways of having his teachers learn so that their teaching would improve in a permanent way.

Bob's attempts, in the past, to lead his school to improve their pedagogic practice had had limited success. He had discussed his goals with his leadership team and had asked departmental heads to implement the initiatives. The heads had discussed the issues, but little had changed practically. While they had accepted the need for improvements, they did not know how to bring them about.

Bob wanted to avoid a repeat of this. He needed to build in his school a capacity for systematic, on-going professional learning. His goals and the vision for the school needed to be negotiated with the staff and ultimately accepted as theirs. Staff learning, as well as being specific to particular areas, needed to be integrated with the direction in which he wanted to lead the school.

Most school leaders face the challenge of improving the quality of teaching in their schools. While a school leadership team may decide that a particular innovation or change is necessary, the school may not necessarily move in the intended direction. To achieve improved pedagogic practice, a school needs the capacity to learn professionally. Effective leadership builds and guides this capacity.

2 The school leader is seen as a 'leader of learning'

Bob knew that he was seen in his school largely as a managerial leader. Professional learning already had a role in his school. His staff had learnt, for example, to adjust to various changed conditions. However, his past attempts to lead his school to improve their pedagogic practice had had limited success. He had discussed his goals with his leadership team and had asked departmental heads to implement the initiatives. The heads had discussed the issues, but little had changed practically. While they had accepted the need for improvements, they did not know how to bring them about.

The improvement he was contemplating required a broader professional learning base. He wanted the school to learn new ways of thinking about student learning and to map this into changed teaching. He also wanted to avoid a repeat of the past inertia to improvement. He needed to build in his school a capacity for systematic, on-going professional learning.

To achieve this, he needed his staff to see him in a different role; as a leader interested in leading them to optimise the match between their teaching and contemporary student learning. He needed to develop a school wide concept of professional learning and to be seen now as a 'leader of professional learning'. He needed to unpack this and plan what he would do to achieve this.

2.1 Professional learning needs to be differentiated Schools are complex learning communities with different parts of the community learning different things. Professional learning needs to be contextualised in different ways in different areas of the school's work. A primary school aiming to improve its literacy teaching will synthesise relevant knowledge from the early, middle and the later primary years. These areas differ and professional learning at each level follows slightly different learning pathways.

In a secondary school pursuing a similar improvement goal, the teaching that enhances literacy in history may differ from that used in art or mathematics. In each case the school's knowledge has both generic and specific components. The SLT needs provide the opportunity for differentiated professional learning by different groups.

Bob realised that different parts of his school would learn different outcomes. The mathematics faculty may approach gifted learning in ways slightly different from history or physical education. This needed to be recognised, the learning outcomes of each part valued, appropriately resourced and fostered and synthesised. As a school level leader of learning, his role could be like that of an orchestra conductor, recognising, encouraging and valuing the various aspects and bringing them together or integrating them.

2.2 The goal of the professional learning is enhanced teaching practice How would Bob's school know when its professional learning capacity had been enhanced? In terms of the agenda and direction he had set, Bob could already see some indicators

- when the students who were ascertained to be gifted were making optimal learning progress.
- when his teachers had mapped their enhanced knowledge of contemporary gifted learning into improved teaching procedures in subjects such as history, mathematics or economics. They would need to use the procedures selectively, deciding when each will be most useful.
- When there was a focus on fostering a school wide 'code of teaching practice' that included gifted learning.
- When there is on-going constructive dialogue about the teaching in classes and subject areas and students are aware of the aim to improve learning opportunities provided and their roles in it.
- When an espoused commitment to improvement in teaching was linked directly with a practical change in teaching practice
- When the school had a clear knowledge of how to improve its practice, that is, an explicit knowledge of how to learn professionally.

2.3 Leadership that is creative The term 'creative' is used when a process or an outcome is

- novel (that is, hasn't been taught)
- works (that is, functional)
- has an element of unexpectedness or surprise (the 'wow' factor)
- is unusual
- extends existing knowledge and can, with hindsight, be predicted from it.

Creative leadership leads processes and / or outcomes that have these characteristics. I will return to this at the end of this presentation.

3. The concepts that underpin the model of professional learning

Many school leaders know the difficulty of leading their schools to improved teaching practice that is long lasting and endures independently of particular staff members. This inertia leads to a sense of impotence at a professional level and low confidence that the school can improve.

The focus of my paper is on how the SLT can assist a school to translate improved teacher knowledge into thoughtful, reflective teaching practice. It describes an explicit model for building professional learning capacity in schools. The model of professional learning capacity is based on the synthesis of three key concepts:

- (1) the context for professional learning is the school community, of which the PLT is part.

- (2) an explicit, systematic theory of learning.
- (3) school cultural factors influence how the theory of learning is embedded in a school.

3.1 The context for professional learning : the PLT as a learning community

3.1.1 What makes a learning community ? When is a group of learners such as a school a learning community ? Most definitions identify a shared commitment to agreed community goals and shared learning, including on-going collaboration and communication, between members.

Not all communities are learning communities. A group in which the individuals pursue their own learning agendas without a group purpose for learning may be a community of learners but not a learning community. Similarly, a group of learners that does not, during learning, attempt to synthesise and collate what individuals have learnt, could be called a community of learners but not a learning community in terms of the particular criteria above.

3.1.2 The unit for professional learning : the PLT What is the unit for professional learning in a community such as a school ? The present project sees it as the professional learning team or PLT. A PLT is a group of staff who are learning together to enhance their professional practice in some way. Bob wanted professional learning in teams for several reasons.

- He knew that each staff member had unique knowledge and that pooling this into a group knowledge would be an even richer knowledge source.
- He wanted to make sure that new knowledge by each member could enrich the knowledge of each group and ultimately the knowledge of the school.
- He knew that the staff could support each other with their individual professional learning and that they would learn from each other
- He knew that a professional dialogue about enhanced teaching could evolve
- He knew that mutual professional trust and respect would build

Generally, depending on the purposes for learning, the team can be at a level in a primary school (for example, the infant, the middle primary and the upper primary years) or a subject area or faculty in a secondary school (for example, see Brown, Rutherford & Boyle, 2000) or teachers from a range of subject areas.

Professional learning has both individual and group learning components.

- The individual component includes (1) trialing novel teaching procedures in classrooms and (2) reflective activity both for past experiences and ‘dry runs’ of possible future activities.
- The PLT provides the means for synthesizing and learning collaboratively, in professional teams or groups for providing mutual support and for building professional trust. It draws together the individual and collaborative learning activities.

3.1.3 PLTs need to be led The SLT frequently cannot personally, do all aspects of the leadership for all of his staff to make the necessary improvements. In Bob’s case, he knew the outcomes he wanted but did not know how to achieve them. Also, the school was too large for

him, or the SLT, to do all of the leading. As well, he did not know the best ways of having his teachers learn so that their teaching would improve in a permanent way.

Each PLT needs to be led by a leader of learning who can guide and foster its learning, assist in synthesizing the learning and maintaining a focus. Bob could see that without this some teams would not get anywhere while others would go in multiple directions at once without consolidation. He was not sure what knowledge the leaders of learning would need, how they would be trained or how their work would fit with that of the SLT.

The PLTs operate at the interface between the school leadership team and individual classroom practice. Their overlapping functions are shown in Figure 1.

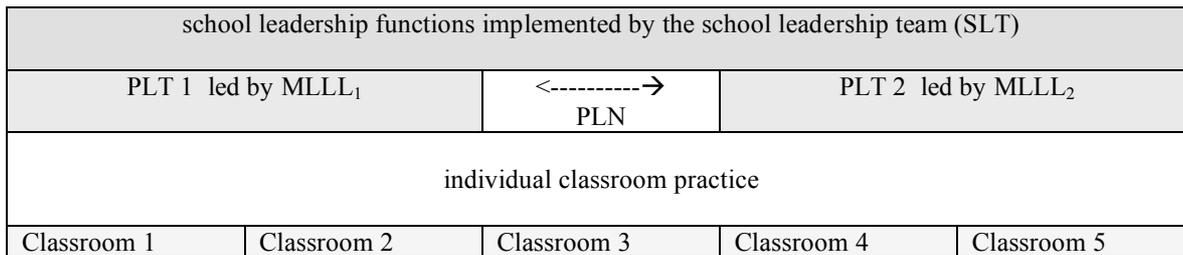


Figure 1 : The professional learning capacity in a school

PLTs as ‘mini-communities’ differ from other communities in various ways. Their goal congruence and commitment to community learning may be only in the focus area for the learning, (and for which the community exists). They may differ in their goals and purposes in other areas of their professional lives. Second, while, knowledge in many communities is seen as absolute and fixed, in learning communities the knowledge is available to be questioned and changed. SLTs need to be aware of these characteristics.

If Bob is to implement PLTs in his school, he may need to evaluate the extent to which a professional learning community already exists. To do this he may need to identify indicators of professional collaboration, staff preparedness to engage in this approach to professional learning and steps the leadership team might take to fostering this process.

3.2 An explicit, systematic theory of learning

3.2.1 An explicit, systematic theory of learning scaffolds knowledge enhancement

This paper proposes that a successful learning community will be underpinned by an explicit theory of learning that maps into decision-making, practice and policy. This theory needs to scaffold knowledge enhancement for individual community members and for groups in the community.

There are many learning theories. Some are not teaching-friendly and are not used in regular teaching. The approach here focuses on what learners need to do to learn, that is, . These are learning interactions. Teaching will be most effective when it fosters these interactions.

Learning occurs in context, with learners interacting with information from teachers, on-line learning programs, books or peers. Because it is an interactive process, it is necessary to take account of the context, situations, community or culture in which the interactions occur. The information to which the learner is exposed is determined by what the community or culture values. These values will also be indicated in the feedback learners receive.

To learn successfully, learners interact with the teaching information in various ways; they need to use various 'learning functions' (Munro, 2003a, 2003c, 2003d, 2002a, 1999a). These are:

1. ***A purpose or reason for learning*** Learners frame up and explicate their purpose or reason for learning the ideas. This may be stimulated by perceived problems or concerns. They are 'challenged' to learn, are in a state of 'cognitive conflict' (Lowenstein, 1994). This can range from a largely emotional drive to satisfy one's interest of curiosity to an explicit challenge or question to be answered.

This is important because it helps teachers see that the reason for professional learning is to solve a problem or to deal with an issue in their teaching; learning in this context is seen as problem based and solution focused.

2. ***The desired outcomes of the learning*** Learners have an impression of the intended outcomes of the learning, that is, where they will end up (Locke & Latham, 1990; Pintrich & Garcia, 1991). The outcome may be speculative, a possible solution.

For teacher learning this assists in contextualising the goal; knowing what it would 'look like' in the work of teachers, students and school leaders when it had been achieved.

3. ***Use what they know*** Learners make links with and use what they know about the topic. There are several aspects of this; they recall
 - what they know about the topic; their abstract, imagery and experiential and action knowledge of it (learning styles, for example, Riding & Cheema, 1991; cognitive style, for example, Munro & Howes, 1996a; multiple intelligences, for example, Gardner, 1995, 1999; dual coding theory, for example Paivio, 1991),
 - what they know about how to learn it, how to think through the topic (for example, Biggs, 1987; Davidson & Sternberg, 1998; Jausovec, 1994),
 - what they believe about themselves as learners of the ideas, how they value the ideas, whether they believe they can learn the topic successfully (their self-efficacy) (Nichols & Utesch, 1998; Pajares, 1996),
 - what they don't know about the topic, their unanswered questions about the topic.

This is important for professional learning because it helps teachers see that what they already know and their bank of professional experiences are valued and provide a starting point for the learning. It also draws attention to the notion that their professional knowledge is not seen to be 'set in concrete' but is available to change.

4. ***A pathway to the outcome*** Learners construct or "see" a possible pathway to their goal. While the pathway may change direction during the learning activity, at any time it assists in orienting the learning.
5. ***Learn the new ideas in specific contexts*** Learners learn the new ideas in specific contexts in limited, supported, 'scaffolded' ways. Their new knowledge may be in the form of experiences. They may learn aspects or components of the ideas at any time, learn the ideas in particular formats (as actions, as imagery, in language) explore and trial particular components. They may, for example, intuit or speculate about a new idea in particular situations and then trial it.

This is important for professional learning because it helps teachers to contextualise the new learning in their classrooms and to explore new teaching procedures.

6. ***Deepen the new understanding.*** Learners abstract or "decontextualize" the new knowledge and link it more broadly with what they know. They may re-prioritize their knowledge and identify a range of contexts in which they can use it.
7. ***Invest positive emotion in the new knowledge*** Learners link emotion with the new knowledge. For effective future learning in a related area, it is advantageous for students to invest positive emotion in the new knowledge. They are more likely to do this when they see the new ideas as interesting, have a value or use, that is was their mental activity that learned the ideas and that they managed and directed aspects of the learning (Zimmerman, Bandura & Martinez-Pons, 1992).

This is important for professional learning because it helps teachers see value in the professional learning, to be positively disposed to it and motivates further professional learning. It allows the cynicism that frequently accompanies professional learning to be replaced by positive emotions and for PLTs to recognise and celebrate their successes.

8. ***The learning actions that helped them*** Learners identify how they learnt, that is, they reflect on and review the actions they used to learn (Munro, 1996b, 1993).

This is important for professional learning because it helps teachers recognise what they can do to learn professionally in a demanding work context. It also builds in a school a staff knowledge of how to learn more effectively in the future. The school knows how to learn in explicit ways and is not dependent on particular staff members for this.

9. ***Store what they have learnt in memory*** Learners store what they have learnt in memory and practise remembering it. They say briefly what they have learnt, link it with what they know, build memory "icons" for it and practise recalling it (Baddeley, 1990).

This is important for professional learning because it recognises that a body of professional knowledge underpins teaching practice in the school and it optimises the likelihood that improvement in teaching is more likely to be sustained and permanent. Storing the new knowledge in the memory of the faculty or the school means adding to the school's 'code of pedagogic teaching practice' and to the regular professional dialogue in the school.

10. ***See themselves make progress*** Learners see themselves making progress. They use their own indicators of learning and use these to map and to monitor their progress.

This helps teachers and the school recognise the progress they have made as a result of this new knowledge. Staff can see that the school is 'going somewhere' and encourages a focus on indicators of learning success.

11. ***Automatise what they have learnt*** Learners automatise aspects of what they have learnt so it can be used more easily to build further learning. They do this by automatizing links between ideas and organizing what they know into larger "chunks".

Automatising the new knowledge as teaching procedures increases the likelihood that the improvement in teaching practice becomes relatively automatic and will remain part of the

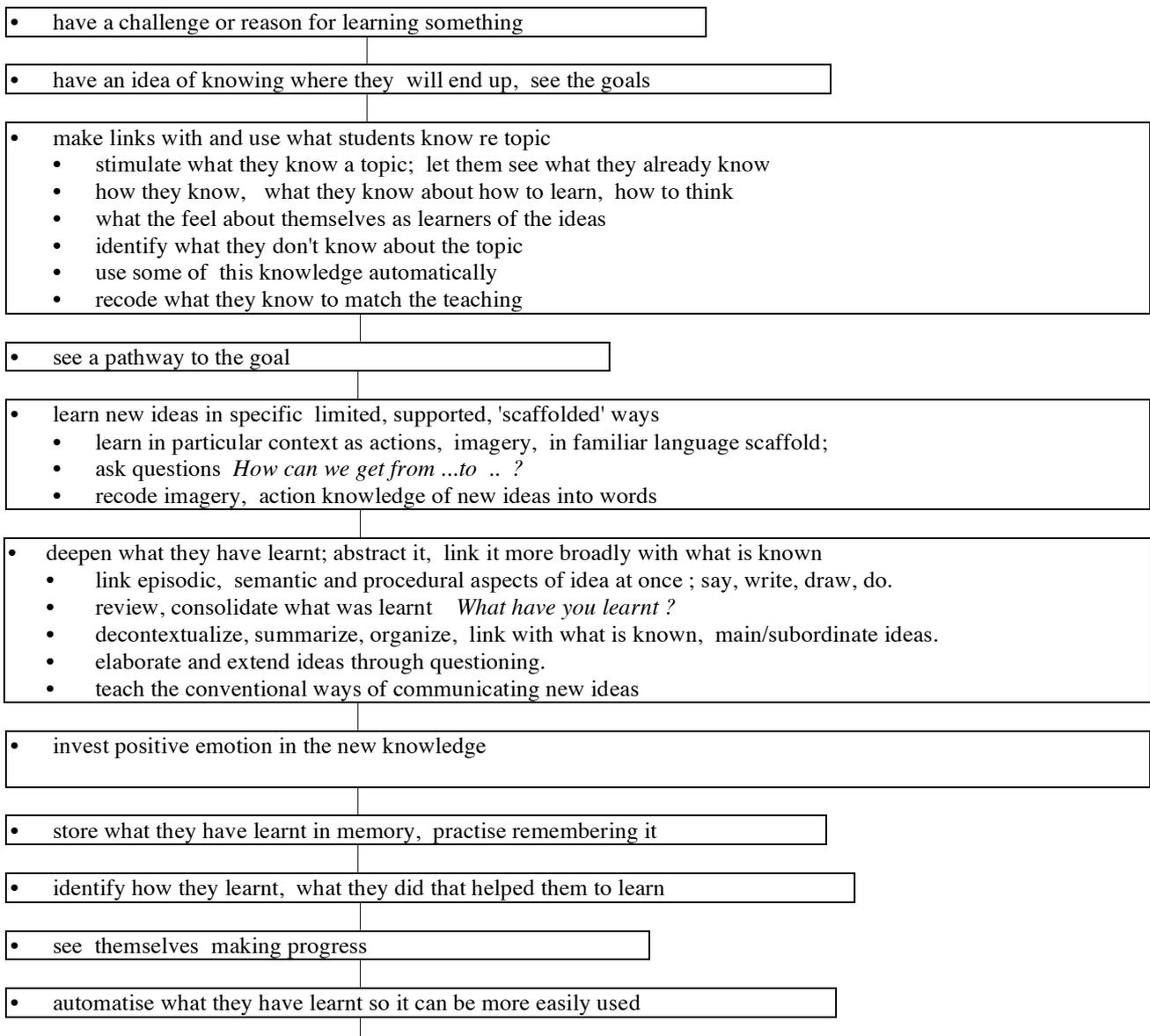
teacher's repertoire of pedagogic procedures. It also means that the new knowledge is more likely be available to support further learning.

12. **Transfer and generalise the new knowledge.** They analyse the new understanding from a range of perspectives, for example, use Bloom's levels of questioning, de Bono's Six Thinking Hats, Taylor's Multiple Talents Model. They explore the extent to which they can transfer the ideas (near and far transfer) and use the knowledge in open-ended creative problem solving.

This helps staff to transfer and generalise the new knowledge, analyse it in terms of a range of perspectives and see how they can use it more broadly to solve problems that arise in their teaching.

- 13 **Organise what they have learnt for assessment** They reflect on the context in which they need to display the new knowledge and how they can align it with various assessment criteria (Munro, 1999).

The learning framework is shown in the following diagram:



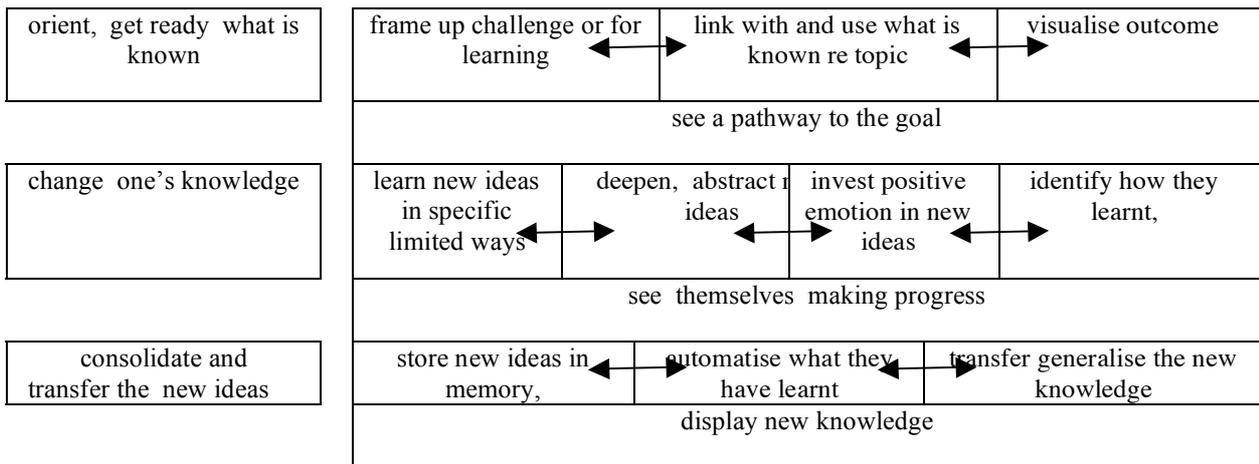
- transfer and generalise the new knowledge

- organise what they have learnt for assessment purposes

3.3.2 How learners use the interactions Learners do not usually use the interactions one at a time in a linear one-directional sequence. They can be categorised into three clusters: those to do with

- orienting one’s knowledge (that is, ‘getting it ready’) for learning;
- changing one’s knowledge and
- consolidating and transferring the knowledge change.

Instead, at any time they can use more than one.



More than one interactions can be used at any time. Learners direct or manage and balance this use.

Learners can use the interactions spontaneously or be cued to use them. Learners who use them mainly when instructed to are more dependent and externally managed learners. Learners who use them autonomously and spontaneously in a strategic, selective way are more self managing and directing learners. Their use of the interactions in a self managing and directed way depends on the content or subject being learnt. A learner may be more autonomous and self managing in some areas of knowledge than in others.

3.3 The application of the theory of learning in a professional learning community.

The learning framework stimulated Bob to ask a number of questions about how his school would learn. Some of these are shown in Figure 2.

What ? What knowledge and skills is the school be learning ? What will it know when it has learnt ?	How ? How will the school learn ? What will it need to do to learn ?	Goals ? What are the goals for learning ? How will activity in the school be different when the school has learnt ?
From where ? What does the staff already know about the topics it is learning ?	A learning community learning	Pedagogy ? How will the staff be taught ? What teaching procedures will be used ?
Progress ? What are indicators of the community learning ?	Why ? What will motivate the staff to learn ?	Show what it has learnt ? How will the community show what it has learnt ?

Figure 2 : The types of questions that guide a community learning.

Bob's leadership team needed to make decisions about each of these questions, in order to put in place the optimal conditions for professional learning and to foster a positive climate for it. The following factors influence the quality of the professional learning climate.

3.3.1 How the culture affects the interactions Various cultural factors affect how the learning interactions operate in the context of a school. School cultures differ in a range of ways that affect how the learning will be actually 'done'. The issues Bob needed to examine included:

- personnel factors, such as staff availability to implement the learning agenda, their relevant knowledge and commitment to learning.
- curriculum factors, such as the curriculum orientation and preferences of staff, the extent to which the curriculum can be modified to accommodate the change.
- sociological factors, including the dominant values in the community, the extent to which the school culture can scaffold the change, power differentials within the community and a range of demographic factors relating to community members.
- pedagogic factors, such as teachers' beliefs and knowledge about effective pedagogy, the extent to which teaching can be modified and the perceived power of pedagogy.
- economic factors such as the financial resourcing of the change in pedagogy.
- management factors, such as the extent to which management processes support staff professional learning, the balance between management and leadership processes.

Bob's leadership team used the following format to examine these factors in his change agenda.

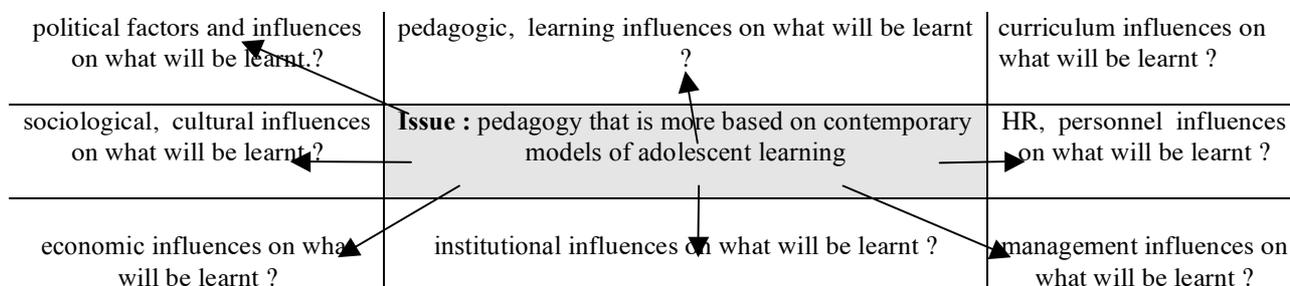


Figure 3 : Cultural factors that influence a community learning.

3.3.2 Professional learning is student referenced. The goal of the professional learning is enhanced student outcomes. The two need to be linked. Ways of making these links include:

- (1) on-going student evaluation of the teaching in terms of the extent to which it assists their learning, that is, 'the student voice'. This can be done through monitoring students' level of engagement and interest in learning and their beliefs about learning success.
- (2) monitoring student achievement levels.
- (3) parent feedback re the valuing of curriculum provision.
- (4) student attitudes to the targeted improvements; the students need to value the areas targeted by the professional learning.

- (5) changed expectations that the students have about the new learning outcomes; the students need to believe they can learn them.

School leaders, PLTs and individual teachers need to decide

- (1) the student data they see as relevant to particular professional learning activities, how they will collect authentic feedback data from students and parents.
- (2) how they will collate and show a valuing of student knowledge re the innovation.
- (3) how they will involve students in the professional learning program.

3.3.3 Professional learning can follow a chaotic path A key difference between the academic and professional learning is often the extent to which the learning activity can be planned, and managed. Professional learning outcomes are not as clear-cut as learning to solve quadratic equations in mathematics. As well, the professional learning pathway is not as well established as that for learning how human emotions are portrayed in different types of English texts or how to stretch before strenuous physical activity in physical education.

There are frequently unforeseen hurdles on the professional learning pathway that may worry some staff. Staff differ in their reactions to the uncertain and unpredictable aspects of professional learning in different ways:

- some staff learn rapidly while others resist the need to change.
- some prefer a more open-ended approach to learning, while others prefer imposed structure and direction. Some want to know exactly what they need to do, while others would value the opportunity to see what worked best.
- some move in small steps and need lots of feedback while others make bigger leaps in knowledge.
- some are motivated by the surprise, ambiguity and confusion of professional learning while others are threatened by it.

School leaders need to know that while they cannot control or totally plan the professional learning, they can put in place the conditions most likely to foster it. These conditions include (Hannay, Erb & Ross, 2001):

- (1) using procedures that encourage and value change and continual organisational learning, such as tolerating divergent perspectives;
- (2) encouraging professional collaboration and teamwork;
- (3) involving those affected by decisions in the decision making;
- (4) using procedures that are flexible and that help staff to link their new knowledge in the context of their classrooms;
- (5) helping staff become aware that the uncertainty, confusion and lack of resolution associated with professional learning are often temporary. With more time or minor

changes, they may seem less chaotic.

The school leadership team may need to use dialogue that assists staff to see the disconcerting outcomes in context, see the positive aspects of the outcomes and the parts that are in place, that these types of outcomes are not unusual in open-ended learning and that the process of learning is in place and under control.

The learning framework can assist here. While aspects of the outcomes may be chaotic, the learning framework can help school leaders to continue to guide the professional learning process. They can also use the framework in a diagnostic- intervention way to identify aspects of learning that may, at that time, assist in reducing chaos and offer options for future activity.

The SLT needs to judge the 'breadth of chaos' (randomness, confusion and unpredictability) their school can carry at any time and the readiness of their staff to engage in an activity that may involve uncertainty and over which they may have less management and direction. They need to balance this against those aspects of their core activity that they have in place at that time. They need to decide how they might deal with unexpected events and outcomes. If a school is already either in a chaotic state, or under-achieving, the leadership may judge that the professional learning activity needs to be more organized, structured and directed initially.

3.3.4 Professional learning involves collaboration The PLT provides the context for both collaborative and individual learning. Conditions for fostering this collaboration include:

- Collegiate scaffolding through activities such as reciprocal teaching (Stone, 1998) assists staff to research options for improving their practice (Sparks & Hirsh, 1997).
- Peer coaching assists staff to discuss, analyse, review and evaluate their teaching. It has led to increased (1) motivation to direct one's learning; (2) levels of trust and morale; and (3) justification to work more (Arnau, Kahrs & Kruskamp, 2004).

Staff differ in their preparedness to collaborate with peers, to work in teams and to share their knowledge. Some staff may not have experienced the positive outcomes of collaborating. Some may lack confidence in their ability to learn professionally. Their response to collaboration with peers may be "just tell me what you want me to do and then leave me alone to do it".

School leaders may need to

- establish opportunities for authentic professional learning collaboration.
- help staff build their confidence as professional learners, learn professional respect and valuing for the knowledge of colleagues.
- model collegiate dialogue in their on-going interactions with staff and encourage increased self-reflection and analysis
- foster professional trust. This is examined in a later section.

3.3.5 Professional learning requires a systematic set of learning opportunities. For a school to learn professionally, the staff need a carefully sequenced set of professional learning activities:

- they need a reason to engage in the learning; to see that new ideas would help them deal with current problems and issues in their practice and could make future teaching easier. Some small gains or 'wins' motivate them to seek further challenges. For many of staff,

the drive to question and challenge their current practice develops slowly and needs to be fostered.

- they need to identify what they know about the issue, see it, although insufficient to deal with the issues or problems, as ‘on the way’, relevant and valuable,
- they learn about possible options or solutions for meeting the challenge
- they identify or imagine what these new ideas would mean for their teaching, what they might ‘look like’ in their classrooms, see them as teaching possibilities.
- they see that they were expected to innovate and fine tune their teaching and to believe that they could do this successfully.
- they trial, practise and evaluate some of the novel teaching procedures in their classes. They would be supported to do this in manageable ways, to avoid ‘overstretching’ their teaching resources at any time. Types of assistance available would include
 - Demonstration of the novel procedures in classes to help staff contextualise them.
 - Coaching to apply them.
 - Staff discuss how to apply new procedures to topics they will teach in the future and what might be novel student outcomes.

These areas of scaffolding, in parallel with supportive dialogue from the SLT could build staff self confidence to implement and practice the new procedures.

- they share their evaluations with colleagues, learn from each other, collate their new knowledge and select what they would retain long term. The SLT helps them
 - develop a group knowledge about improved pedagogy
 - build their self confidence in their capacity to use new teaching.
 - see that the school trusted and supported them in this endeavour.
 - maximise the chance that staff would continue to use the improved teaching.
 - draw out a school wide code of teaching practice based on the new knowledge.
- they reflect on what they did to learn. If they improved their knowledge of how to learn professionally, their preparedness to learn in the future could be increased.
- contribute to a school wide ‘code of teaching practice’ and continue the sequence for further learning

SLTs need to provide a sequence of activities for staff to learn ‘how to learn professionally’. The learning interactions recommend a systematic set of professional learning activities in which staff

This sequence of professional learning activities can be applied to any topic schools need to learn. Detailed sequences and types of professional learning activities are described in Munro (2003b, 2002b, 2002c, 2000b).

Teaching the applied action research skills necessary to research and modify teaching procedures assists professional learning. Learning to identify and collect student data helps teachers see they can affect student learning. Teaching them a ‘student observation mindset’ and data collection procedures ‘tunes them in’ so that they know what to look for and can see that their teaching has a

positive effect on student learning. The outcomes of this for professional development in literacy enhancement is described in Munro (2004a).

3.3.7 Professional learning involves distilling past professional experiences During their professional careers, school leaders and teachers store in their memories a bank of professional experiences or 'episodes'. Each episode is a record of an experience that occurred at a particular place and time (Tulving, 2002). It includes the participants, the actions taken, the emotions that were implicated and the learning outcomes.

Teachers and school leaders can use their banks of episodes to inform subsequent practice. They are an efficient form of knowledge as long as the contexts to which they are applied remain the same in essential ways. They allow professionals to act strategically and effectively in a range of related contexts and to make optimal use of their experiences.

They are less useful when particular parameters in a context change. In Bob's school, the gifted students do not learn in the ways their non gifted peers did. The set of experiences his teachers learnt did not match how these students learn and therefore do not work.

You hear repeatedly of cases in which a school leader was successful in one context but not in a second, although the leader used the same procedures. Often the procedures are unsuccessful because the experiences that contain them make inappropriate assumptions. A context needs to 'be ready' for particular leadership and learning strategies.

For effective professional learning, staff reflect on and analyse their relevant experiential knowledge (both successful and unsuccessful) and extract or distil' the features that experiences share. This assists them to make explicit the beliefs that underpin their practice. They can identify in their experiences the actions and conditions that lead to effective learning.

Professional development programs in schools frequently ignore or neglect to draw on the experiential knowledge of staff. They don't see their experiences are recognised or valued. As a consequence, they see a division between the focus of professional learning activity and their 'real world' experiences and see less value in engaging in the activity.

Staff can analyse their experiences to see how both students and staff learn. They can describe these features in operational ways that are more general than specific episodes and that can be applied to new situations.

To lead professional learning, school leaders can encourage staff to

- recognise, value, reflect on and interrogate their experiences.
- contribute their unique experiences to the group or community professional knowledge of a topic or issue, thus providing additional options for colleagues.
- trial and evaluate the distilled outcomes of their personal professional experiences and map them into novel possibilities or up-dated 'virtual experiences' or scenarios for their improved professional practice.

School leaders need to be aware of the importance of the evaluation and analysis of professional experiences in continuous professional education and ensure that sufficient opportunities exist for it.

3.3.9 Professional learning acknowledges that individuals differ in how they learn. The area of learning style has been very well canvassed in recent years. Professional learning needs to identify

the range of relevant dimensions on which multiple ways of learning exist. School leaders need to acknowledge the influence of multiple ways of learning for each learning interaction and provide the opportunity for learning in these different ways.

3.3.10 Professional learning involves building and drawing on the relevant group knowledge A key aspect of professional learning involves the PLT identifying, sharing, collating, synthesizing and valuing the knowledge gained by members. This becomes the group knowledge of the PLT, department or faculty. In a similar way, the group knowledge of by each PLT can be pooled to become the knowledge of the school community.

A key characteristic of a community learning is how it shares, assembles or collates, recognizes and values what it has learnt at various times during learning. What has been learnt by each individual or team now becomes the knowledge of the group or community. These are the outcomes of the community learning. The collation is shown in Figure 4.

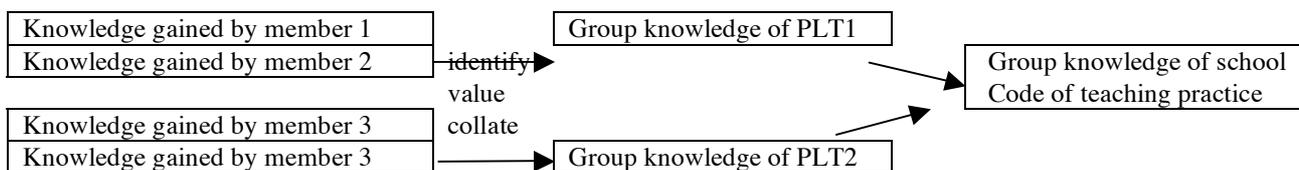


Figure 4 : The gradual collation of community learning.

This phase of the community learning involves two aspects of reflection on practice; members :

- (1) reflect evaluatively on what has been learnt by colleagues and select those outcomes that they might trial in their practice, and use the learning of others to evaluate their practice.
- (2) reflect 'into the future, contemplating possible directions for future learning.

This activity serves several purposes in relation to professional learning:

- It communicates in a tangible way the expectation that each teacher and group will engage in professional learning and that their learning outcomes are valued by the community.
- It helps the community see where it is on its pathway to its goals for learning.
- It allows staff to examine how the new knowledge might enhance its work more broadly and inform a code to teaching practice.

3.3.11 Professional learning involves identifying what has learnt about how to learn professionally One of the learner interactions is learners reflecting of how they learn, what they do to learn. The PLT and the community can identify what it has learnt about how to learn. This will help them to move towards being self managing and directing learning communities. A community that builds a knowledge of how to learn professionally is more likely to keep learning in the future. This assists in future problem solving and assists the PLTs and the school to see that professional learning is manageable and frequently motivational.

The focus on 'learning how to learn professionally' provides a basis for a positive disposition to 'life long professional learning' and fosters in the school a preparedness to engage in this activity long term. It can lead also reduce the influence of the departure of members who have been strong learners and on whom the community has relied for learning outcomes.

3.3.12 Professional learning involves trust Trust is a key aspect of developing and sustaining a capacity for professional learning (Youngs & King, 2002). Professional learning occurs in a network of trust. Teachers need to

- trust their leaders and the community to allow them to learn professionally, to support them as learners and to allow them to trial and evaluate possible teaching procedures.
- trust themselves; to believe they can learn new teaching procedures successfully, trust what they know and to solve problems in their teaching.
- trust their fellow team members to accept and support them as professional learners and to allow them to operate as learners.

Trust is necessary for developing a learning community and is fostered through effective communication (Barker & Camarata, 1998). What do school leaders need to know about the role of trust in professional learning? They need to

- ‘do professional trusting’. Through their interactions such as the dialogue they use, they show they have confidence in the knowledge of their staff and believe they can learn.
- show a trust in the change process, that it can facilitate progress to the desired outcomes. Often it is necessary to show sustained trust when unexpected obstacles arise.
- understand the role of trust in professional learning and the actions leaders can take to strengthen or reduce it. The trust teachers have for peers influences how much peer coaching improves the quality of teaching (Arnau, Kahrs & Kruskamp, 2004). Professional learning can be limited through a lack of trust among the staff.
- Recognise the indicators of trust such as the quality of what is said and done during professional learning, the valuing staff members feel in their relationship with the organization, the empowerment they experience and the extent to which they believe they are encouraged to own professional knowledge and practice (Barker & Camarata, 1998).
- Recognise that professional trust is domain or subject-specific. Individuals are more likely to trust others in some contexts more than others.
- Allow staff to learn to trust colleagues in professional learning activities. The level of trust in a professional learning community can change. Leaders may need to provide avenues for trust to be learnt.

The set of factors here can be combined to build a professional learning climate. The SLT needs to take responsibility for implementing this.

4. Leading professional learning teams : middle level leaders of learning

Just as individual learners need to manage and direct their learning, so do PLTs. The present approach to professional learning uses the concept of ‘middle level leaders of learning (MLLsL) to facilitate the learning of individuals and groups and to build a professional learning capacity.

If a school has the goal of improving its pedagogic practice, the SLT may need to provide PLTs with leaders who can foster and guide professional learning. The MLLsL guide the PLT to plan

how it will learn, to monitor its learning progress, change direction if necessary, use learning actions selectively, review and consolidate the new knowledge.

In other words, they operate as the metacognition of the PLT (Schraw & Moshman, 1995). They help the PLT to learn how to implement metacognition at a team level. They work at the interface between the SLT and individual classroom activity.

Teacher leadership is a means for building capacity for professional learning (Leithwood & Menzies, 1998). A recent innovation in school improvement has been the 'middle level manager'. Middle level managers in primary schools are the section or level managers or co-ordinators. In secondary schools they may be faculty heads or year level heads.

The term MLLL is used in this paper in a functional rather than in a managerial sense. In Bob's school, one MLLL may lead a PLT in history while a second targets technology. In a primary school one MLLL may lead a PLT in literacy enhancement in the early years while a second works in the grade 3 - 4 range. A school that intends to improve its education of students who are gifted may have 'MLLs of gifted learning' to lead staff to enhance their teaching for these students.

What knowledge do MLLsL need to lead the professional learning of colleagues? Munro (2003d) identified the following areas of knowledge for effective learning leadership:

- an in-depth understanding of the domain in which they are leading the learning.
- an understanding of adult professional learning.
- a knowledge of how to foster 'change' or 'improvement' thinking.
- a knowledge of effective pedagogy and how teachers can map their skills, conceptual knowledge and attitudes into pedagogy.
- A knowledge of the school as a learning organisation and the relationship of professional learning to the work of the school and the work of individual teachers.
- a knowledge of how to develop and foster a learning community from a group of individuals.
- an understanding of the influence of context on learning.
- an understanding of how to use resources.

School leaders need to be aware of these areas of knowledge and provide the opportunity for the leaders of the school's professional learning capacity to acquire them. These areas of knowledge are described in greater detail in Munro (2004b).

5. How will the community learn? The professional learning processes

5.1 *Different community members learn different outcomes*

In a complex organisation such as a school learning to fine tune its pedagogy, there are the three main areas or domains that Bob noted in Figure 1, in which professional learning needs to occur.

Each is defined by its functions in the school community, that it, what it does.

- The school leadership function. The professional learning here is at the global level. The SLT learns about a topic in terms of the whole school, other schools and community bodies and interprets policy at the school level. SLT learning looks beyond the school as well as 'into and across the school' in relation to any learning goal.
- the individual classroom practice or implementation function. This is the level at which the new knowledge is put into teaching. It may be put into enhanced pedagogic procedures in classrooms. It may lead to changed student or parent practise.
- professional learning level. As noted earlier, professional learning involves both individual and group collaborative learning in professional teams. Each PLT has a domain of knowledge (including beliefs) that is shared and negotiated.

In Bob's school, the PLTs were based on faculties or areas of study. One group of PLTs was responsible for science teaching. The shared knowledge of this group would include the topics usually taught in secondary science programs and the philosophy that underpins science teaching at this level. A second group of PLTs would include the teaching of history and had a corresponding knowledge. The PLTs bridge between the SLT and individual classroom practice. Each PLT operates as a mini learning community.

The notion of building a professional learning capacity at various functional levels is recognised in the NCSL's capacity building model (NCSL, 2004). The present research elaborates two of the levels in the NCSL model.

5.2 How does the community learn professionally ? The professional learning framework

What will the community actually do to learn ? What are useful actions for each functional area of the learning community ? The set of learning interactions can be applied to the three functions in a learning community. This leads to a 'how to learn' model for the community. There is, in addition, a fourth function, that of the MLLsL, the leaders of each professional learning team.

The aim of professional learning in this paper is improved teaching. As well as those who have a professional responsibility for teaching, members of the school community, such as students, parents, administrators and community members may inform the learning process. Indeed, one would expect that effective professional learning teams would have a strategic plan for learning from other community members.

To identify the types of activities which could be used to learn for each type of function, you can apply the set of learning interactions to the function. Examples of the types of questions that each function could ask for each learning interaction are shown in Table 1. Each question identifies activities in which each participant can engage and leads to specific outcomes that contribute to the overall learning outcomes of the community. The question format is used so that contextual variations between school communities are recognised.

Each interaction can lead to explicit outcomes for each function. The questions in each cell indicate the relevant learning outcomes. The outcomes at each phase informs professional learning at the following phase.

The acronym FOPL is used to refer to the focus of learning by the school community at any time. This is the knowledge that each PLT will work on. The focus could be, for example, improved literacy teaching or improved provision of students who are gifted as in Bob's school.

Table 1. The professional learning framework : The questions that each level of function would ask for each learning interaction.

	leaders of school	MLLL	PLT	teacher
a challenge or reason for learning	What challenges or expectations does school need to meet in the FOPL that it isn't ? What is the challenge for the SLT and for the school in the FOPL?	How will the MLLL lead the PLT to identify challenges / expectations in the FOPL ? How will the MLLL guide the PLT to frame up a challenge in the FOPL?	How does the PLT comprehend and respond to the challenge? What challenge does it frame up?	What is the personal challenge framed up by each staff member?
vision of the outcomes of learning, the goals	What will be the outcomes for the school given learning in the FOPL ? How will its core teaching and learning look different? How will the SLT negotiate the vision with groups in the school and allocate parts of it to school members ?	How will the MLLL communicate the vision to the PLT, lead the PLT and members to that ownership of it is taken?	What is the vision of the PLT re the change? What does it see students and staff being doing differently from what they are doing now? What is the role of each staff member in the vision?	What is the goal of each staff member re the change? What images does the teacher have of her / classroom with the novel outcome in place ?
use existing knowledge	What knowledge does the school have about the FOPL? How sufficient is it ? What are the school's attitude to /confidence in learning? What processes in the school will support the change ? What does the school know about how to manage, direct and monitor the change process ?	How will the MLLL assist the PLT to collate what it knows about the FOPL ? What procedures will be used ? How will the MLLL put in place processes to increase PLT knowledge and to facilitate collegiate learning? How will the MLLL lead group learning? How will the MLLL coach attitude change?	What does the PLT know (including experience) that is relevant to the FOPL? What are the PLT's attitude to and confidence in changing ? What does the PLT know about how to manage, direct and monitor the learning? What unanswered questions does the PLT have about the FOPL?	What does each member know that is relevant to the change? How prepared is each staff member to share that knowledge? What are the staff member's attitude to and confidence re the change?
see a pathway to the goal	What does the SLT see as a pathway to the visualised outcome for the school? What does the school see as steps to the goal? What are indicators or measures of learning?	How will the leader assist the PLT to develop and implement an action plan? How will the leader lead the group to identify indicators of success? What processes will the leader recommend to monitor progress?	What steps will the PLT take to achieve the goal? What is its explicit action plan? What are indicators of its success? How will it monitor and review progress?	What does the member see as their pathway to the visualised outcome ? What is the teacher's explicit action plan ? What are indicators of its success? How will each teacher monitor progress?

learn new ideas in specific contexts	How will/did the school learn about the topic in specific instances ?	How will the MLLL assist staff to learn new ideas, 'do' them as innovative teaching procedures and to trial them in specific contexts, perhaps using action research? How will the MLLL coach staff in specific aspects, demonstrate novel procedures, foster collaborative planning for teaching ?	How will PLT staff, in PLTs, trial and learnt about innovative teaching procedures in particular contexts for the FOPL ?	What teaching innovation did each teacher plan, do and monitor ? What did each teacher learn about enhanced instances of teaching practice?.
abstract, decontextualise what they have learnt	How do the set of professional learning gains in the school inform its code of teaching practice, enhance its policy in the area and its relationship with the broader community? How is the school's identity and standing in the community enhanced by the professional learning activities?	How will the MLLL assist staff to distil their experiences and generalise what the PLT has learnt about innovative practice and to improve its code of teaching practice	What has the PLT learnt about innovative teaching procedures ? What is the enhanced group knowledge of the PLT in the FOPL? How has its code of teaching practice been enhanced by the learning?	What new teaching procedures did each teacher learn ? What are the conditions necessary for the novel teaching procedures to be implemented?
invest positive emotion in the new knowledge	How does the SLT encourage staff to value and celebrate the gains in professional knowledge and take ownership for them?	How will the MLLL lead the PLTs to value what they have learnt and to remain motivated to engage in further professional learning?	How did the PLTs celebrate their learning success? How does the group give positive feedback to its members and encourage group ownership of the new knowledge?	What processes are used to assist each teacher to value positively the new knowledge and to implement it in teaching ?
store what they have learnt in memory, practise remembering it	What steps does the SLT take to help the staff retain the enhanced practices, for example, add them to the school's code of teaching practice, identify them as part of the pedagogic knowledge that characterizes practice in the school, communicates them to new teachers ?	How will the MLLL lead the PLTs to store in the group memory what they have learnt ?	What steps do the PLTs put in place to store the new practices in the 'group memory' of the PLT, for example, (1) identify how they will use the new teaching in topics they will teach in the future; (2) represent the key ideas as an acronym.	What steps will each teacher take to remember the new teaching procedures and to apply them in their teaching, for example, use a cue card for applying the key ideas in their teaching.
identify how they learnt, what they did that helped them to learn	What has the SLT learnt about how to guide school level professional learning? What key learning actions seemed to foster school wide learning ?	What have the MLLsL learnt about how to manage, guide and direct the professional learning of PLTs ? What were useful learning actions? What procedures will be used to assist the PLT to reflect on and identify how it learnt?	What has the PLT learnt about how to learn professionally ? What collaborative learning actions might be used in the future?`	What did each teacher learn about how to learn professionally to improve pedagogy? What actions worked best? How will these be used in the future?

see progress being made	What evidence shows professional learning success at the school level? How does the school recognise and value the progress made by each PLT and by individual teachers?	How did the MLLL assist the PLT to see progress in their learning? What were useful indicators ?	What indicators in the action plan showed that the PLT progressed in learning ? What does it know now that it didn't know earlier? What problems / obstacles can it now solve?	What indicators did each teacher use to see progress in professional learning : progress in (1) student outcomes; (2) pedagogy that solves problems; (3) confidence to enhance teaching.
automatise what they have learnt	What aspects of the new knowledge will become 'automatic' parts of the pedagogic knowledge of the school?	How will MLLL guide the PLT to automatise aspects of the new knowledge ?	How will the PLT automatise useful parts of the new knowledge so that they are used as a matter of course ? What practice opportunities will be available to achieve this?	How will each teacher automatise aspects of the new knowledge in her / his regular teaching?
transfer, apply and generalise the new knowledge	To what problems / issues at a school level can the new knowledge be transferred / generalised?	How will the MLLL lead the PLT to explore the range of applicability of the new knowledge ? How will the PLT members be encouraged to trial their new knowledge further ?	How broadly can the PLT apply the new knowledge? How far can it be transferred? What additional problems might it solve?	To what other content areas / topics could the new teaching procedures be applied? Where else would they be useful?

* This refers to the unit of change in the school, that is, the area of responsibility or domain in which the change will occur.

As noted earlier, each cell in the framework leads to explicit learning outcomes. Both the SLT and the PLTs can decide and negotiate the actual form of these outcomes for any school. Because the outcomes at each phase inform subsequent learning, they can be gradually improved. They indicate the quality of professional learning at any time, the progress being made, where the community is on its learning journey and how to take diagnostic actions if necessary.

5.3 Ways of using the learning framework to enhance professional learning

The learning framework has been used to underpin continuing professional learning of staff in a range of ways (Munro, 2003c, 2002d, 2000b) and to target some of the barriers that can arise. Some of these are summarized below. It has assisted SLTs and middle level leaders to guide professional learning towards enhanced pedagogy in a number of ways: to

- (1) coach and mentor colleagues The framework is used to identify the areas of learning and teaching that need to be coached to enhance teaching (Munro, 2000b).
- (2) provide a practical means for distributing leadership for professional learning.
- (3) collect feedback from students and to use the student voice as an indicator of the effectiveness of pedagogy. Questionnaires to do this are described in Munro (2003c).
- (4) develop a set of teaching procedures that have been used to give teachers options for improving their classroom teaching.

- (5) help PLTs to be self managing and regulating.
- (6) cater for multiple ways in which professionals learn.
- (7) analyze, evaluate (and diagnose if necessary) professional learning.

5.4 The framework facilitates school improvement The framework accommodates the six core principles for school improvement noted by Hopkins (2003). The focus on each PLT (1) framing up its challenges for improved pedagogy and integrating these with the challenge identified by the school, (2) collating, sharing and evaluating group knowledge facilitate building collective ownership, (3) focusing on the teaching and learning priorities and (4) embedding the improvement in the school's practices. Gradually evolving a code of teaching practice for (1) each teacher, (2) each area of learning and (3) the school is one aspect of this. Monitoring student and staff learning outcomes, again at an individual teacher, team and school levels allow all improvement to be evidence based. The framework asks individual teachers, teams and the school to decide the measures and behaviours it will use as indicators of progress.

6. Synthesising these areas of learning : Integrative leadership

Successful learning involves more than knowing how to learn. The learning actions need to take account of the context in which the learning occurs. In some cases the professional learning will need to be guided and directed externally. In other cases, it will set its own direction and agenda.

The school leadership team needs to decide this balance and put in place the conditions most favourable to the professional learning activity at any time. The balance is shown as follows;



As well, a school needs to remain integrated while learning. Change in part of the system needs to be in balance or equilibrium with stability in other parts. While parts of the school's knowledge changes during learning, other parts remain unchanged. The leadership team needs to ensure that the balance is in place.

The extent to which the SLT directs the professional learning depends on a range of factors at any time, including

- what is being learnt,
- the intrinsic motivation of the staff to learn it and
- the goals of the learning.

The model of the autonomous self directing and managing learner described earlier can be applied to professional learning. School leaders need to foster self managed and directed professional learning in steps that are manageable for both the learners and the organisation, and allow it to occur gradually, by putting in place the necessary conditions. The work of the leadership team here can be shown in particular examples.

6.1 The school leadership team directs the school's learning In some situations the pedagogy that a school needs to implement is well established generally but not implemented in the school. The school leadership team knows what their school needs to learn. Examples of this could

include a school with low student literacy achievement is at a level or a school with student management and discipline problems.

The staff may not implement practices known to be effective for a number of reasons; they

- (1) believe that the students in the school would not benefit from the teaching.
- (2) don't know how to use with the effective teaching procedures in the context.
- (3) don't believe they could use them successfully.
- (4) believe that the effective practice would be more difficult than their current practice.
- (5) believe that the SLT is satisfied with current levels of student achievement.

Each of these reasons needs to be confronted in constructive ways by the professional learning programme. Staff need to be assisted to frame up higher expectations for the students, be assisted to learn or re-learn how to implement the more effective teaching procedures in the context and become aware that they are expected to implement them. Collaborative professional support is likely to assist this implementation. In these situations the school leadership team, at least initially, directs the professional learning agenda.

Anne's school provides an illustrative scenario. It was formed by combining two seriously underachieving schools. Her school inherited many of the teachers and the students from the earlier schools. She had a year to show that her school was progressing satisfactorily. With her leadership team, she devised an approach to pedagogy that the team believed would start the school on the road to progress. She judged that her teaching staff needed to learn how to implement the pedagogy as a professional learning community. To allow this to happen in the context of the school at that time, the team decided that the approach to teaching would be implemented by all teachers. Alternative approaches to teaching, or individual modifications to the pedagogic approach were discouraged.

One year on, Ann's school was showing considerable improvement. During the year the leadership team exerted considerable effort in coaching and demonstrating the teaching procedures in all classrooms. Student learning and achievement were monitored regularly.

The consistent and systematic approach to pedagogy and student management paralleled substantial gains in student learning outcomes, a reduction in behavioural problems and the evolution of an increasingly positive learning culture in the school. An explicit code of teaching began to underpin the work in all classrooms. Staff saw their teaching influencing directly student achievement.

Once this had been achieved, the leadership team encouraged evaluation of the teaching and curriculum provision by staff. Staff suggested ways in which they could be improved and an action plan for modification was designed and implemented.

In Ann's school, the leadership team gradually fostered and guided a professional learning capacity. As this grew, the team encouraged an increased focus on self managed professional learning.

6.2 The school leadership team does not know what their school needs to learn In other situations the school leadership team knows what it wants as outcomes but is not as clear about the teaching procedures necessary to deliver them in the context of the school. The teaching

procedures necessary to deliver these outcomes in the specific context of the school are not well established. This was the situation in Bob's school. Bob and his leadership team believed that the school has the capacity to trial and evaluate possible teaching approaches.

The leadership decides that the professional learning capacity of the school is such that the staff could largely self manage its learning to identify the most appropriate procedures.

6.3 *Balancing leader directed versus self directed professional learning* The difference in self directed professional learning between Ann's and Bob's schools illustrate an aspect of the balance that school leadership teams need to implement. In the first type of situation, the leadership team exerts a greater managerial and directive style than in the second. In the second, the leadership team trusts the PLTs to experiment with, trial and evaluate various procedures and to up-date their practice accordingly. In the first context, the leadership team needed to explicate a set of goals pathway indicators and action plans. They needed to identify what individual staff know and orient this in the direction of the desired changes.

It is this type of balance, between direction and self managed and directed learning, that the leadership team will implement in professional learning. In the first type of situation, open-ended freedom to implement the established procedures was seen as inappropriate; outcomes were improved when they are implemented. In the second type of situation, inappropriate control, management and direction imposed by the leadership team may limit the breadth and depth of the outcomes achieved through the exploratory activity of the professional learning teams.

The extent of balance is dynamic and would be expected to change. It is one aspect of the integrative leadership of professional learning. A second aspect relates to the balance between the learning activity at each of the functional levels of the school noted earlier. Integrative leadership synthesises the professional learning outcomes of each. It decides the balance between directed management and self-managed autonomous learning. Effective school leaders identify the various outcomes and indicators of extent of balance and to take steps to adjust it.

The trend towards more autonomous direction of professional learning is, in some ways, similar to trends in the direction and control of educational provision in England over the past two decades. Barber (2002) and Hopkins (2003) note a trend from self management of educational provision by schools in the 1970s to central government control in the 1980s that was not evidence or knowledge based (uninformed prescription) to central control that was largely data or knowledge based (informed prescription) to greater self management by schools that is knowledge and data based. To allow the knowledge-informed self management to evolve, a number of conditions were seen as necessary. These include decreasing non-teaching demands on the roles of teachers, providing more time for teachers' professional learning and improving accountability.

The trend towards self directed professional learning within a school may be similarly based on the display of explicit knowledge that informs the learning. A school leadership team could estimate the extent of autonomous learning potential in the school or a PLT by looking at what the school or PLT knows or can do in terms of knowledge enhancement. Indicators include the actions needed for knowledge enhancement, measures for monitoring group knowledge and procedures for identifying and framing up challenges. A PLT or school that did not know how to initiate learning effectively would obviously require more direction.

6.4 *The interaction between the school leadership team and the MLLsL.* A key aspect of the professional learning capacity in a school community is the regular collation and integration of new knowledge across the community, the alignment of the learning action plans of the PLTs with the learning action plan for the community as a whole and re-negotiation and alignment of the vision of

each PLT with the vision of the school. The quality of professional learning will be influenced by the quality of the reciprocal relationship between the MLLsL and the school leadership team.

The MLLsL need a functional relationship with the school leadership team that allows professional learning to proceed most effectively. In some schools, some MLLsL will also be members of the leadership team. While earlier studies have not examined this relationship for MLLsL specifically, the relationship for teacher leaders generally has attracted attention. Anderson (2004) identifies three main categories of the relationship between teacher leaders and school leaders.

School leaders need to be aware of how the relationship can be most functional. Obviously, the potential for developing a professional learning capacity would be influenced by the quality of this relationship.

The effective selection of key teacher leaders and their involvement in the change processes of a school is an indicator of the effectiveness of school leadership (Anderson, 2004; Whitaker 1995). School leaders who do not understand the selection process may be less likely to utilize a potentially valuable contribution to their improvement. A similar relationship would probably exist for the strategic selection and involvement of MLLsL.

8. What does a school community with a well developed professional learning capacity look like ?

From the work done in a range of schools at the primary and secondary levels in Australia (Munro 2002d, 1996c), it is possible to identify the characteristics of a school with a demonstrated learning capacity. Characteristics / indicators include the following:

Knowledge and learning are valued for their contribution to the community.	The school community is continually growing and evolving, forming new relationships. It expects to re-create itself through the learning. It implements explicit learning or knowledge enhancement activities systematically; it does learning . Its dialogue is about the learning process and it believes it can learn. Knowledge enhancement is seen as the pathway to the future. The leadership team deals with issues and looks to the future from an explicit learning perspective. The leaders are seen as 'leaders of learning' and 'leaders in learning'.
The school is aware of its knowledge at any time in particular areas.	It is aware of what it knows about specific issues because it has in place procedures for 'harvesting' and collating the knowledge of its members. It is also aware of how it knows, the actions it has implemented to learn, its attitudes to the knowledge and the context of the learning.
The school acts as a learning community	It acts as a learning community (for example, it negotiates goals, distributes the learning activity, it trusts its members, it values their knowledge). It develops a capacity for the professional learning to be guided, directed, fostered, scaffolded (MLLsL). The MLLsL catalyze the learning of professional learning teams in the school. It (1) expects, identifies and values knowledge gains from members and PLTs; (2) regularly collates and shares group knowledge with the community of learners; (3) reviews, evaluates the outcomes of the learning, uses relevant outcomes into enhanced knowledge / practice and modifies the community's code of pedagogic practice; (4) regularly collates what it learns about how to learn as a community and talks about its attitudes to learning and knowledge; (5) implements actions that involve further planning and learning.
Ideas are discussed and evaluated on the basis of their intrinsic worth	A range of influences, for example, . political, cultural, economic or institutional influences can restrict the sharing of ideas within a community. An organisation with a strong learning base, recognises and, where appropriate, them. Ideas are transacted with these influences reduced.

Learner-centred teaching is the focus.	It understands student learning and uses this as a goal for professional learning; it can recognise student learning, implement the conditions for learning, can monitor student learning. Multiple ways of learning rather than homogeneity are encouraged. The focus is on understanding a world of interdependency and change rather than memorizing 'correct' knowledge.
Explicit indicators of learning	The school has in place explicit indicators of learning and uses these to chart the progress / growth of the community. It develops broad, explicit action plans for learning.
A focus on improving teaching practice	The school aims to improve pedagogic practice and sees it as a key route to enhanced performance and achievement. It provides an integrated, systematic professional teaching framework. It has a clear and explicit focus on building pedagogic capital as an explicit goal. Pedagogy has a high priority when the school reflects on its progress and plans for its future.
A knowledge of learning is valued	The school has a strong focus on the value of a knowledge of learning and how this can contribute to the work of the community. It identifies what the school cohort / community knows about learning and attitudes to learning at any time. This is shown in the focus on collaborative professional development within the school.
Students and staff take leadership roles in learning and teaching.	Students and staff are encouraged to take leadership responsibilities for aspects of the core work of learning and teaching. Students' perceptions of the world have a key role in the learning. Their passion for learning, their imaginations and ways of seeing things are valued. The school helps staff to learn how to be leaders in areas of pedagogy, leaders of learning, to coach colleagues, etc.
Teachers have time for self evaluation and reflection	The school allocates time for teachers to engage in on-going self evaluation and reflection of self learning and pedagogy and provides opportunity for analysis of teaching practice at the PLT, faculty, department or learning area level. The school expects its staff to engage in this practice.
High quality learning outcomes are valued	High quality learning outcomes are obviously valued, recognized and celebrated. These are not necessarily high scoring outcomes but show high levels of creativity and innovation. The school displays a valuing of knowledge outcomes and encourage knowledge to be displayed.
Dialogue about learning and pedagogy is valued	The school values a high level of functional dialogue, debate and discussion about learning and pedagogic issues. This is initiated and guided by school leaders.
Pedagogic leadership is explicit and systematic	Pedagogic leadership at various levels of the school is explicit and systematic. Responsibility for leadership in various areas of pedagogy is elaborated and clear.
The school is confident in its capacity to learn	The school displays a belief in its capacity to learn, to innovate and to adapt to change. The school sees its processes and structures at any time as relevant to its purposes and challenges at that time. It is not 'fazed' by the challenge to modify its practice in particular ways.
Each unit has an explicit, plan for enhancing teaching.	Each PLT, faculty, department or learning area has an explicit, forward looking plan for instructional enhancement, is aware of a range of teaching options and uses them selectively.
The school is organised in terms of knowledge enhancement	The school organises its classes, instructional delivery, teaching times, in terms of what is known about effective knowledge change and focuses on 'knowledge enhancement'.

Reviews of the attributes of effective school improvement programs (for example, Hopkins, 2003) are consistent with this set of characteristics. School leaders can lists such as this to generate indicators for describing their own school at any time and for directing its future progress.

Conclusion

Successful schools are innovative. They have a sound knowledge base that they can use to transform their practice. Transformation varies in the extent of its creativity (Hargreaves, 2003).

To be innovative or creative in a particular domain of knowledge, you need to apply to that knowledge a range of thinking strategies such as inferring aspects of the future, thinking divergently, engaging in possibilistic thinking, multiple perspectives thinking, speculating and engaging in far transfer (for example, Cropley & Urban, 2000).

This is the approach to learning developed in the learning framework. Groups of learners use their existing knowledge to learn new ideas, first in specific situations and then to think creatively about them. Staff speculate and visualise possible outcomes for a problem, planning pathways, think about the ideas in a range of ways, collate the new knowledge of the group and engage in systematic far or remote transfer.

The focus in my talk has been on how schools, as learning communities can learn and enhance their core work by using an explicit model of learning. We have looked at what a professional community can do to learn and how the learning of professional learning groups can be operationalised. School leaders can use it to lead a learning community and to guide professional learning.

School leadership teams (SLTs) are more able to build in their community a capacity to learn professionally when they understand the factors that influence this learning. This includes an operational knowledge of the following propositions:

- A school can learn professionally when it can easily and efficiently modify its teaching practice in particular ways to lead to enhanced student learning opportunities.
- The unit for effective professional learning is the PLT.
- The learning activity of the PLTs and members is more consistent, systematic and successful when it is underpinned by an explicit model of professional learning.
- The PLTs assist staff to map their enhanced knowledge into improved classroom practice.
- The learning activity of each PLT is determined by the particular domains and contexts in which team members work.
- The professional learning of each PLT can be focused and scaffolded by MLLsL.
- The leadership of professional learning will be distributed both within and beyond the professional learning community.
- A SLT can appraise its school's capacity and culture for professional learning by estimating factors such as: (1) its relevant knowledge and skills; (2) its preparedness to learn or change; and (3) the level of knowledge it would need to scaffold and support the change.
- The PLTs plan how they will learning, negotiate goals and purposes, review and collate knowledge at various times and develop enhanced pedagogy.

- The learning activity of each PLT is led by a middle level leader of learning or MLLL, who fosters and supports staff learning, both in groups and individually. MLLsL assist each PLT to manage and direct its learning, to plan, use what it knows in strategic, systematic ways and to review and consolidate what it has learnt.

In my talk this afternoon I would like to unpack the concept of a professional learning capacity for enhancing gifted and talented learning. It ask the question : What would a school be doing when it is learning professionally to optimise the learning progress of gifted students ?

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