The Department of Education & Training

Professional Learning in Effective Schools

The Seven Principles of Highly Effective Professional Learning

Knowledge&Skills Building a Future

Victoria The Place To Be

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Foreword

> *A central part of the practice of improvement should be to make the connection between teaching practice and student learning more direct and clear. The present generation of students deserve the best practice we can give them and their learning should not be mortgaged against the probability that something good will happen for future generations. Improvement should be focused directly on the classroom experience of today's students (*Bridging the Gap Between Standards and Achievement: The Imperative for Professional Development in Education*, Richard Elmore 2002, p. 31).*

The success of the Government's *Blueprint* reform agenda for the Victorian government education system rests ultimately with our teachers and educational leaders. If we are to realise continuous improvement in the quality of teaching and learning in our classrooms, schools and system we must build the capacity of our educators to meet these expectations.

This will require more than simply allocating additional resources for professional development programs. It will require us to understand what teachers must know and do to improve student learning. Most importantly, we need a model of learning that informs all the opportunities provided for teachers to engage in the improvement of their practice over time.

Professional Learning in Effective Schools outlines a vision for professional learning in Victorian government schools. It unpacks the seven principles of highly effective professional learning, which were identified by the Department of Education & Training in 2004, and describes the conditions that support the implementation of the Principles. The paper will be used to inform the design of teacher learning initiatives at all levels of the system – school, network, region and centre.

As a school system, we have a shared responsibility to improve student learning outcomes. We also have a reciprocal responsibility to provide teachers with extended opportunities to build on what they already know about effective learning and teaching.

I hope that the seven principles of highly effective professional learning discussed in this paper inform and enrich conversations in your school community about the importance of providing quality learning opportunities for all teachers.

Darrell Fraser

Deputy Secretary
Office of School Education

Introduction

Teaching is complex and demanding work that requires highly specialised skills and knowledge to impact significantly on student learning. Improving the learning outcomes of all students regardless of their socioeconomic background or geographic location is the Victorian Government's key objective for education. This objective is embedded in the *Blueprint for Government Schools* (Department of Education & Training 2003), which outlines the Government's education reform agenda. In recognition of the correlation between effective teaching and student achievement, enhancing the skills and knowledge of the education workforce is a key *Blueprint* priority.

This paper outlines a vision for professional learning in Victorian government schools, in which teachers engage in effective, ongoing professional learning to develop progressively higher levels of expertise. It builds on an earlier paper titled *The Professional Learning of Teachers* (Department of Education & Training 2004a), which identifies seven principles of highly effective professional learning (the Principles, Appendix A). The Principles make explicit the key characteristics of effective professional learning and provide a common language for describing good practice. Central to the vision is recognition that, as professionals, teachers need to update their skills and knowledge continuously, not only in response to a changing world but in response to new research and emerging knowledge about learning and teaching.

Professional Learning in Effective Schools uses the Department of Education & Training's Effective Schools Model (Appendix B) to illustrate the culture and conditions necessary to implement an effective professional learning program (adapted from Sammons, Hillman & Mortimore 1995). It unpacks the principles of highly effective professional learning and, through the lens of effective leadership, learning communities, professional learning teams and the concept of a performance and development culture, shows what the Principles look like in practice.

Rationale for effective professional learning

The *Blueprint for Government Schools* places teacher quality at the very centre of learning. It is based on research that consistently highlights the quality of teachers as a key determinant of variation in student achievement (Ferguson & Ladd 1996; Wenglinsky 2000; Darling-Hammond 2000). The research asserts that, in order to be effective, teachers need a deep understanding of their subject area, knowledge of how students learn specific subject matter and a range of strategies and practices that support student learning. The research also affirms that engaging teachers in high quality professional learning is the most successful way to improve teacher effectiveness (Greenwald, Hedges & Laine 1995; Guskey & Huberman 1995; Elmore & Burney 1997; Hawley & Valli 1999; Elmore 2002).

Furthermore, teaching is a dynamic profession and, as new knowledge about teaching and learning emerges, new types of expertise are required by educators. Teachers must keep abreast of this knowledge base and use it to continually refine their conceptual and pedagogical skills. The field of inquiry that has had most significance for teachers and teaching is that of how students learn. The growing evidence base about student learning forms a compelling case for engaging teachers in highly

effective professional learning and has profound implications for what is taught, how it is taught, and how learning is assessed (Bransford et al. 2000).

The *Blueprint* is informed by research on learning and learners and on teachers and teaching. The *Victorian Essential Learning Standards* (Victorian Curriculum and Assessment Authority 2005), which define what students should know and be able to do at different levels of schooling, are based on recent research on the learning process and how students develop expertise in different intellectual domains (Bransford et al. 2000). The Standards are focused on learning for understanding and developing students who can apply their knowledge beyond the classroom to new and different situations. The assessment principles that will accompany the Standards are also designed to reflect how students actually learn and to support teachers to measure student progress against the Standards.

Concurrently, the *Principles of Learning and Teaching P–12* provide a basis for teachers to purposely select appropriate teaching strategies, review their teaching practices and identify key areas for improvement (Department of Education & Training 2004b). They are derived from research on effective teacher practice and encapsulate those theories of learning that impact on teaching and the design of successful learning environments.

A vision for professional learning in Victorian government schools

The main aim of the Department of Education & Training is 'an assured future for all Victorians and a prosperous society through learning'. The *Blueprint* contributes to the achievement of this aim through a number of initiatives designed to support all young people to become creative, adaptable and self-directed learners. Professional learning for teachers plays a critical role in this endeavour by equipping them with the expertise, skills and knowledge they need to develop these capacities in students.

The seven principles of highly effective professional learning restated in this paper call for professional learning that is collaborative, embedded in teacher practice and aimed at bridging the gap between what students are capable of doing and actual student performance. Professional learning that is consistent with the Principles is ongoing, school-based and directly relevant to the daily work of teachers. Student outcomes data provides the focus of professional learning and is used to evaluate the impact of that learning on teacher practice and student achievement.

The Principles contest a common belief that professional development is an individual and self-improvement task, removed from the school context and not explicitly linked to the improvement of student learning. Effective professional learning runs at odds with traditional professional development programs in the form of one-off seminars, conferences and workshops. Research shows that one-off events usually do not appreciably enhance the learning of teachers or their students. They only work when they provide opportunities for teachers to test their learnings in the classroom and include follow-up and feedback (McRae et al. 2001; Hawley & Valli 1999; Little 1999).

At a broader and more ambitious level, the Principles will lay the foundations for the development of a culture where schools are routinely and typically seen as places where both teachers and students learn, where professional learning is a normal part of every teacher's daily routine rather than something extra that teachers are required to do. In short, they aim to embed professional learning in the daily work and culture of every school and the system as a whole.

The skills and knowledge of an effective teacher

Effective professional learning focuses on developing the core attributes of an effective teacher. It enhances teachers' understanding of the content they teach and equips them with a range of strategies that enable their students to learn that content. It is directed towards providing teachers with the skills to teach and assess for deep understanding and to develop students' metacognitive skills.

The skills and knowledge of an effective teacher are defined in the Department of Education & Training's *Dimensions of Teaching and Professional Standards* (2004c; see also Victorian Institute of Teaching 2004). It encompasses the following three elements of teaching shown to be most effective in *How People Learn: Brain, Mind, Experience and School* (Bransford et al. 2000, pp. 19–21), an authoritative summation of the research on how students learn and the environments that support learning.

1. Effective teachers draw out and work with the pre-existing understandings that their students bring with them.

Effective teachers will actively inquire into students' thinking, creating classroom tasks and conditions under which student thinking can be revealed. Students' initial conceptions then provide the foundation on which the more formal understandings of the subject matter are built.

Frequent, formative assessment is used by effective teachers to make students' thinking visible to themselves, their peers and their teacher and to monitor student learning progress. Assessments tap students' understanding rather than merely the ability to repeat facts or perform isolated tasks. They also provide feedback to guide modification and refinement in students' thinking, teaching practice and curriculum and planning.

Effective teachers are aware of preconceptions that affect the mastery of particular subjects. They draw out misconceptions and work with students' preconceptions so that students build on them, challenge them and, where appropriate, replace them.

2. Effective teachers teach some subject matter in depth, providing many examples in which the same concept is at work and providing a firm foundation of factual knowledge.

Effective teachers undertake in-depth coverage of fewer topics in a subject area rather than covering all topics superficially in order for key concepts in that discipline to be understood. The goal of coverage is not abandoned entirely. However, there must be sufficient in-depth study to allow students to grasp the defining concepts in specific discipline domains.

Effective teachers come to teaching with experience of in-depth study of the subject area – the facts, concepts and procedures that underpin a discipline and the relationships between them. They have a solid understanding of the growth and development of students' thinking about these concepts.

Assessment tests deep understanding rather than surface knowledge. Because assessment is the tool by which teachers are held accountable, effective teachers align new assessment tools with new approaches to teaching, including the aim of teaching for understanding.

3. Effective teachers focus on the teaching of metacognitive skills, integrating those skills into the curriculum in a variety of subject areas.

The process of metacognition is clearly explained and modelled by effective teachers. Metacognition, or 'thinking about thinking', refers to higher order thinking that involves being aware of, and having control over, the thinking processes involved in learning. Metacognitive activities include planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task.

Effective teachers understand that metacognitive skills are essential for independent learning. Activities that develop metacognitive ability are consciously integrated into the curriculum and the teaching of all subject matter.

The skills and knowledge of an effective teacher are summarised by Bransford et al. as follows:

> *Expert teachers have a firm understanding of their respective disciplines, knowledge of the conceptual barriers that students face in learning about the discipline, and knowledge of effective strategies for working with students. Teachers' knowledge of their disciplines provides a cognitive roadmap to guide their assignments to students, to gauge student progress, and to support the questions students ask. The teachers focus on understanding rather than memorisation and routine procedures to follow, and they engage students in activities that help students reflect on their own learning and understanding (p. 188).*

Professional learning in a performance and development culture

A key initiative in the Department of Education & Training's reform agenda is *Creating and Supporting a Performance and Development Culture* (2004d). This initiative enables schools to develop an understanding of the conditions and practices that are necessary to create and support a performance and development culture through the provision of a flexible, transparent accountability framework. It is based upon an accreditation process, the first part of which is self-assessment gathered from multiple sources of school and student outcomes data. The initiative's Self-assessment Framework articulates how schools can use their data to align teachers' individual learning needs with school priorities, goals for student learning and teacher professional learning. The accreditation process comprises five elements:

1. induction for teachers new to the school
2. use of multiple sources of feedback on teacher effectiveness for individual teachers and teams of teachers
3. customised individual teacher development plans based on individual development needs
4. quality professional development to meet individual development needs
5. belief by teachers that the school has a performance and development culture.

The Performance and Development Culture Self-Assessment process provides an opportunity for schools to engage their teachers in highly effective professional learning. The significant benefits of this process to schools, including enhanced student outcomes, can be maximised by the provision of effective professional learning to address areas for improvement of individual teachers' professional practice. The collaborative nature of effective professional learning, combined with the enriching, supportive and motivating environment that a performance and development culture generates, has the capacity to realise significant school improvement.

Effective schools and professional learning

The vision outlined above is characteristic of effective schools, where good practice in teacher professional learning is understood and supported. The Effective Schools Model is being used in Victorian government schools to stimulate debate around school effectiveness and school improvement research. The eight characteristics of a highly effective school are being explored and defined through a range of initiatives to build a greater collective understanding of the strategies that impact on school performance.

What are the features of an effective school? Effective schools are distinguished by professional leadership motivated by the desire to build a vibrant professional learning community. They are defined by an agreed vision and goals, purposeful teaching and high expectations for student learning. Effective schools have rigorous systems of accountability, a focus on teaching and learning, and stimulating and secure learning environments.

Very importantly, an effective school has agreed expectations and coherence around the quality of teaching required to impact on student performance. A constant focus on teaching and learning is entrenched in the culture of an effective school. Supported by effective leadership, effective schools provide ongoing learning opportunities for teachers to develop the skills, knowledge and dispositions necessary to teach to higher professional standards.

Leading professional learning in effective schools

An extensive research base supports the view that leadership is the most important element of an effective school (Sergiovanni 1984; Elmore 2000; Stoll 2004). Effective leaders articulate the types of improvements required to achieve agreed goals and expectations and develop a common language for describing good teaching and learning practices. They have a clear understanding of the change process and a deep, current and critical understanding of how people learn. Effective leaders engage their staff in professional discourse, drawing on external ideas and research to inform their thinking and actions, and encourage them to reflect on what they are trying to achieve with students and how they are doing it.

Just as effective school leaders have an explicit vision of effective teaching and learning, they also understand effective professional learning and how it can be put into practice as part of an overall strategy for school improvement. They create organisational conditions that are conducive for teachers to continuously improve their teaching practice by providing encouragement and fostering an environment that values sharing, trust, risk-taking, experimentation, collaborative inquiry and self-assessment. Effective leaders provide learning opportunities for teachers to develop the knowledge, practices and attitudes that are needed to achieve agreed goals and expectations. They facilitate opportunities for staff to learn from each other, provide access to specialised knowledge and model continuous learning in their own practice. Effective school leaders also continuously evaluate the impact of professional learning on the basis of the effect it has on student achievement.

In effective schools, leadership is expected to be a quality of all staff. Teams and individuals demonstrate leadership and willingly accept leadership responsibilities in order to contribute to school improvement. This expectation is supported by the creation of both formal structures to develop the leadership capabilities of teachers and informally by virtue of teachers being a part of a learning community that values, and believes in, continuous improvement.

Effective schools are learning communities

Effective schools are learning communities, the core element of which is a culture of collaboration and collective responsibility for the development of effective teaching practices and improved student achievement. Teachers cannot be expected to create vigorous learning communities among students if they have no parallel community that nourishes them professionally (Department of Education & Training, 2004b).

Being part of a learning community means contributing to the learning and knowledge base of the school and the school community. It is not simply about the pursuit of individual learning goals, but sharing knowledge for the benefit of the community and the achievement of its goals and vision. A learning community values diversity and maintains a focus on the continuous enhancement of teaching for all members of the community. Consequently, learning communities allow dissent and debate among members. Tradition and the 'way we do it here' attitudes are challenged and discussed, leading to new understandings, insights and practices.

Learning communities also respect and acknowledge that teachers are adult learners who learn in different ways, come from different backgrounds, work in a variety of context specific settings, and cater for the needs of diverse students. They recognise that teachers have individual needs, different motivations for learning, and prior knowledge and experience that will impact on the type of learning they choose to engage in.

Models of professional learning

Professional learning teams

Professional learning teams are an effective means of developing a culture of collaboration and collective responsibility in schools. In professional learning teams teachers remain accountable for individual students. However, they also take responsibility collectively for improving instructional practices to achieve gains in learning for all their students.

Genuine team-based work implies more than the simple act of working alongside colleagues. It involves teachers working in a spirit of openness and critical reflection, sharing their experiences, ideas and expertise with each other and engaging in an ongoing process of inquiry that promotes deep team learning. The work of teams is guided by a clear and systematic model of problem-solving and learning, one that encompasses a learning→application→refinement→application cycle.

Effective teams focus on improving student outcomes. They make their professional learning student centred by analysing the differences between what students are capable of achieving and actual student performance. They engage directly with the subject matter they teach and how they teach it. Effective teams use research-based information to develop teaching strategies matched to the learning styles of their students in order to engage them with that subject matter. Teams regularly collect and analyse student learning data to assist in defining the content of their professional learning and also collect information at the teacher and school level to evaluate the impact of their work. They meet regularly for an extended period of time so they have the opportunity to learn, reflect, refine and re-apply their learnings.

Any significant change that is likely to improve teachers' expertise and enhance student learning will be gradual and often difficult. The time and effort that is needed to learn how to work as part of a team may increase teachers' workloads, especially at first. Developing the trust and confidence to take risks, experiment and work collaboratively requires perseverance because it is in conflict with the norm of autonomy that has historically characterised the work of teachers. Nonetheless, when implemented effectively a team approach can reduce variations in learning outcomes between classes. This is because teachers actively support each other to construct knowledge and develop pedagogies that have the capacity to improve student learning. While students are clear beneficiaries of a team-based approach, benefits also flow to teachers by growing their knowledge, skills and confidence, and to schools and the system through school improvement.

Leading professional learning teams

Professional learning teams need leaders with a deep understanding of effective professional learning and how to work with team members to develop skills that will improve student achievement. Leaders may need to act in the role of coach or mentor; model good practice; help with the provision of resource materials; and facilitate and make available research into effective learning and teaching. They may organise visits to other schools to observe innovative practice; facilitate problem-solving activities; encourage risk-taking; link team members with each other; contract outside expertise when

necessary; and engage in advocacy for projects across the school community. Leaders also need to assist in evaluating the impact of the professional learning team on teacher knowledge, classroom practice and student learning.

Leaders also need knowledge of effective professional learning models. The following models can be used to help teachers analyse and reflect on the impact of their practice and generate ideas for improvement. Loucks-Horsley et al. (2003) draw attention to the need to match the professional learning model to the purpose of the professional learning program. The appropriateness of any particular model varies depending on the goals, the content and the context of implementation.

Action Research

Action research is a strategy for learning more about the teaching and learning process. Teachers decide what questions are important to examine in order for them to gain insight into what is happening in their classroom. It involves selecting a focus, collecting, analysing and interpreting data and then taking action. The model is based on the belief that teachers have the ability to formulate valid questions about their own practice and pursue objective answers to these questions. Action research assists teachers to become more reflective practitioners and more systematic problem solvers.

Examination of Student Work

Collaboratively examining students' work enables teachers to understand how students think, permitting them to develop appropriate learning and teaching strategies and materials. Teams first identify a clear focus for their work and what outcomes they expect. The most fruitful discussions result from using examples of student work that are varied in nature and quality, for example, written work from several students in relation to the same assignment that includes students' explanations of their thinking. The team then reflects on the implications of what is learned for teaching. The discussions highlight the ways in which teachers can enhance their teaching based on what they have learned about student understanding of important concepts.

Study Groups

Study groups engage in regular collaborative interactions around topics identified by the group. This provides opportunities to reflect on classroom practice and analyse student learning data. Groups can also read and discuss educational research publications in a collaborative and supportive environment, over an extended period of time. The study group model can include the entire staff of a school in finding solutions to common problems. Opportunities are then provided for groups to share their findings and recommendations with other staff members.

Case Discussions

Case discussions provide teams of teachers with the opportunity to reflect on teaching and learning by examining narrative stories or videotapes depicting school, classroom, teaching or learning situations or dilemmas. They are usually brief, rough-and-ready evidence of what students have done, said or written in class. Case discussions promote reflective dialogue and enhance teachers' ability to describe, analyse and evaluate their teaching.

Peer observation

One of the most effective ways to learn is by observing others, or being observed and receiving specific feedback from that observation. Analysing and reflecting on this information can be a valuable means of professional growth. The most effective observations are well planned, focused on specific issues and with follow-up to document improvements. Peer observation promotes an open environment where public discussion of teaching is encouraged and supported.

Lesson Study

Lesson study helps teachers to prepare lesson plans and develop a deeper understanding of how students learn specific subject matter. A small group of teachers meets regularly to plan, design, implement, evaluate and refine lessons for a unit of work. One member of the team conducts the lesson while other members of the team observe it. In concert with their observations and reflection, the lesson is modified and may be taught again by another member of the team. The aim of the model is to promote a process whereby teachers experience gradual and incremental professional growth through the collaborative development of lessons.

Other pathways to learning in a learning community

Professional learning teams are but one way to improve teacher practice and student learning. The very nature of a learning community, where collaboration and sharing is the norm, means that much professional learning occurs informally, and may not always be team based or delivered in the school.

In a learning community, teachers learn about teaching through daily conversations with their colleagues. In the school staff-room, for example, teachers may share their knowledge of effective teaching practices, complex subject matter, the learning styles of different students, new assessment practices or strategies for classroom behaviour management. Informal interactions like these constitute an important form of collegial support and learning for teachers.

Other learning opportunities are also available in learning communities. Structured mentoring programs are established, allowing experienced and competent practitioners to be partnered with less experienced or beginning teachers in order to promote professional dialogue and act as professional role models. Coaching is also a powerful form of one-to-one learning, involving two experienced teachers working and learning together. A coaching partnership can be a particularly effective means of helping teachers to implement significant changes in the classroom, for example, to trial a new teaching strategy or a unit of work.

In a learning community, professional learning is anchored in the school-based work of teachers. However, sourcing expertise from beyond the school can enrich school-based programs with knowledge, ideas and an outside perspective. For instance, when a particular type of expertise is required but cannot be sourced from within the school it may be necessary to invite an expert into the school to work with individual teachers or professional learning teams.

Attending seminars and workshops or participating in courses is also necessary when teachers need to learn specific knowledge and skills, such as deepening their understanding of key subject-matter concepts. In cases where teachers attend external learning activities there should be an explicit, school-based process for feeding those learnings back into the school and the practice of teachers.

The role of the school system

The purpose of school education is to develop young people who can prosper in a modern, globalised world, a purpose that can only be realised through the daily work of teachers and school leaders. The role of the system is to help develop a culture of continuous improvement in schools that provides teachers and leaders with opportunities to participate in high quality professional learning.

The central office and regions of the Department of Education & Training are working in partnership to translate the research base into effective professional learning opportunities for teachers and school leaders through a coherent and integrated set of initiatives. The system continuously collects and analyses student, school and system data in order to assist schools to monitor their individual performance and develop the capacity to manage their own self-improvement. The provision of a flexible, transparent accountability framework provides the means for spreading effective practice across the system and for becoming more responsive to immediate and future school needs in terms of planning and achievement.

The system plays a critical role in raising awareness and encouraging debate about what teachers and school leaders need to know and be able to do to improve student learning. The system promotes and engages teachers, schools and the wider education community in professional conversations to facilitate the development of a shared language for describing effective schools, effective leaders and effective teachers. Using research-based models and guiding principles to focus attention on the correlates of school effectiveness, the system designs strategies that provide schools, leaders and teachers with the incentive and opportunity to reach beyond their current practice and performance.

Conclusion

The importance of effective teaching in global, knowledge-based societies cannot be overstated. In a world that is rich in information and communication technologies, and characterised by complex social, economic, cultural and political interactions, young people need high level problem-solving skills and an ability to apply knowledge to new and different situations. The extent to which students develop these capacities will depend in large part on the quality of teaching they experience at school.

But teaching is complex and challenging work. Teachers need in-depth knowledge of the subject areas they teach, how students learn that content and an understanding of classroom environments that optimise learning. They need access to ongoing, high quality professional learning opportunities to develop and enhance the necessary skills and understandings. Like the members of other professions, teachers need to be continuous learners who see their own learning as being fundamental to membership of the profession rather than something that is incidental or optional.

The extent to which a school promotes the conditions for effective professional learning depends largely on its organisational culture – the beliefs, attitudes, values, knowledge and skills of its teachers and leaders. Effective schools have cultures that value continuous learning and encourage all staff to reach progressively higher levels of performance. Importantly, effective school leaders know how effective professional learning can be put into operation as part of an overall strategy for school improvement.

Investing in professional learning is the key to ensuring that schools become learning communities where teachers work together, learn from each other and share best practice on effective teaching and learning. It is only through the collective work of teachers and by creating a shared professional knowledge that sustained school improvement will be secured.

Appendix A: The seven principles of highly effective professional learning

The seven principles are designed to underpin the delivery of high quality professional learning to improve student outcomes and apply to all levels of the system – school, network, region and centre.

Principle 1: Professional learning is focused on student outcomes (not just individual teacher needs)

Professional learning is aimed at maximising student learning so that all students achieve their learning potential. Using multiple sources of student outcomes data, teacher professional learning should be guided by analyses of the differences between goals and standards for student learning and student performance. Such analyses will define what teachers need to learn, make teacher professional learning student centred, and increase public confidence in the use of resources for professional learning. Student outcomes will improve if professional learning increases teachers' understanding of how to represent and convey content in meaningful ways.

Principle 2: Professional learning is focused on and embedded in teacher practice (not disconnected from the school)

Teacher professional learning should be school based and built into the day-to-day work of teaching. The most potent and meaningful learning experiences occur in the school, where teachers can address the immediate problems and challenges of learning and teaching. Being situated close to the classroom and their colleagues enables teachers to work together to identify problems, find solutions and apply them.

This does not imply that beyond school learning experiences, such as postgraduate studies or attendance at workshops and seminars, are not valuable. External learning opportunities can complement school-based professional learning. Professional learning should be anchored in the school-based work of teachers but enriched with ideas and knowledge sourced from outside the school.

Principle 3: Professional learning is informed by the best available research on effective learning and teaching (not just limited to what they currently know)

Teacher professional learning that improves the learning of all students prepares teachers to apply research to decision-making. Successful professional learning programs immerse teachers in the content they teach and provide research-based knowledge about how students learn that content.

Results of research need to be made accessible to teachers to enable the expansion and elaboration of their professional knowledge base. This research should include information on effective teaching and learning, how students learn particular content, classroom management, assessment and curriculum.

Principle 4: Professional learning is collaborative, involving reflection and feedback (not just individual inquiry)

Teacher professional learning opportunities should relate to individual needs but be organised around collaborative problem-solving. Organised in teams, educators take collective responsibility for solving the complex problems of teaching and learning and improving student outcomes. Teams share knowledge, expertise and experience in order to deepen learning and to foster a mutual understanding of effective classroom practice. Teams create the conditions for collegial reflection and support and help to spread workloads more evenly.

Constructive, objective and actionable feedback on teacher practice is important for targeting areas where a teacher needs to improve his or her performance and for the purpose of designing professional learning opportunities that address areas for improvement.

Competent, experienced teachers, school leaders or an expert sourced from outside the school can also provide teachers with feedback on their professional learning. For example, feedback from a trusted peer on the operation of a professional learning team or a coaching or mentoring partnership is useful to gauge the effectiveness of such strategies.

Principle 5: Professional learning is evidence based and data driven (not anecdotal) to guide improvement and to measure impact

Data from different sources can be used to determine the content of teachers' professional learning and to design and monitor the impact of professional learning programs.

Evidence, rather than anecdotes, needs to be collected regularly at the student, teacher and school level to help focus teacher learning. Student journals, for example, can be analysed to identify areas where students are struggling or how students are progressing from one month to another.

Data can be used to measure and improve the impact of professional learning. Formative evaluations allow teachers to make mid-program refinements and corrections, while summative evaluations measure the effectiveness of professional learning activities and their impact on teacher practice, knowledge and student learning.

Principle 6: Professional learning is ongoing, supported and fully integrated into the culture and operations of the system – schools, networks, regions and the centre (not episodic and fragmented)

Professional learning needs to be ongoing, long term and sustained. Significant and long-term change in teacher practice does not occur in a matter of weeks but more often over months or years. Learning by doing, reflecting and refining is a long, multistage process.

Teachers need support for their professional learning. Solving complex problems and implementing innovative practices may require outside expertise and additional resources. Encouragement and recognition is also crucial to maintaining effort since finding new ways to do things is difficult and often painful. Sustained, immediate and quality support is essential to ensure improvement in schools and classrooms, particularly when unexpected problems arise.

Supported, ongoing professional learning must be embedded in the system. Central and regional staff have a responsibility to model good practice by participating in ongoing professional learning.

Principle 7: Professional learning is an individual and collective responsibility at all levels of the system (not just the school level) and it is not optional

Professional learning should occur at all levels of the system. It is an individual and collective responsibility encompassing schools, regions and the centre. For teachers and school leaders, professional learning needs to be linked to schools' performance goals. These goals in turn need to reflect the needs and aims of the regions and the centre. Professional learning is inextricably linked to enhancing the capacity of the system as a whole.

Central and regional offices and key stakeholder groups should work collaboratively to determine strategies for improvement and share best professional learning practices to drive school and system-wide improvement.

Appendix B: Effective schools activity

The following activity can be used to facilitate conversations about school effectiveness.

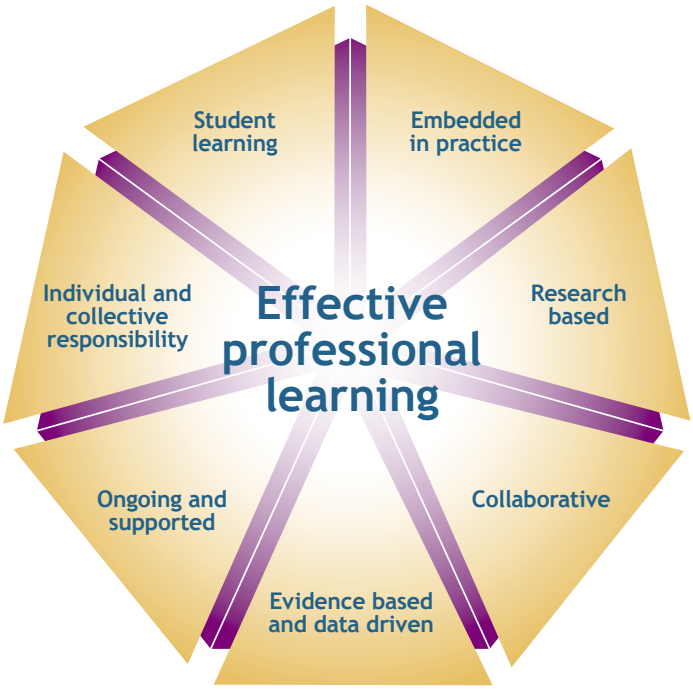
Select a factor. Is it an important characteristic of an effective school?

How would this factor be demonstrated in practice?

What evidence have you seen of this in your school?

What practices need to be further developed or targeted for action?

Appendix C: Effective professional learning activity



The following activity can be used to facilitate conversations about effective professional learning.

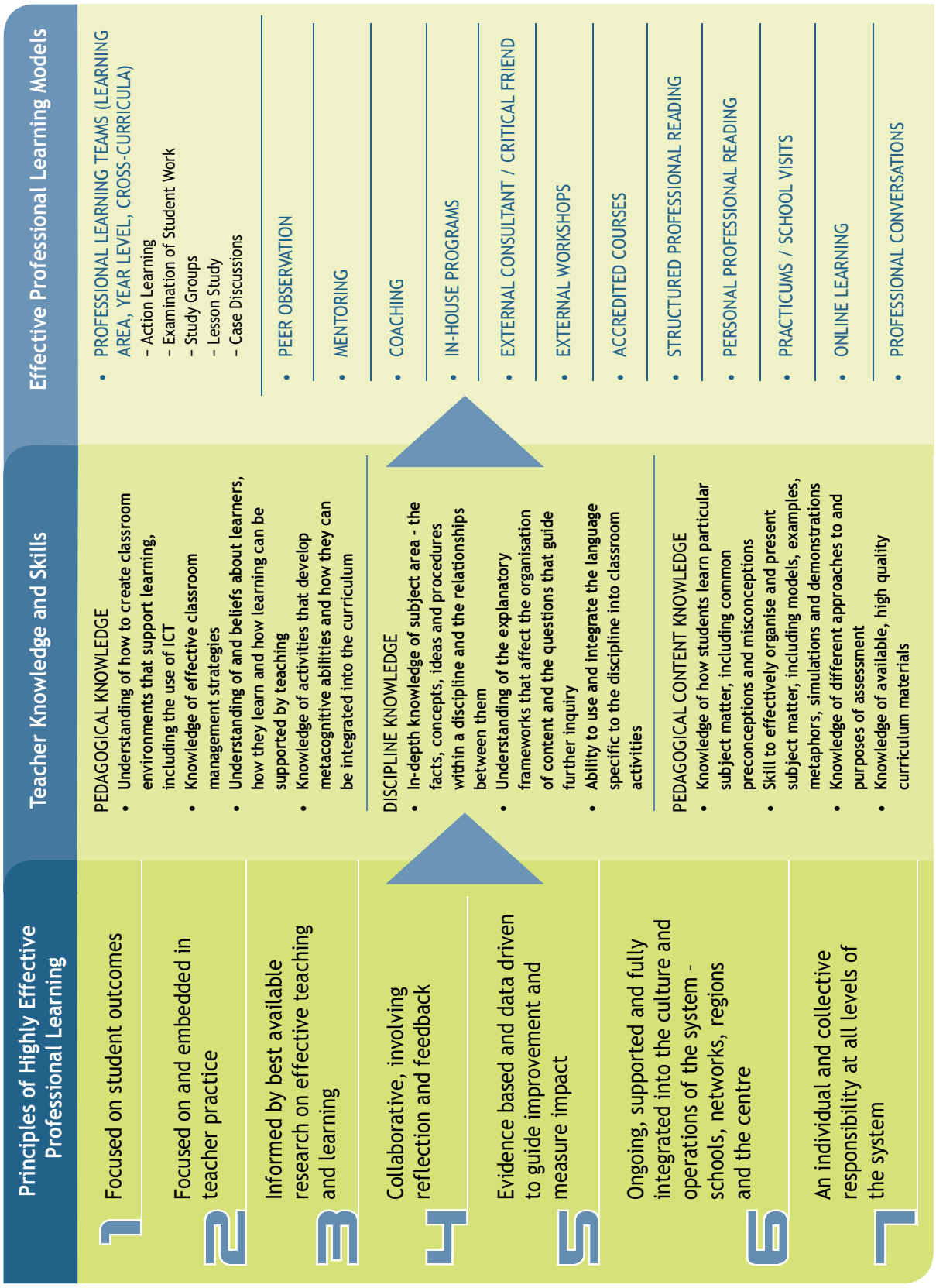
Select a principle. Is it an important characteristic of effective professional learning?

How would this principle be demonstrated in practice?

What evidence have you seen of this in your school?

What practices need to be further developed or targeted for action?

Appendix D: Effective professional learning



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