



ACT Department of Education and Training

***Teachers and school leaders: making a difference
through evidence-based practice***



Australian Capital Territory
EDUCATION AND TRAINING

A discussion paper for ACT Government schools

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Introduction

This discussion paper is one of a series to promote discussion and debate in schools and school communities. It follows papers on *The inclusivity challenge: within reach of us all (2002)* and *Teachers: the key to student success (2004)*.

The paper supports the Schools Excellence Initiative and the School Improvement Framework, promoting professional learning communities and professional pathways. It is intended to help teachers and school leaders use data and research more effectively to improve student learning and advance the strategic priorities of schools.

Department surveys of teachers indicate that many teachers, particularly those in secondary schools, do not consider they use system testing or monitoring to inform their teaching practice.

This discussion paper draws on international and national research about evidence-based practice. A supporting paper *Teachers and school leaders: making a difference through evidence-based practice - research paper*, which synthesises recent research has also been published and is available from <http://www.det.act.gov.au/publicat/publicat.htm>.

Research evidence indicates that evidence-based practice leads to improved student learning, improved professional practice and improved whole school effectiveness. Evidence-based practice also facilitates accountability to parents, the school community and government.

Evidence-based practice is focussed both within the classroom and across the whole school. The first focus is directly on the teaching and learning process. Here the key evidence-based practitioner is the teacher. The second focus is on the whole school community, leadership and management, the student environment and wider community involvement. Here, the key evidence-based practitioners are the principal and other school leaders.

This paper provides a framework for considering the importance of evidence-based practice and its practical implementation. Through a series of questions for discussion and reflection and some scenarios drawn from classrooms and schools, it is intended to promote professional dialogue and support good practice.

What is evidence-based practice?

Evidence based practice in education operates at two levels. The first is to utilise evidence from world wide research and literature on education; the second is to establish sound evidence, by systematically collecting information about particular phenomena. A school which wishes to use evidence in order to improve practice needs to do both.

(Davies in Groundwater-Smith 2000)

Evidence-based practice is the collection and analysis of data and research and the application of this evidence to teaching and learning and to school effectiveness.

There is a rich tradition in education of action inquiry and practitioner research. The use of quantitative and qualitative data can deepen this tradition, building on what is known about effective schools and about good teaching and assessment practices.

In discussing evidence-based practice, the following definitions may be helpful:

- data: a collection of facts from which conclusions may be drawn and judgements made
- research: a thorough inquiry and investigation into a subject, including the collection and application of data
- information: the result of processing, manipulating and organising data
- knowledge: information that is shaped, comprehended and embedded in meaningful contexts
- practice: the application of knowledge to effect change in teaching and learning and school leadership.

Evidence-based practice should not be driven solely by external demands, but by a commitment to improvement within the school. The prime purpose and professional responsibility of teachers and school leaders is to progress student learning. Data and research help them to carry out this responsibility in an informed, purposeful and systematic way.

Questions for discussion and reflection

- What are the strategic teaching and learning priorities for your school?
- How are research and data (quantitative and qualitative) currently used in your school? In your classes?
- How can evidence-based practice help you? Your students? Your school?

Why is evidence-based practice important?

Using data does not have to be a mechanical or technical process that denigrates educators' intuition, teaching philosophy and personal experience. In fact, using data wisely is a human thinking activity that draws on personal views but also on capturing and organising ideas in some systematic way, turning the information into meaningful actions and making the interpretation public and transparent.

(Senge, referenced in Earl 2005)

Evidence provides a strong foundation for decision-making in the classroom and across the school. Educators who encourage students to become informed, critical thinkers need to be informed, critical thinkers themselves. Evidence-based practice strengthens the school as a professional learning community that does not lose sight of its key purpose – improving student learning.

Teachers and school leaders have always been accountable – in the sense of having a professional and moral responsibility to be open and fair in dealings with students and parents and carers. There is now an increased expectation that schools in Australia and internationally, provide evidence of student outcomes and of school effectiveness to system-level agencies and to the public through elected governments. The evidence of outcomes is closely linked to greater specification of what students are expected to know and be able to do and what standards they are expected to achieve.

There is an important difference between 'accounting' (simply gathering and reporting information) and 'accountability'. The School Improvement Framework describes accountability as "the acceptance of responsibility for the achievement of outcomes and the taking of appropriate action to improve performance" (p. 15). This is student-centred accountability.

Schools operate in a data-rich environment. The 21st century sees teachers and schools with access to information and information management tools undreamt of in previous decades. The ready availability of data and educational research gives teachers and school leaders both dilemmas and opportunities. Some commentators would argue that there is too much evidence available to schools. The key issue is how to use evidence methodically, strategically and productively.

Questions for discussion and reflection

- What is your understanding of accountability? At the classroom level, the school level, the system level?
- For what are you accountable and to whom?

Beliefs about evidence-based practice

School-wide improvement, founded upon carefully collected, analysed and debated evidence is both challenging and uncomfortable.

(Groundwater-Smith 2000)

Research shows the importance of addressing affective factors - the feelings that school leaders and teachers have about evidence-based practice and the use of data. Researchers identify a number of concerns that teachers, principals and school communities have about evidence-based practice. These concerns need to be taken seriously. Researchers also report positive responses when evidence-based practice is undertaken and improved student learning results.

Concerns

- *If I provide this data, the system or the media will use it to paint our school in a bad light. We all know that statistics can be manipulated to suit people's purposes.*
- *If I agree to this collection of data about my teaching and the teaching of others in the school, I'm scared that I'm going to be exposed as a failure.*
- *The important things in teaching and learning can't be measured by numbers.*
- *I don't have the time for this!*
- *Here's 'big brother' again! Why can't I be left alone to get on with my teaching?*
- *It's no good simply accessing research. All research is contestable. We need to be able to find different perspectives on this issue and debate the pros and cons.*
- *How do I know that the confidentiality of data will be respected?*

Positive responses

- *I've always had faith in teacher judgement and teacher intuition. I still do! But I know now that good data makes those judgements better.*
- *I thought all this was going to be 'high tech'. But evidence-based practice in our school has been implemented through simple tools I can use and understand. I have a much better picture of my students' strengths and weaknesses now.*
- *I didn't have data literacy skills when our school committed to using data more effectively. But the principal made sure that a team of skilled teachers was able to help us and bring us all up to speed.*
- *I was worried that I wouldn't be able to access the research I needed – there's so much around! But our librarian and other teachers (some pursuing extra study) took the lead and supported the development of a sound research base for our school priority areas.*

Questions for discussion and reflection

- How would you - either as a teacher or as a school leader - address the sorts of concerns expressed here? Are there other concerns in your school about the use of evidence-based practice? How can you deal with these concerns?
- What examples do you have of the successful use of evidence-based practice to improve student learning? What can you learn from these examples?

Principles and key processes in evidence-based practice

The research literature supports the development of principles for the use of evidence by teachers and school leaders. Such principles would include:

- relevance to student learning outcomes: the evidence is useful and can be used to inform teaching practice and program delivery
- values-based: collection, analysis and application of evidence is undertaken within a frame of values shared by the school community
- validity, reliability, rigour and depth: the evidence obtained is accurate, answers the questions that it purports to answer, is gathered from a range of sources and can be compared with other data collected at a different time
- skilled interpretation: teachers and leaders have (or develop) the skills to analyse data effectively
- timeliness: the evidence is available when it is needed and the data that is used is current
- cost-effectiveness: the models and time allocation for collection, analysis, application and evaluation of information are affordable and manageable
- constructive debate: the school community openly shares and debates the evidence
- confidentiality and ownership: these are respected appropriately in using data
- strategic decision-making: evidence is linked to informed, significant decisions about classroom teaching and school programs and subsequent action
- continuous improvement: the evidence-based process is maintained over time, with each stage informing the other in a developmental cycle.

An iterative process for the use of evidence operates at both the classroom and whole school level as shown in the table below.

What do we know?	Identification and planning
What do we do?	Systematic observations and collection of relevant evidence
What do we know now?	Synthesis and analysis of evidence
What do we do now?	Decisions about actions, interventions and changed practices
What do we know now?	Evaluation: what has worked well and what has not worked
What do we do now?	A commitment to replicating effective practices

Focus on outcomes

A student learning outcomes focus, within the framework of an explicit and comprehensive school based curriculum that is subject to review and improvement within a framework of targets, will be required if quality data is to be collected over time and aggregated.

(Bywaters 2006)

The 2006 report on the external validation process for ACT government schools noted the ready availability of inputs for the review and external validation process, but commented on the need for schools to give greater emphasis to outcomes.

The report also commented on the need for teachers and schools to establish data management processes that would enable outcomes data to be collected, analysed and applied. Such processes would help students improve their learning, teachers improve their teaching and schools improve their overall effectiveness.

The following sections focus on outcomes for two groups of school professionals. For teachers, the focus is on student learning, student achievement and teachers' own practice. For school leaders, the focus is on strategic planning, awareness of client needs and the promotion of a professional, evidence-based culture.

The discussion and questions are designed to support improved student learning outcomes, to enhance teacher practice and to help leaders embed quality assurance and school effectiveness measurement into their schools.

Student-centred and purposeful teachers

Collecting data without purpose is meaningless. Evidence should be reviewed, talked about with colleagues, new things will be tried out and evaluated.

(Thomas & Pring 2004)

Teachers who use evidence effectively to make judgements about the quality and future directions of student learning understand their students and the purposes of their teaching. They ask the following questions.

At the beginning of the year or unit of work

- What are my key goals? How do my priorities sit with the strategic priorities of the school?
- What do I know about my students – their abilities, their interests, their enthusiasms, their concerns?
- How can I know more about my students? What evidence can help me understand their prior learning?
- What are the benchmarks against which I will measure my students' progress?

During and at the end of the year

- What is working well? When did I 'connect' to students in ways that were powerful and led to changes in learning? How do I know?
- What worked for some students and not for others? What worked best for particular students (or groups of students)?
- What external factors have had an impact on the learning of my students? (eg curriculum structures, changes of staff, life experiences)
- What am I doing differently from six months ago? How are my changed practices affecting student motivation and achievement?

Questions for discussion and reflection

- What sorts of evidence is available to you? What evidence should you collect?
- What is your focus for improving your practice?
- How can you make evidence-based practice routine?
- Which students benefit most from your consistent use of evidence?

Rigorous and fair teachers

Assessment should not be a covert mission, but rather a process defined by the importance of transparency and information sharing which is directed by positioning the needs of students as paramount.

(Bruniges 2005)

Evidence-based teachers are rigorous and fair in their assessments of student learning. They use an array of assessment tools to gauge student progress. They ask the following questions.

At the beginning of the year or unit of work

- What is assessment for: diagnostic evidence of students' strengths and weaknesses, and students' prior learning; formative evidence of students' progress and facilitating feedback to them; and summative evidence of students' outcomes at the end of a series of lessons or a unit of work?
- Am I responsible for assessing and reporting student achievement in comparison to defined standards? In comparison to other students? In comparison to previous achievement by the same students/student groups? All of these? How will I carry out these responsibilities fairly?
- Which tasks am I going to use to assess students' progress? What other sorts of data can I use that will provide evidence of learning (eg student surveys, interviews or self-assessment)? Will my students participate in system-wide or international tests? How will I use these results to tell me more about what my students know and can do?
- How do I ensure that my students understand the different purposes of assessment? How do I make explicit the standards and criteria for my judgement of their work and their progress?

During and at the end of the year or unit of work

- Are my students learning? How do I know? What is an examination of their work telling me? (What knowledge or skills did they master? What should be the focus for improvement? What should be the focus for enrichment?)
- What is the distribution of student achievement? (Who met the standards? Who achieved very highly? Who achieved very poorly?)
- How did sub-groups of students perform (eg by gender, language background)?
- What should I do next? How might I do things differently?

Questions for discussion and reflection

- How can you learn more about effective assessment practice?
- How do you reach shared understandings of achievement standards with colleagues?
- What tools will help you document students' progress?
- What evidence is most useful in progressing the learning of struggling students?

Professional and accountable teachers

One of the powerful ideas in evidence-based models of teaching and learning is that teachers need to move away from considering achievement data as saying something about the student, and start considering achievement data as saying something about their teaching.

(Hattie 2005)

Evidence-based teachers use research and data to improve their own practice. They accept the need to be accountable for the progress of their students. They ask the following sorts of questions.

At the beginning of the year or unit

- What areas of my practice do I particularly want to improve? Where can I find reliable research to help me in my professional growth?
- What did I learn about my strengths and weaknesses last year? What did the progress of my students teach me about my practice?
- What tools will I use to collect evidence of student learning this year, to help me improve my effectiveness?
- To whom am I accountable for reporting the progress of my students? How can I make sure that I do this in the most professional and informative way possible?

During and at the end of the year

- When I reflect on my practice, what sorts of evidence did I find most effective and efficient? How can I make these practices routine?
- How is what I am doing similar to or different from the practice of my colleagues? How is sharing my classroom observations with other teachers strengthening the understanding of my own practice?
- What are my next steps?

Questions for discussion and reflection

- What insights has the use of data provided into the effectiveness of your teaching?
- What do you plan to do with the knowledge you have gained?
- How can you be more systematic and methodical in recording important data about student learning?

Targeted and strategic leaders

... simply collecting data, however systematically and routinely, will not of itself improve schools. There needs to be a commitment to scrutinise such data, to make sense of it, and to plan and act differently as a result.

(Hopkins 2001)

School leaders who use evidence effectively gather, interpret and apply information on the effectiveness of their schools, using organisers such as the domains and elements of the School Improvement Framework.

Such leaders use research and data strategically. They identify issues, plan how they will address these issues in a targeted and systematic way, collect and analyse the evidence and apply knowledge in strategic decision-making. Evidence-based leaders ask the following sorts of questions.

- What are the goals and priorities of the school? What are our shared beliefs and values?
- What does our baseline data tell us about the four domains of schooling:
 - teaching and learning
 - student environment
 - leadership and management
 - community involvement?

What key issues do we need to address?

- What further evidence do we need? How will we go about collecting relevant research and data (within particular classrooms, across the school, from research, from system data)? Who will be involved? What is our timeline?
- How will we develop staff skills in collecting and analysing data? Will we need new software for the storage, retrieval and analysis of data? What costs will there be?
- How will we ensure that the evidence is accurate, relevant and valid (answering the questions that it purports to answer)? How will we structure and interpret the results?
- How will we monitor change? What benchmarks will we use to measure progress? How will we document the change process?
- How will we disseminate the outcomes of our investigations?
- What decisions will we take now?
- How do we engage in a continuous improvement process?

Questions for discussion and reflection

- What key area(s) would you choose for improvement in your school?
- What approaches to evidence-based practice would work best in your school?
- Where do you foresee barriers or difficulties? How would you plan to overcome them?

Informed and aware leaders

Let's try it, test it, reflect on it, and refine it. We need to make this work for our students and we need to recognise that this is a school, not a factory.

(Reeves 2004)

Evidence-based leaders have a strong awareness of the external environment and a high sensitivity to the needs of key client groups. They are also aware that the development of an evidence-based culture is an iterative process that recognises the complex organisation of the school and respects learning by doing, which inevitably involves some trial and error. Such leaders ask the following questions.

- What are the characteristics of our student population? How is information about students stored and shared? Who owns the information? What about confidentiality issues?
- Which students are engaged and progressing in their learning? Which are not? Are students happy at school? Are their parents and carers satisfied with the education being provided to their sons and daughters?
- What do members of the school and wider community think about the school?
- What is our staff profile? Do people enjoy working here? If not, do we know why?
- How well do we know the strengths of our staff? What measures of teacher effectiveness are used in the school? Are they working?
- What are the characteristics of our school community? How do we know? How could we improve our knowledge of the community and community issues?
- How do system priorities relate to issues identified in our school and school community? How can we use system resources most effectively?
- What communication channels do we have with staff, students, parents and the wider community? What are we learning through this communication?

Questions for discussion and reflection

- Which key client group do you know least about? How will you find out more?
- How are measures of teacher effectiveness working? How can they be monitored and improved?
- What strategies might gain 'buy-in' from staff and school community to an evidence-based practice model of teaching and school improvement?

Collegial and reflective leaders

The unique and specialised knowledge, skills, experience and professional capacity of teachers must be valued as fundamental components of any evidence process. That is, the way in which evidence is obtained, collated, interpreted and results strategically utilised, must be interlinked with, and influenced by, the profession.

(Bruniges 2005)

Embedding evidence-based principles and practice in the culture of schools is a gradual process, an educational journey towards greater effectiveness and greater accountability. Evidence-based leaders ask the following questions.

- How do we strengthen shared values across the school and promote trust across all stakeholder groups?
- What priority does professional learning have in our school? How is this learning linked to our strategic plans and progress towards evidence-based practice?
- How do we foster action research and data literacy among our staff?
- How do we encourage innovation and exploration, treating mistakes as opportunities for learning?
- How do we best draw on the expertise of our staff to develop and strengthen evidence-based practice?
- How are staff encouraged to debate issues and challenge evidence?
- How do we communicate, share and celebrate progress towards achieving our goals? How do we agree on areas where we still need to improve?
- How might we do things differently next year?

Questions for discussion and reflection

- How do you promote a culture of open inquiry, reflection, collegiality and constructive debate in your school?
- Where is your school along the road towards effective evidence-based practice?
- What information provides the best insights into the progress of your journey?

The knowledge building school

School improvement requires an organizational culture where the judicious use of evidence habitually drives the day-to-day practice of teachers and administrators, and the collective decision-making of faculty or community groups.

(Jamentz 2001)

Knowledge is information that is shaped and understood. Members of a school community – its leaders, teachers, students and wider community – all contribute to the knowledge built by a school. However, all too often knowledge remains locked up in individuals' heads and in individual classrooms or staff rooms.

The amount of data available to schools can also be overwhelming. Evidence-based practice means finding the processes that work for a particular school community. Most researchers suggest that a logical first step in using data is to begin making better use of existing data.

To build and apply knowledge effectively schools need not only the commitment of school leaders and teachers but also good data management systems. Decisions need to be made and agreed by staff about:

- what data should be routinely collected within the school (and why, and by whom)
- what data comes to the school from outside sources
- how that data should be stored so that it is readily available to those who need it for decision making at the individual student, class and school level
- who is responsible for maintaining the currency and accuracy of data storage systems.

Such systems should take advantage of information technologies available, but simple, well-established practices (such as individual student folders, with work samples, or colour-coded files), should not be abandoned. What is possible and practicable for a particular school community should be the starting point. Knowledge, and the deployment of more sophisticated tools, will build from there.

The strength of a knowledge building school is that it has a strategic and organised approach to the creation, dissemination and application of knowledge. The school's core business – progressing the learning of all students – is supported by clearly defined goals and identified areas for improvement.

Questions for discussion and reflection

- What data do you currently have in your school? Who is responsible for storing that data? Is it readily available to those who need it?
- How can you improve your own and your school's strategies to support the effective collection, storage and retrieval of relevant data?
- What will be your key steps in building a stronger knowledge base in your school?

Scenarios

Tell me and I'll forget, show me and I may remember, involve me and I'll understand.

(Old Chinese proverb)

The following scenarios have been developed to provide examples of evidence-based practice in addressing the needs of:

- an individual student
- a group of students
- the school as a whole.

While the scenarios have been developed drawing on the experience of teachers and school leaders, they do not represent actual events or refer to any specific school or specific students.

Suggestions for using the scenarios

The following approaches may be useful in furthering your reflection and professional learning about evidence-based practice:

- Analyse the scenario, commenting on the approaches taken by the teachers/schools.
- Document a scenario from your own experience, where evidence-based practice has been effective.
- Develop a new scenario, relevant to the needs and priorities of your school / students. This could then be refined to support strategic action.

Scenario One

The situation

A year 4 student with a disability, in a regular primary school, began to present challenging, disruptive behaviours, including banging his head, tearing up work sheets and running out of class. The principal called a meeting of the special needs team where it was decided to apply Functional Behavioural Assessment (FBA) principles. FBA is an example of an approach to evidenced-based practice. Interventions are based on addressing the reasons for student behaviour rather than simply focussing on eliminating the behaviours.

Collecting the evidence

Firstly the principal had a detailed discussion with the student's mother about school and home behaviour. Secondly, the class teacher talked with the student, the student management consultant, the support teacher/inclusion, and other staff about possible reasons for the behaviour. Thirdly, the school counsellor reviewed all records and documents about the student.

From the evidence it was clear that the identified behaviours were new. The group decided they needed more information and decided to conduct classroom observations. A series of brief observations over the course of a week by the counsellor, deputy principal and the special teacher's assistant indicated that the student employed the range of behaviours to avoid class work, particularly in mathematics. It was also observed that when the class teacher came close to the student the behaviours ceased.

Examining the evidence

The group was then ready to make a hypothesis that the student was experiencing new difficulties in maths, an area of previous strength, and the behaviours were designed to avoid failure. The impact of his disability was to reduce his capacity to complete language-based maths problems introduced at this year level.

Action strategies

Four intervention strategies were employed:

- The student's work would be scaffolded and the teacher would attend closely to the student at task-start, mid-task and end of task during maths. Mathematical tasks would be structured to ensure success for the first two-thirds of the set work, with a small challenge added at the end.
- Class discussions would be highly structured and scripted to enable confident input. For example, rather than open-responses, a range of choices would be available.
- The student would be reported missing when he left the room. The principal would phone the mother after ten minutes so she could follow this up with the student at home.
- Teaching and learning goals on the Individual Learning Plan (ILP) would be reviewed and modified in order to provide success.

Evaluation

A simple data table was used to record examples of the identified behaviours and a mark recorded each time an identified behaviour occurred. One week after the range of interventions was introduced the student had left the classroom twice. He did not leave the classroom again for the whole year. Head banging ceased, and although the student continued to avoid maths tasks, occasions of tearing up worksheets reduced significantly over the ensuing three weeks. The student's Individual Learning Plan was amended to include further differentiation of curricula.

In deciding on the storage of data for future reference, the teacher (and the school) had two choices: confidential (storage in the counsellor files) and non-confidential (storage on the student file). In this case, the confidential option was preferred and the observation sheet was stored in the counsellor files.

In addition, the school decided that a database of examples of student management and evidence-based solutions would be useful. A small team agreed to develop such a database in which approaches to student management issues could be documented in a way that did not identify individual students.

For further consideration

How might this scenario be applied to other situations involving individual students at your school?

Possible examples include:

- a student who was progressing well has reached a plateau
- a student is harassing others
- a student is disengaged from classroom learning
- a student's attendance has become irregular.

Scenario Two

The situation

A high school had three priorities: improving literacy and numeracy outcomes for all students; promoting teaching strategies to support individual learning needs and increasing the school's focus on the progress of its forty Indigenous students.

Collecting the evidence

A small team was established to focus on Indigenous students' needs and achievement. The team collected information through:

- school-based assessments and reports
- a survey of all teachers developed with advice from the Department's Indigenous Policy and Organisational Practice Section
- Australian Capital Territory Assessment Program (ACTAP) results, particularly:
 - scattergrams (showing spread of students' results, enabling identification of students needing extra support)
 - strand by Item Descriptor Reports (showing group strengths and weaknesses in relation to skills in sub-strands of Profiles)
 - item Map (indicating individual student skills in each strand)
- the Indigenous home/school liaison officers.

Examining the evidence

An examination of the evidence provided useful information about the current levels of achievement of Indigenous students and identified a number of students who needed more support in literacy and numeracy. However, the team knew that the previous interventions for some of these students had not worked. The teacher survey and discussions with the Indigenous liaison officers suggested a number of other factors were affecting student learning. These factors included cultural issues, home/school relationships, and general student disengagement from the learning process. The team agreed there was a need to take a broader approach.

Action strategies

With the support of the Indigenous Policy and Organisational Practice Section and the Indigenous home/school liaison officers, six broad strategies were adopted:

- joining the *Dare to Lead Coalition*, a group of principals and schools across Australia committed to making a difference to the education and lives of Indigenous students

- developing Individual Learning Plans (ILPs) for all Indigenous students and involving the students (through interviews and mentoring) in goal setting and self-assessment
- building partnerships with parents, carers and members of the Indigenous community to support stronger home/school links and the participation of Indigenous people in school decision-making and program development
- developing culturally inclusive curriculum, through locating examples that have worked in other settings, supported by research and the resources of *Dare to Lead*
- accessing professional learning for teachers, including attendance at relevant courses at the Centre for Teaching and Learning, relevant research papers and issuing invitations to recommended speakers
- strengthening links with feeder primary schools and the local college to support transition.

Evaluation

The team responsible for the project recognised that complex factors were at work and that change would take time. They established an iterative evaluation process involving:

- monitoring student ILPs and Student Pathway Plans
- school assessments
- student attendance
- patterns of student behaviour
- student referrals within and beyond the school
- levels of participation in the school by parents, carers and Indigenous community members
- annual teacher and student surveys.

At the end of each year of the project, the team collated the results of these processes and compared what they had found to the ACTAP literacy and numeracy results of Indigenous students, focussing particularly on the value-added graphs to map progress of individual students from Year 7 to Year 9.

After two years, the school recorded improvements in literacy and numeracy for most Indigenous students and a significant improvement in students' engagement in learning and in the school community.

For further consideration

How might this scenario be applied to other situations involving individual students at your school?

Possible examples include:

- students from non-English speaking backgrounds
- adolescent boys
- gifted and talented students
- students with a background of high mobility.

Scenario Three

The situation

A school in its first year of school review found that only 53 percent of staff responded positively to the survey question “I get constructive feedback on my work”. The school executive considered what the school might do so that all members of staff received the constructive critical feedback they felt they needed to improve their work.

Collecting the evidence

The executive decided to closely examine the Professional Pathways process in the school. Firstly, they engaged professional help to design additional surveys for both staff and supervisors with questions about the Professional Pathways process in the preceding year (professional relationship to the supervisor, meeting timetables, length of meetings, content and value of timetabled meetings, and the quantity and quality of informal feedback). Secondly, they asked a critical friend of the school to participate in some staff small group meetings and interviews. Thirdly, they examined the Professional Pathways timetable and records for the current and previous two years.

Examining the evidence

Through the additional evidence, a number of issues emerged. These included:

- some teachers missed their first priority-setting meeting and this was not followed up
- some meetings were postponed a number of times
- staff that joined the school during the year did not participate in the Pathways program
- some supervisors had a weak understanding of their role and responsibilities
- some teachers on higher duties did not have the knowledge or skills to undertake supervision
- there were wide variations in the way Professional Pathways were constructed, including issues of breadth and achievable goals
- there were variations in understanding what ‘feedback’ meant and variations in the quality of formal feedback provided
- there were examples of meetings that provided appreciation, but no constructive, critical feedback
- some supervisors did not have close professional links to members of their group or were physically located at a distance from them
- there was often a poor understanding of the relationship between the formal Pathways process and ongoing collegial supervision and support.

Action strategies

Four improvement strategies were established:

- The executive made commitments in their Professional Pathways to learning more about the role of constructive feedback in human resource management.
- Professional Pathways were given high priority in the school calendar, with agreements about early timetabling, length of meetings, records maintenance and follow up.
- Professional development of staff was to include training for supervisors and two staff workshops on providing constructive feedback through both formal and informal mechanisms.
- An electronic system was established to be used by supervisors to record Pathways meetings held for all staff members. A senior staff member (the Deputy Principal) was responsible for monitoring the records and following up any omissions or delays.

Evaluation

At the end of the year, Professional Pathways was a highly visible program within the school. Monitoring of the electronic records system had ensured that all required meetings had been held. The professional learning for the executive and the staff had received positive responses. Planning for the next year was in train.

The area that still required further consideration was whether the quality of the feedback (both formal and informal) had improved. While anecdotal evidence indicated that it had, the executive intended to administer a further staff survey in term 2 of each year for three years and to graph the trends in staff perceptions.

For further consideration

How might this scenario be applied to other situations involving school improvement?

Possible examples include:

- strengthening particular areas of curriculum
- dealing with bullying and harassment
- giving students a greater say in their learning and in school decision making
- communication with and involvement of parents.

Conclusion

Without data, I'm just another person with an opinion.

(McGaw 2002)

Gathering evidence needs to be built into the culture of the school, not be an add-on. Knowledge building schools are not driven by external accountability, although what they do supports such accountability. Evidence is valued because it helps individual students progress, improves the achievement of particular groups of students and enables a school to move in directions the school community has determined to be important.

The effective use of data supports good decision-making in the classroom or the school as a whole. Reflective teachers and strategic leaders support a climate of continuous improvement in schools. They focus on student learning and progress. Above all, the knowledge building school remains firmly focussed on teaching and learning and on the priorities identified by the school community.

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