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ABSTRACT

Elementary school teachers know that classroom experiences do not just happen, but reflect a teaching and learning program that synthesizes a host of contemporary, and sometimes competing, concerns. To be coherent a program is something of an art form. This book elaborates some programming approaches developed by expert practitioners around Australia, shedding light on the most critical function of the teacher out of class time. Chapters in the book are: (1) "Starting Points" (Jenni Connor); (2) "Building Interaction: Literacy Programming in the Early Years" (Jenny Paul); (3) "Beyond Learning Areas: Literacy and the Rich-Project Curriculum" (Lee Wilde and Anne-Marie Marek); (4) "Making the Links: A Whole-School Approach to Programming" (Greg Nelson; Anna Kinnane; Barbara Barrett); (5) "Embedding Information and Communication Technologies into Literacy Programming" (Susan Wilson with Helen Nixon); (6) "Four Curricular Forms: Supporting Literacy in Middle-School Programming" (Andrew Seaton); (7) "Literacy Programming When English Is a Second Language" (Vanessa Sammut); and (8) "Practical Literacy Programming for Students with Special Learning Needs" (Lorraine Graham; Jeanette Berman; Anne Bellert). Each chapter includes references. (NKA)

PRACTICAL LITERACY PROGRAMMING

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PRIMARY ENGLISH TEACHING ASSOCIATION

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Foreword

KATH MURDOCH

The work of a teacher is most often portrayed by images of face-to-face classroom interaction. Working with students is, indeed, the most visible aspect of our profession. Increasingly, however, the complex ways in which we lead students to learning are the result of the strategic work we do behind the scenes. Quality programming is the foundation on which powerful teaching and learning is built.

Michael Fullan (1993) argues that teaching is an occupation that naturally lends itself to professional development around *purpose* and *vision* because, ultimately, that is what our work is all about. At their best, our programs reflect a strong sense of purpose that is, in part, guided by a vision of the kind of learners we hope our students will become. Good programming provides teachers with a 'big picture' map to guide practice — and it is a map those same teachers have taken an active role in creating. No prepackaged program can ever match the value of the planning done by a teacher — or team of teachers — who has a particular group of students in mind. Whilst we draw on a range of curriculum documents, guidelines, resource books, models and frameworks, the final decision about how it will all play out in the classroom must be informed by our knowledge of, and relationships with, *our* students and their community.

As is evident throughout this book, the issues with which we must grapple in our planning are increasingly complex. Where once the emphasis in program development was on planning what we should *teach*, the task now includes a clearer focus on what and how we want our students to *learn*. The shift to a more learner-focused curriculum has brought some profound changes to the kinds of questions we ask when we plan learning experiences. It is not enough to consider the content or 'product' that we might have students work towards; programming must also take into account the processes and strategies that might lead students to learning most effectively. We must craft an intricate fabric, weaving a diversity of threads together to create a connected,

sensible vision that caters for the needs of individuals. The kinds of questions that now guide our planning include:

- What are the 'big ideas' that underpin this unit/lesson/sequence?
- What relevance do these ideas have for this particular group of students?
- How will we know what experience, knowledge and skill students bring to this topic/focus?
- How will we ensure that the interests, needs and concerns of our students are explicitly incorporated into our teaching?
- How will we negotiate learning pathways?
- How can we scaffold the learning and enable students to build understanding for themselves?
- What literacies are required to access and process the 'big ideas' central to this unit/lesson?
- What literacies are required to communicate these ideas to others?
- How will these literacies be made explicit?
- What texts will our students access and/or generate?
- How will these texts be examined and critiqued along the way?
- How might students demonstrate what they think, feel and understand?
- What generic skills and qualities for learning are we building through this unit or lesson?
- What strategies can we use to engage students and lead them to understanding?
- How can we ensure students see the connections between this learning and the learning they may do elsewhere?

It is this final question that is increasingly important in our planning for literacy. Taking time to 'plan for connectedness' develops critical links between literacy and coming to understand the way the world works. We cannot effectively plan for literacy in isolation; we bring meaning and context to students' learning by consciously embedding literacy experiences across the curriculum. In short, our programs must consider what our students are listening *to* and reading, writing and speaking *about*, and how this connection can form a context for developing power over language.

On the surface, detailed planning can seem like an anathema to the learner-centred classroom. Some argue that overplanning has the effect of blocking our sensitivity to the 'teachable moments' that occur each day in our classroom. Yet, paradoxically, it is often within the most carefully planned programs that the most powerful, spontaneous, 'just-in-time' teaching takes place. Good planning provides us with a map and, most importantly, with our ultimate destination. When we are clear about our purposes, we can more confidently and strategically work with the unexpected and unplanned moments without losing our way. Ideally, our programming *deliberately* builds in space and opportunity for the students to direct their learning. Project- and problem-based approaches, inquiry and negotiated contracts typify this notion. When we can work with

our students in ways that are openly responsive to their interests and concerns and that lead them to the ideas, skills and values embedded in our visions for their learning, we develop a collective sense of purpose that makes learning communities thrive.

Good planning is not a week-by-week or day-by-day affair. If our students are to achieve deep understanding and mastery of skills and processes, we need to consider longer time frames in which we 'do less better'. For many years we have struggled to fit everything into a weekly timetable, often ending up with a piecemeal program that provides little opportunity for students to reflect or make those essential connections between experiences. As the teaching and learning landscapes change, more teachers see the plans they make as long-term. Quality planning creates conceptually rich sequences of experiences for students that may take many weeks to implement.

This kind of planning needs more sustained time in itself. Many schools are now recognising the value of organising opportunities for teachers to plan together for extended periods. This is important, as it helps conversations move beyond the brainstorming of good ideas towards more substantial dialogue about purpose. Observing or participating in an in-depth team planning session can be an exhilarating experience. Creating shared visions and innovative 'maps' to guide teaching can be highly motivating for teachers, assuring them that they know where they are going and that others are sharing the journey.

Indeed, the process of planning is a powerful and authentic context for professional development. When it is collaborative, we have enormous opportunities to learn from our colleagues and to clarify our own thinking and understanding. Informed conversations held around the planning table can help generate and sustain a shared language and vision for curriculum, teaching and learning. The ideas for programming contained in this book offer rich starting points for continuing this important conversation in our schools.

References and sources

Fullan, M (1993) *Change Forces: Probing the Depths of Educational Reform.* The Falmer Press, London.

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Starting points

JENNI CONNOR looks at the new realities and emerging trends that are driving teachers' programming choices.

Whenever we sit down to program classroom learning experiences, we operate within a set of frameworks. Some of these frameworks are quite evident, such as those provided in our systems' curriculum documents. Others operate more implicitly, such as prevailing notions about children and schooling. All of these frameworks are open to change. This chapter will look at the ways in which the challenges of contemporary society are reshaping views of curriculum and offering new starting points for educators.

The need for reform

Across the world in recent times, there has been a search for a curriculum that will engage all students in successful learning and prepare them for a fast-changing living and working environment.

This trend to curriculum reform is driven by considerations such as:

- the crowded curriculum
- the technological and social revolution of the late twentieth century
- concerns about unequal student learning outcomes
- a need to build connection and coherence in student learning.

The never-ending expansion of 'a school's work' has occurred as teachers have felt under pressure to take on increasingly broad roles to supplement family support for young people as they negotiate their way within a complex society that presents many

challenges to their well-being. Not only have teachers felt that they have lacked the expertise to provide this wide-ranging advice, but also that they have had insufficient time in which to do justice to these demands, while continuing to deliver a traditional curriculum. Inevitably, these demands come at a cost. In the USA, the Coalition of Essential Schools, a massive school reform study (2001), concluded that the more crowded the curriculum becomes, the shallower and more superficial the educational experience becomes.

If 'revolution' is too tired a term, there can at least be little doubt that we are in the midst of a dramatic technological transformation. The rate of change is faster than ever, and the changes are global in their reach and impact. At the same time, there has been significant change in the social structure in Australia and the rest of the industrialised world. Patterns of family living and mobility, the changing nature of work and the 'information explosion' all interact to present new challenges to education.

Most curriculum reform since the 1980s has been driven by a desire to improve student engagement with learning. There has been an increasing recognition that the current curriculum is failing to engage those students most at risk of failure. The 'competitive academic curriculum' (as defined by Connell et al., 1982) has largely continued to hold sway. And yet students have been voting with their feet. In large numbers, they have been avoiding school, attending but not participating, or attending but causing trouble. These same students are over-represented in low literacy and numeracy outcomes, low retention into higher education and later crime and suicide statistics.

Learning (particularly, but not only, in secondary schools) has lacked connection to society and the community it serves. Knowledge has become decontextualised and fragmented so that it can be delivered 'efficiently'. A subject-categorised, time- and space-bound curriculum ignores the overlap between ideas, information and skills and leaves the task of re-integration with the learner (Middleton & Hill, 1996). The major issues facing humankind cannot be so simply separated. If learning is heavily dependent on motivation, and if motivation requires the engagement of hearts as well as minds, a radical rethink is called for.

This rationale for curriculum reform is not merely rhetorical. It reflects what talented, highly professional educators around the nation and across the world are already doing as they respond to changing circumstances by devising innovative, student-responsive, inclusive and effective learning programs. But they have been struggling with a difficult kind of 'curriculum carpentry' — trying to tack good pedagogy onto outmoded content and school structures.

Small wonder, then, that there has been a move at systems level to redesign the curriculum itself to focus on what is deemed 'essential', and to redefine the purposes of schooling.

A sense of purpose

In uncertain times, and with competing demands on schools to fulfil more and more of society's functions, there has been an understandable move by Australian education systems to try to establish a clear sense of purpose. As part of its exploration into ideas about the future of schooling, Education Queensland commissioned Kaye Schofield to prepare a research paper (1999) on the purposes of education. Noting that "intelligent action is action guided by aim", she argues that we need clarity about the unique function of public education, to authenticate practical choices about curriculum, teaching and learning, assessment and organisational goals and to make accountability meaningful. She describes four different contemporary approaches to determining educational purpose:

- The UNESCO approach
- A values approach
- The National Goals for Schooling approach
- A futures scenario approach.

The influence of each of these approaches is apparent in new curriculum statements arising from South Australia, Queensland and Tasmania. The South Australian Curriculum, Standards and Accountability (SACSA) Framework, for example, stresses the need to take account of the demands of contemporary society and of informed predictions about the future to decide the knowledge and skills that students will need to engage productively with change (DETE SA, 2001). The Framework has an implied sense of purpose in its emphasis on the development of "thoughtful, active, responsive and committed local, national and global citizens" (ibid.).

The Queensland New Basics are described as "futures-oriented categories for organising curriculum ... a way of managing the enormous increase in information ... clusters of essential practices that students will need if they are to flourish in new times" (Education Queensland, 2002). The ideals of social justice, democratic participation, stewardship for the earth and lifelong learning are embedded in the New Basics curriculum organisers.

Tasmania's system, too, identifies the values underpinning its framework, listing connectedness, resilience, achievement, integrity, responsibility and equity as the guiding set. Through broad public consultation, Tasmania developed a set of purposes for public education. According to this set, students should be:

- learning to relate, participate and care
- learning to live full, healthy lives
- learning to create purposeful futures
- learning to act ethically
- learning to learn
- learning to think, know and understand.

These purposes closely resemble the Four Pillars of Education developed by the International Commission for Education in the Twenty-first Century (UNESCO, 1996), and reflect a shift from simple notions of 'knowledge as fact' to the deeper understandings, beliefs and dispositions that learners will need to live fulfilling lives.

Curriculum models

David Hogan has suggested that two fundamentally different curriculum designs are vying to shape contemporary curriculum:

- Disciplinarity
- Authenticity.

Each approach is underpinned by a different belief about knowledge, and about what knowledge is worthwhile.

Disciplinary curriculum

The organisation of school knowledge into subjects, or more recently learning areas, is based on the traditional academic disciplines which have existed since public education was instituted. Broadly speaking, the disciplinary curriculum has its roots in the classical humanism of Cicero and Quintilian, and the development of the *septum artes liberales* within medieval scholasticism, resulting in a distinction between two sets of studies: the *trivium* (the three language arts — rhetoric, logic or dialectic, and grammar) and the *quadrivium* (the four mathematical arts — arithmetic, geometry, astronomy and music) (Hogan, 2002).

While this binary division no longer has general acceptance, a disciplinary basis for education is still defended on the grounds that the disciplines contribute to "the development of the mind" (Hirst, 1965). The disciplines, argues Hirst, are "forms of knowledge" that each involve distinctive central concepts — for example, concepts of motion and gravity in physics, cause and effect in history, responsibility in ethics — that are arranged into patterns of relationships that can be publicly conveyed and tested against criteria of truthfulness. The disciplines also employ distinctive ways of approaching and doing things — particular techniques, skills and methodologies for generating and testing new knowledge or establishing claims to truth (ibid:128–29).

The primary value of a disciplinary approach is its ability to initiate learners into the public 'conversations' represented by the disciplines. These conversations systematically explore, describe and explain, in distinctive ways, human experience and that of the natural world (Hogan, 2002).

It has become apparent that there are a number of difficulties with a discipline-based curriculum. For a start, disciplines are not stable bodies of knowledge. Whereas it might once have been possible for a learned person to grasp most of what there was to know,

such a feat is increasingly absurd. Secondly, any concept of the transmission of an agreed collection of 'culturally valued knowledge' is challenged by the existence of an undeniably pluralist society — it begs the question of 'whose knowledge?'. And then we have considerations of equity: the prevailing curriculum has led to the stratification of school knowledge. The prestigious curriculum often appears academic, abstract and irrelevant. It privileges particular forms of knowledge and of knowing, marginalising and devaluing alternative ways of understanding and demonstrating. For those on the margins, this curriculum either denies them access or has them excluding themselves out of sheer boredom. In addition, the division of curriculum into disciplines may cause some teachers to believe that knowledge can simply be transmitted, resulting in regressive pedagogies and shallow teaching of important subject matter.

To compound a felony, much 'subject' teaching does not in fact pay due respect to its discipline base. Is all Science taught as if the learners were novice scientists, developing scientific literacy, deep understandings of scientific method, theories, laws and principles? Are students learning History or SOSE taught to be genuine critical historians? Where discipline-based teaching could connect to the real world and students' lives, does it choose to do so?

Authenticity

The second model for designing curriculum seeks to connect school experiences to the 'real world' and to help learners see the *purposes* of what they are learning by selecting content which relates to ideas and issues of significance for life and living. Authentic curriculum takes its subject matter from fundamental aspects of individual, social and political life. It has its origins in the Greek sophists of the fifth century BCE, and their commitment to basing the education of young males on the arts of rhetoric to help them prepare for the life of active citizenship in the polis (Hogan, 2002). Later, as Hogan suggests, we see a similar commitment to authentic learning in the rise of scientific education in the seventeenth century, in eighteenth-century romanticism (Rousseau), in early nineteenth-century utilitarianism (Bentham), in the progressive movement of the late nineteenth and early twentieth centuries (Dewey), in the rise of vocational education, and, more recently, in critical theory (Habermas, Giroux, Apple, Friere) and in economic rationalism. This diversity suggests that authenticity is by no means a singular curriculum principle: in some versions it links schooling directly to the capitalist workplace, in others to the democratic polis, in others to subjective existential questions. Some versions focus on engaging the interests of students, others on the contribution of education to public welfare in some form or another (Hogan, 2002).

Not surprisingly, authentic curriculum approaches, too, are not without their problems:

- Curriculum can lack intellectual structure, coherence and organisation.
- There is no guarantee of cognitive depth.
- Teaching may neglect basic skills and can become random, limiting the possibilities for conceptual connection, transfer and durability of knowledge.

Authenticity and 'essentials'

An 'essential learnings' curriculum framework is clearly based on principles of authenticity — that is, connecting the taught curriculum to life, rather than delivering the curriculum as a preparation for life. Various versions of an essentials model have emerged in recent times. For example, Vermont's (USA, 2000) Framework of Standards and Learning Opportunities sets four Vital Results — communication; reasoning and problem-solving; personal development; and civic/social responsibility — alongside three Fields of Knowledge — arts, language and literature; history and social sciences; and science, mathematics and technology — comprising seven standards in all. Similarly, the New Zealand curriculum (NZ Ministry of Education, 2000) specifies eight groupings of Essential Skills to be developed by students across the whole curriculum throughout the years of schooling. The eight groupings are: Communication, Numeracy, Information, Problem-solving, Self-management and competitive, Social and cooperative, Physical, Work and study. These skills are to be developed through essential learning areas.

South Australia describes Essential Learnings as "understandings, dispositions and capabilities which are developed through the learning areas from birth to Year 12 and beyond" (DETE SA, 2001). The essentials set of Futures, Identity, Interdependence, Thinking and Communicating are described as "personal and intellectual qualities, not bodies of knowledge" (ibid., p 13). Through the concepts and processes drawn from the learning areas, students are gradually introduced to "bodies of knowledge established by communities of scholars" (p 25).

Tasmania has adopted a similar set, with Thinking and Communicating as the means by which the content of Personal Futures, Social Responsibility and World Futures can be explored and understood. These Essential Learnings comprise the first Birth to Age 16 curriculum for Tasmanian education, and while the curriculum is not mandated for child-care settings, Children's Services professionals are engaging with the material with interest and enthusiasm.

Queensland describes its New Basics as "clusters of real-world and futures-oriented practices, and their affiliated skills and knowledge ... The practices connected to the New Basics may draw selectively upon both traditional and modern knowledge categories (e.g. disciplines, subjects, KLAs, themes, topics, issues)" (Education Queensland, 2000). The four New Basics curriculum organisers are:

- Life pathways and social futures
- Multiliteracies and communications media
- Active citizenship
- Environments and technologies.

In summary, then, a number of directions emerge from recent attempts at curriculum reform. These reconstructions:

- hope to be transformative — to develop people who can live fulfilling lives, think critically and contribute to a just society

- aim to engage all students by making curriculum focus contemporary and relevant
- assume that meaning is constructed by the learner in interaction with others
- promote interactive pedagogy and teaching for deep understanding
- employ transdisciplinary inquiry for at least part of the program structure
- propose authentic assessment and demonstrations of achievement.

Learners and understanding

In all of these examples of new curriculum approaches, the focus of a school's capacity is to be on "intellectual engagement and relevant work": fewer things are to be studied in greater depth; "less is more" (Sizer, 1992). The slogan 'less is more' highlights the desire to reduce the scope of the curriculum. It is based on the belief that 'coverage' of a vast mass of curriculum material leads to superficial understanding, limits intellectual growth and prohibits, for most students, the deep study of things that matter. The curriculum-reform agenda is not just about student engagement for its own sake. It is about involving students with higher-order thinking, real-life problem-solving and deep, lasting, transferable learning.

In a study of US schools that were deeply involved in restructuring, Newmann et al. (1995:xiv) found that "a sustained, school-wide concentration on the intellectual quality of student learning and a school-wide professional learning community among the staff were the keys to successful restructuring". The paramount goal for schooling, then, is intellectual achievement — but achievement for all, and achievement defined in relation to principles of authenticity: "worthwhile, significant and meaningful, such as those undertaken by successful adults: scientists, musicians, business entrepreneurs ..." (ibid., p 23). Newmann et al. argue that three criteria are critical to significant intellectual accomplishment:

- construction of knowledge
- disciplined inquiry
- the value of achievement beyond the school.

But haven't schools been living by these criteria since time immemorial? Perhaps not. It would seem we may have 'lost the plot' intellectually, as a result of the pressures to deal with the social realities of school life. Queensland's School Reform Longitudinal Study (Education Queensland, 2001) investigated 24 schools over three years to identify productive approaches to classroom pedagogy and assessment, features of leadership in schools and ways to enhance professional learning communities. The Study found that 20 elements of 'productive pedagogies' could be grouped into the four categories of:

- intellectual quality
- connectedness
- supportive classroom environment
- recognition of difference.

Its conclusions indicate that schools are far better at social support — nurturing, behaviour management, pastoral care — than they are at providing appropriate levels of

intellectual demand. Yet the Study found that "effective behaviour management is inherent in productive classroom practice". That is, if the curriculum is relevant, connected to life, high in intellectual challenge and respectful of student difference, then students more profitably engage with and self-regulate their learning. It is not, as teachers may be tempted to think, that you have to trade off 'control' against challenge, but that appropriate challenge *minimises the need* for external control.

So, what does 'deep knowing', 'higher-order thinking', 'intellectual engagement' mean? Harvard's five-year Teaching for Understanding Project (Gardner, Perkins & Perrone) sheds further light on this question. It represents understanding as a capability that goes beyond reproducing knowledge to using knowledge in 'unscripted' ways. Understanding involves being able to do a variety of thought-provoking things with a topic — things like explaining, finding evidence and examples, generalising, analogising and representing the topic in new ways (Blythe et al., 2002).

'Teaching for understanding', then, must address four key questions (Fig. 1.1).

Figure 1.1: Building understanding – a four-part framework*

What topics are worth understanding?	What about these topics needs to be understood?	How can we foster understanding?	How can we tell what students understand?
Generative topics These topics must be: central to a domain or discipline; related to student interests and concerns; invested with a teacher's passion and substantive understanding of subject matter; and connectable to students' previous experience. Generative topics often have a bottomless quality, in that the inquiry leads to deeper questions.	**Understanding goals** These goals state explicitly what students are expected to come to understand, or understand better. They are not narrow, behavioural objectives (such as 'Students will be able to locate sources of information'), but richly webbed core concepts, such as 'Communities change over time and are affected by people and events'.	**Performances of understanding** These activities engage students in developing and demonstrating understandings. They are varied, complex and often collaborative. They are sequenced throughout the study and offer frequent opportunities for ongoing assessment. Most importantly, they must legitimately reflect the understanding goals: a series of 'newspaper articles' interviewing local residents, for example, might be a more genuine performance of understanding about community change than a letter, an essay or locating the community on a map.	**Ongoing assessment** This needs to include: clear, public criteria tied to the goals; assessments tied to the performances; varied sources of judgement; and ways of indicating how students could do better.

* Source: Stone Wiske, M (1998) **Teaching for Understanding: Linking Research with Practice.** Jossey-Bass, San Francisco.

Organising for learning

The secret to the successful implementation of any curriculum is, obviously, effective teaching. Effective teaching addresses the need to understand the learner — for example, appreciating different world views and cultural values, and the contribution these make to student understanding. It involves acknowledging that learners from different backgrounds may be in unequal power relationships in the learning context, as well as in society (Education Queensland, 2000). Effective teaching requires the creation of understanding-focused, intelligence-friendly classrooms (Fogarty, 1998). Such classrooms take account of contemporary theories of learning and intelligence, including Gardner's multiple intelligences (1993), Goleman's notion of emotional intelligence (1996), Wolfe's brain-compatible teaching strategies (2001), and recent studies on student motivation (Walker & Kelly, 2002).

At face value, incorporating such an array of learning theory sounds overwhelming and nearly impossible. And yet, this is what effective teachers have always done — adapting their practice as new information becomes available, incorporating new understandings to enrich their repertoire of teaching strategies, planning worthwhile units of inquiry that they believe will interest students. Perhaps teaching is a bit of a tapestry: we weave new understandings into our practice as they spin through our experience. This is not dilettantism; it's the informed eclecticism of a critical, reflective professional.

And we use a range of frameworks to help us reflect and organise our thinking.

Wiggins and McTighe (1998) offer such a framework for use and adaptation. They advise 'backward mapping' from goals that are clear to teacher and students. They offer guidelines for designing instruction under the acronym WHERE (Fig. 1.2):

Figure 1.2: A framework for guiding instruction*

W	**here are we headed?** What standards, concepts and questions drive this study?
H	**ook the students.** Find engaging and provocative entry points.
E	**xplore the subject and equip the students.** Exploration should lead to in-depth, enduring understanding; equipping students requires identifying the kinds of knowledge, skills, habits of mind and attitudes that are necessary for successful final performance.
R	**ethink.** Give students multiple opportunities to rethink and reflect on key ideas.
E	**valuate.** Involve students in exhibiting what they have learned through authentic products and performances, and employ self-assessment among the forms of constructive feedback they receive.

* After Wiggins, G & McTighe, J (1998) **Understanding by Design.** Association for Supervision and Curriculum Development, Alexandria, VA.

This has much in common with contemporary ways of structuring the learning program around quality integrated inquiry. Such an approach is familiar to primary teachers, but presents many challenges to the 'faculty model' that still structures many secondary schools. Seaton (2002) suggests four curricular forms which will be of particular help to those secondary campuses trying to rethink their provision without a total change to traditional organisation. Chapter 6 provides further detail.

Seaton's model also has relevance for curriculum organisation in primary schools. Some knowledge and skills are best taught in a focused way, in a dedicated time slot. Some literacy and numeracy skills, musical notation, and aspects of LOTE and of ICT fall into this category. These skills are beneficially practised, applied and reinforced in transdisciplinary, inquiry contexts. Young children also benefit from community projects and from the opportunity to follow up personal interests and spontaneous events. Organising for quality learning involves balancing these competing needs. Effective teaching makes explicit the connections between 'pieces of learning', so that the overall curriculum experience is coherent for the learner.

In working with an 'essentials' framework, then, it is likely that secondary schools (at least for the time being) will operate from their subject courses and syllabi. They may use the essentials to provide an 'audit check' to ensure that major issues for young people in contemporary society are covered, that pieces of learning are connected, that deep study of a few things is possible and that students can see the real-world purposes for what they are learning. Collaborative planning between teachers who work with the same group of students will be vital to aid coherence and build depth of understanding.

In primary settings, teachers are likely to work the other way: taking the big ideas and life questions of the essentials as the core of their planning and programming, and reaching out to the learning areas for the sound knowledge base required for students to undertake integrated inquiry in depth, and to build conceptual understanding.

Essentials-based inquiry: Some examples

What does 'authentic inquiry' look like in the classroom? Some examples might shed further light.

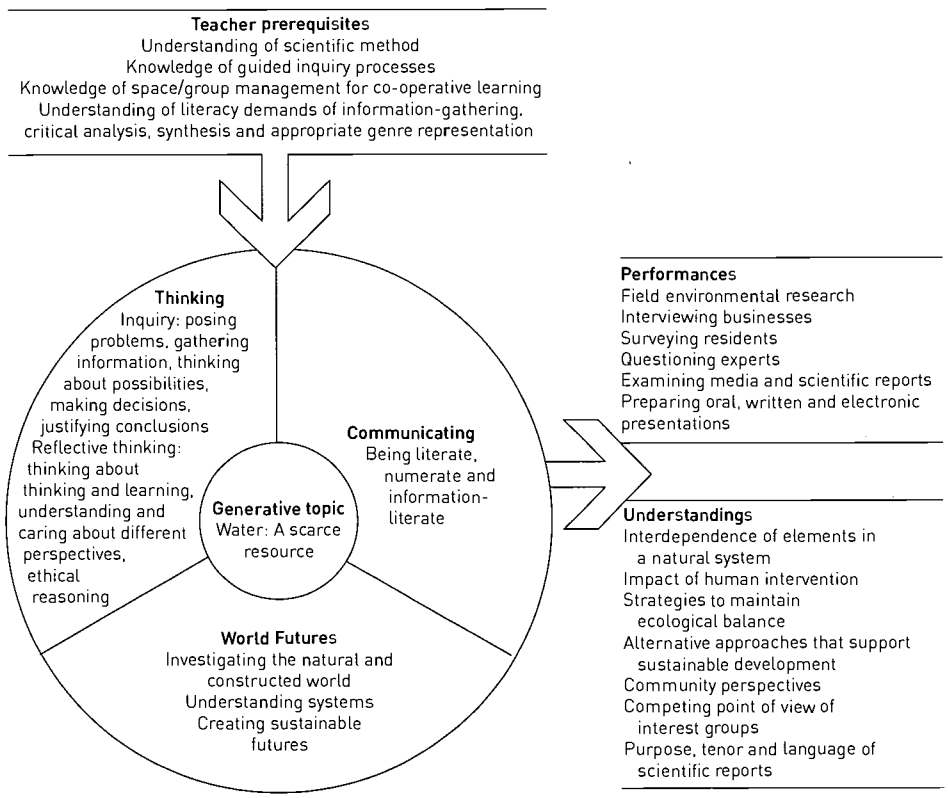
Inquiry around a generative topic

A teacher might initiate an inquiry based on the generative topic 'Water: A Scarce Resource'. In the Tasmanian essentials framework, this topic has World Futures as its 'host area', with particular attention to the key elements 'Investigating the natural and constructed world', 'Understanding systems' and 'Creating sustainable futures'. In undertaking the study, students would use skills from both the 'Thinking' and 'Communicating' essentials. Through the unit, students could develop understandings about the interdependence of elements in a natural system, the impact of human intervention, strategies to maintain ecological balance and alternative forms of sustainable development.

The teacher would need understandings about scientific principles and methods, knowledge about guided inquiry processes and co-operative learning, and deep understandings of the literacy demands of the study drawing on genre theory, functional linguistics, multiliteracies and critical-literacy perspectives so that students can critique the linguistic and quantitative information they encounter in print, media and digital environments.

Performances of understanding by students could occur as they research their environment first-hand, interview local businesses, survey local residents, question experts, examine media and scientific reports and prepare oral, written and electronic presentations for a range of audiences. Figure 1.3 summarises these relationships.

Figure 1.3: Using 'essentials' to guide a topic inquiry



Inquiry around literature

Similarly, but from a literature starting point, a teacher might choose to focus on a text such as *A Different Sort of Real: The Diary of Charlotte McKenzie* (Greenwood, 2001). This book lends itself to discussion about fiction and biography, about narrative point of view and critical perspectives, about characterisation and language style. It prompts inquiry into Australia's influenza pandemic of 1918-19, into how the roles of women changed in war and post-war times, and into the nature of courage.

In a subject or learning-area curriculum, the text might be studied in English, but it has clear connections to SOSE/History. In an essentials curriculum, the text has its home in the Communication essential in South Australia, Multiliteracies and Communications Media in Queensland, and Communicating in Tasmania. Inevitably, however, it can be used to develop understandings that attach to other 'essentials'. In Tasmania, for example, a study of the text would reach out to the 'Understanding the past to create preferred

futures' key element of Social Responsibility, begging reflection on ideas such as resilience, connectedness and achievement. It links to Personal Futures through discussion of Charlotte's developing sense of identity, her growing understanding of family and the complicated nature of relationships, her hopes and dreams for a preferred future and the social and political obstacles standing in her way.

In a Teaching for Understanding framework (see Fig. 1.1), the 'understanding goals' of inquiry might be understandings about:

- conflict and why it arises
- courage and how it might be differently interpreted
- community life and commemoration of the past.

In all of this, 'thinking' — in terms of inquiry and reflection — will be paramount to students' experience, and the full range of contemporary literacy roles, resources and practices will be utilised and developed.

Risks, challenges and opportunities

These new curriculum approaches present risks, challenges and opportunities. There are risks that it will be 'business as usual' — that educators will map the 'old curriculum' against the new and, with false clarity, confidently declare "We're already doing that". Or that an enthusiasm for the new will result in interesting inquiries that may engage students but are low in significance and intellectual challenge. There is a risk of a new utilitarianism, in which only that which seems of immediate usefulness need be taught. There is, as yet, no 'curriculum guarantee', whereby a student moving between schools can be assured of building a hierarchy of understanding about a connected set of key concepts, principles or skills.

The challenges are many. This new approach demands:

- deep teacher knowledge in more than one area of the curriculum
- passion and enthusiasm with which to inspire learners
- compassion for the young and their lives
- a rich repertoire of teaching practice
- imagination and the ability to make connections
- collegiality and a collaborative school culture
- a capacity for professional critical reflection and a willingness to change.

Conversely, the opportunities are also numerous:

- Curriculum planned around transdisciplinary knowledge and skills could lead to uncrowding, simplification and integration of learning.
- Problem-based tasks could give relevance and power to students for application to new fields of work and everyday life.

- The identification of key knowledge, skills, understandings and practices might question the validity and value of some time-consuming traditional subject matter.
- A radical reform of outmoded structures, timetables, teacher–learner relationships and habituated practices could result from a focus on cognitive depth and knowledge integration.
- The collaborative culture necessary to work in these new ways may lessen teacher isolation, lead to systems of collegial support and promote openness to reflection and ongoing improvement.

There is a chance for these new curriculums to be genuinely transformative — to 'free' education to fulfil its highest and best purposes: to develop thinking, caring, capable people who understand the complexity of things and yet who strive for a better world for all. It will all depend, as it always does, on the quality and commitment of teachers.

References and sources

Blythe, T et al. (1998) *The Teaching for Understanding Guide.* Jossey-Bass, San Francisco.

Blythe, T (2002) Notes at Tasmanian workshop.

Department of Education, Training and Employment of South Australia (2001) *South Australian Curriculum Standards and Accountability Framework.* DETE Publishing, Adelaide.

Education Queensland (2000) 'New Basics Technical Paper' v. 3: 3. Education Queensland, Brisbane.

Education Queensland (2001) *Queensland School Reform Longitudinal Study: Teachers' Summary.* Education Queensland, Brisbane.

Education Queensland (2002) 'The New Basics Curriculum Organisers'. Education Queensland website, October.

Fogarty, R (1998) 'The Intelligence-friendly Classroom'. *Phi Delta Kappan*, May.

Gardner, H (1999) *Intelligence Reframed: Multiple Intelligences for the 21st Century.* Basic Books, New York.

Goleman, D (1996) *Emotional Intelligence.* Bloomsbury, London.

Greenwood, K (2001) *A Different Sort of Real: The Diary of Charlotte McKenzie.* Scholastic, Lisarow, NSW.

Hirst, P (1965) 'Liberal Education and the Nature of Knowledge'. In Archambault, R (ed.), *Philosophical Analysis and Education.* Routledge and Kegan Paul, London.

Hogan, D (2002) 'Contemporary curriculum designs: Disciplinarity and authenticity'. Unpublished lecture. Faculty of Education, University of Tasmania.

International Commission on Education for the Twenty-first Century (1996) *Learning: The Treasure Within.* Report to the United Nations Educational, Scientific and Cultural Organisation. UNESCO, Paris.

Middleton, M & Hill, J (1996) *Changing Schools: Challenging Assumptions and Exploring Possibilities.* Hawker Brownlow, Melbourne.

Newmann, F et al. (1996) *Authentic Achievement: Restructuring Schools for Intellectual Quality.* Jossey-Bass, San Francisco.

NZ Ministry of Education (2000) *New Zealand Curriculum Framework.* NZ Ministry of Education, Wellington.

Schofield, K (1999) 'The Purposes of Education'. Consultation paper. Education Queensland, Brisbane.

Seaton, A (2002) 'Reforming the Hidden Curriculum: The Key Abilities Model and Four Curricular Forms'. *Curriculum Perspectives* 22 (1).

Sizer, T (1992). *Horace's School: Redesigning the American High School.* Houghton Mifflin, Boston.

Stone Wiske, M (1998) *Teaching for Understanding: Linking Research with Practice.* Jossey-Bass, San Francisco.

Vermont Department of Education (2000) *Vermont's Framework of Standards and Learning Opportunities.* State of Vermont Department of Education, VT.

Walker, D & Kelly, M (2002) 'The Art and Craft of Motivating Students'. About.com (Secondary School Education), October.

Wiggins, G & McTighe, J (1998) *Understanding by Design.* Association for Supervision and Curriculum Development, Alexandria, VA.

Wolfe, P (2001) *Brain Matters.* Association for Supervision and Curriculum Development, Alexandria, VA.

About the author

Jenni Connor has been a teacher, principal, superintendent and curriculum manager. She has worked on national curriculum projects and written state documents on learning, curriculum and assessment. She has managed equity programs for schools and has worked on Commonwealth projects in indigenous education over many years. She has also lectured teachers in training at the University of Tasmania. Jenni has served as both state and national president of the Children's Book Council of Australia, and judge for the Book of the Year Awards. She has chaired panels for Arts Tasmania and served on the Board of the Australian Children's Television Foundation. She is currently the national president of the Australian Literacy Educators' Association.

Building interaction:
Literacy programming in the early years

In this chapter, JENNY PAUL explores her approach to programming experiences that require language to be used interactively among early-years students.

Background

In seven years at Darwin's Anula School, I have taught from Transition to Year 3. Attached to the school is an Intensive English Unit (IEU), the only one of its kind in the Territory. The students enrolled in the Unit come from countries all over the world. At present, most come from Africa and Asia. Many of the Unit's students were refugees from East Timor during that country's fight for independence.

Students spend between ten weeks and one year in the Unit before they move on to a school closer to their home or are enrolled into mainstream classes at our school. As a result, we often have these students, alongside of other ESL students, in the classroom — and they can arrive at the beginning of any school term. On occasion, our classes might contain Aboriginal students who attend school during the wet, only to return to their home country for the dry. Occasionally some students return to their parents' country of origin for a period of six months or more, where they are consistently exposed to a language other than English.

Because of the Intensive English Unit, our school is quite large, catering for approximately 400 or more students at any given time. Most years we have a reshuffle of

classes at the end of the first semester to cater for the half-yearly intake of pre-schoolers to our Transition classes. This year, for example, four students entered my class at the beginning of Term 3.

All classes at this school are composite. That is, each teacher caters for two, occasionally three, year levels. This generally means that a diverse ability range must be catered for when programming. Due to the open-plan nature of the classrooms, teachers are encouraged to team-teach with their peers, or at least program together. Timetabling with the teacher in your area is a necessity in order to have 'quiet' and 'noisy' times coincide. This also means that spontaneity, or diverting from the program when an opportunity presents itself, is sometimes difficult.

Darwin has two distinct seasons: the wet and the dry. Outdoor excursions are best planned for between March and September — it's generally a safe bet that it won't rain in this period. This means that outdoor activities are more readily and more frequently planned for than, say, in a southern state. I have always found excursions to be enjoyable, shared experiences on which to base a variety of language responses.

Over the few years I have been teaching, I have noticed a significant increase in the number of students presenting with learning difficulties, behaviour problems and social and emotional difficulties. For some students, family life is not language-rich, and their exposure to varied and stimulating literature is rare.

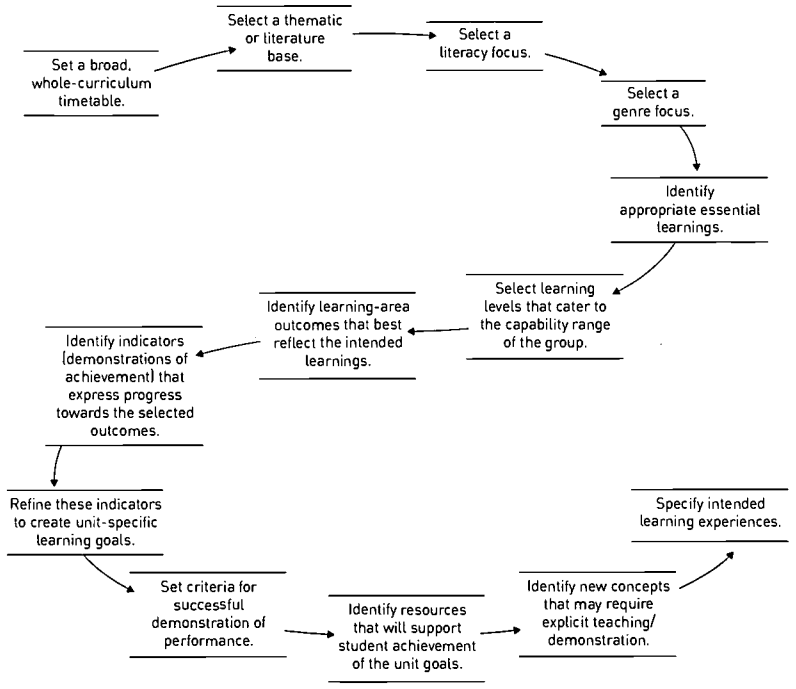
Approach to programming

All of the above suggests to me, firstly, the need to develop programs that are sensitive to the needs of children across cultures. Because some of my students are either ESL learners or come from language-poor environments, all of my programs incorporate activities that generate language through shared experiences. In this way I am better able to scaffold each student's language development. Even the more highly skilled language users benefit from this approach as the teacher supports their attempts to reflect and interpret events and refine ideas. I greatly enjoy reading, and I always ensure that I expose the students to a wide variety of literature on a regular basis. More than ever, I believe there is now a need to program wide-ranging experiences involving language *in interaction*. Through television in particular, children are spending more and more time as passive recipients of language, and less and less time *interacting* with people who are able to model and scaffold uses of the English language. Yet it has been my experience that this is something children love to do.

The programming process

Fig. 2.1 provides an overview of the programming process that will be discussed in what follows.

Figure 2.1: The programming process



Timetabling

Early in Term 1, I draw up a weekly timetable for all areas of the curriculum. Reading and responding, writing and spelling are catered for on a daily basis. Listening and speaking are incorporated into morning news time and into daily reading and writing sessions. The students circle-read in ability groups three days a week, regardless of their current theme of study. On the remaining two days we read and explore big books, poetry or songs related to the current theme/issue. In each case, listening and speaking responses are programmed.

Writing sessions generally begin with the reading of a story or a sample of a specific genre. The students are required to *listen* carefully in order to recount the sequence of events, identify language used, clarify elements of the structure, and so on. These readings serve as modelling sessions, and often provide a basis from which students write their own stories, reports or recounts. Students' needs will naturally dictate what takes place in these writing sessions; nonetheless, they will write, and discuss the writing process, each day.

The timetable is a very broad 'map' of experiences that I use to guide more specific programming. Fig. 2.2 provides an indication (by no means a fixed pattern) of the spread of experiences across a week.

Figure 2.2: Sample weekly timetable

Term 1 timetable

<table>
<tr><th>Time</th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th></tr>
<tr><td>8:15</td><td colspan="5">Morning news / Roll / Fitness</td></tr>
<tr><td>9:00</td><td>Computer lab</td><td colspan="4">Spelling activities</td></tr>
<tr><td>9:30</td><td>Recount / Word-processing</td><td colspan="3">Writing: Theme/Genre</td><td>Library</td></tr>
<tr><td>10:15</td><td colspan="5">RECESS</td></tr>
<tr><td>10:40</td><td colspan="5">Maths / Theme</td></tr>
<tr><td>11:40</td><td colspan="3">Reading: Circle, group & reponse</td><td>Theme reading & response</td><td>Theme reading
Assembly</td></tr>
<tr><td>12:40</td><td colspan="5">LUNCH</td></tr>
<tr><td>1:30</td><td colspan="5">Sustained silent reading</td></tr>
<tr><td>2:00
2:45</td><td>Science / Theme</td><td>Indonesian / Sports</td><td>Health / Theme</td><td>Art / Theme</td><td>Complete work</td></tr>
</table>

When I have devised more specific learning activities, I refer back to this timetable in order to work out where and when the activities can actually take place. For example, this term the research and the writing of reports was programmed to occur within our allotted time at the computer lab. During these experiences, students developed generic skills of collecting, analysing and organising information. They explored and used the language of research and of computing processes. They interpreted and responded to oral instructions in the process of creating tables and pamphlets, opening and saving their work, and altering paragraph and font settings. The more experienced and capable users gave support to their peers.

Generally, my programs run for a period of three hours a day for ten weeks. In order to maximise time spent on the program, I plan experiences that draw together a number of learning areas.

Selecting a theme

Where, then, do I begin with my programming for language development? Because I believe strongly in the value of teaching in context, I generally attempt to program within the context of a theme. Clearly, it is important to select a theme that will appeal strongly to students across cultures. And it must also be of interest to *me* — if I am enjoying the program, hopefully my excitement and motivation will be infectious. Many of my themes concern a study of some aspect of the environment, including its care and conservation, or a study of animals and their habitats. Such themes have included insects, dinosaurs, rainforests, the sea, air, water, author studies, food (see panel), celebrations, Australia, and reptiles.

The 'dinosaur' program involved the construction of a life-sized model of a young dinosaur that spanned two classrooms and a passageway. In the process, we explored many mathematical concepts and related language. A great deal of discussion and problem-solving took place. This project provided freedom and confidence to a number of students who generally had great difficulty in staying on task and listening in a whole-class situations. In this case, they were able to experience success in pairings that were assigned to engage in specific roles.

Regardless of the theme I employ, I always select a variety of related literature on which to base many of the students' learning experiences. Last term, and for the first time, I developed a literature program based on two novels read aloud to class. This program was not encased in a theme but the novels still provided a shared context in which to explore and develop language skills. Issues and topics presented in the novels generated a great deal of discussion and expression of ideas and beliefs.

Integrating literacy learning: Food

Perhaps the most successful program I have developed and implemented (in terms of language-learning) was one based on the topic of food. I believe that a great deal of its success was due to the fact that it was developed in consultation with a colleague. It is always more stimulating to talk over your ideas with a peer; not only do you end up with many more ideas than you started with, your own ideas are developed and refined as you reflect on feedback and suggestions. This sort of collaboration is rare and valuable. It is not often that colleagues are willing or able to do their programming in this way.

My colleague and I both wanted to develop a program that would not only teach students about a healthy diet, but would focus on the varied role of language in the day-to-day business of preparing and selling food. To begin with, we organised a trip to a local restaurant. Students visited both the kitchen and the dining space, where they saw for themselves how written language was organised into menus and order lists. They noted the layout and contents of the restaurant. They asked many questions, noting how orders were given and taken over the phone and at tables.

Back in the classroom, we further explored the language of restaurants using the many photographs taken on the excursion. In order that the students truly understood the varied role of language in restaurants, we decided to have the students plan and prepare a meal for their parents. This prompted a great deal of discussion on what was involved in getting the food, and the people, to the table. We began by creating a three-course menu that reflected, to a degree, work we had carried out on the healthy food triangle. Then we considered what food could be prepared and stored beforehand.

Once the menu was decided upon, we explored various recipes that listed the ingredients we would need to purchase. Later, we walked to the local shop where the lists were used to identify the necessary items. In the meantime, the class was happily and eagerly engaged in preparing for the big day in other ways. In groups, students discussed and planned various layouts and decorations for the restaurant. Many examples of menus were read and explored in order to identify the way in which they were organised. Once the dishes to be included were chosen, the students organised each dish under the appropriate heading. And so the menus were created. There were tablecloths and decorations to make, place name tags to create, and, of course, invitations to compose and send off to parents. Again this meant

viewing and identifying the features of many other invitations. This was followed by a collaborative construction of an invitation.

As the replies started flooding in, we realised we were in for a great deal of work. The classroom was abuzz with excitement and a sense of real purpose as students enthusiastically applied themselves to all related tasks. Parent help was enlisted as students read menus in order to prepare and cook items on the menu. When the big day came and parents arrived, they were first marked off on a booking list. The students then escorted their parents to their allocated seats, handed them menus and took their orders. These were sent to the kitchen where they were read and fulfilled. The students served their parents, then joined them. Throughout the whole exercise, the students remained highly motivated. A great deal of discussion took place as students shared and refined their ideas, made choices, argued their point of view and made decisions. They were involved in a great deal of reading, writing, listening and speaking for a real purpose, and they had developed a sense of ownership over the learning process.

Selecting a literacy focus

Once my theme or topic has been selected, the next step is to identify the areas of literacy I want to focus on, as reflected by the students' needs. For example, last term my colleague and I agreed that our students needed to develop their reading, listening and speaking skills. In response, we developed a literacy program based on two novels. Like all of my units of work, this program incorporated the reading and exploration of many texts related to the theme — or, in this case, related to issues raised in the novels (stereotyping, loss, values, bullying). This approach provides models of language for students whose home life is literacy-poor while stimulating and extending the other students.

I also select a genre focus for each term, one that relates well to the theme being explored. Last year my class worked on fantasy and fairytales, which meant that we read and viewed many fairytale texts. In the process, we explored the structure and language of narratives. The exploration of the selected genre is detailed in the program. The aspects of genre that are explored and clarified depend upon the students' past experience. If, for example, they have had extensive exposure to the *structure* of a narrative, the focus might be to explore the *language* typical of a narrative, and its purpose. Because of the wide-ranging capabilities that my students demonstrate, we may explore many aspects of the genre within the program. Some students may focus on developing and applying a knowledge of structure; others may be developing their ability to select and maintain appropriate tense, or use descriptive language to enhance characterisation and setting. It may also mean that some students write independently (or with very little support), while others work with the teacher to construct a text collaboratively.

Identifying outcomes

Next, I identify what it is I want the students to work towards. Exploring the NT Outcomes Profiles, I select two or three Essential Learnings (broad outcomes) that best reflect my objectives at levels that match the needs of my students. These Essential Learnings are also selected on the basis of how well they support the theme. For the theme 'Australia', for example, I selected three Essential Learnings. The first, Constructive Learner 2, supported my intended focus on report-writing. From this 'Learning', I selected three bands, or levels, that would cater to the ability range of my student group. The most demanding of these bands asks students to "develop and record a plan for completing reports" and "respond to feedback to improve the quality of reports". The less demanding band asks students to "explore and identify different ways information on Australia can be presented", to "find and use groupings to organise information" and to "put information for reports into workable formats". The least demanding band asks students to "draw pictures to support text" and "identify features of their work that give it value". Two other Essential Learnings reflected various other objectives I had identified. These included the ability to:

- locate and use information from atlases, books, and the Net
- respond to and compare stories from the past to their own lives in the present
- compare life in the past to the present in relation to use of leisure time, transport and buildings
- recognise, learn and recite/sing traditional Australian poetry and songs
- explore/identify the many purposes of traditional Aboriginal stories.

It is then necessary to identify the learning-area outcomes that are most relevant to the 'Learnings.' Again I select outcomes across three different levels in order to meet the diverse needs of my students. I want students to carry out activities that best support and extend their *capabilities*. That means that a Year 2 student may be working on writing activities at a Year 2 level while carrying out Year 3-level activities in reading and speaking.

Having identified learning-area outcomes, I consider key *indicators* of achievement — the sorts of things that students *will do* in order to demonstrate progress towards the outcomes. These indicators often serve as a springboard for developing ideas for further learning activities. This term I wanted my Year 3 students (and the more capable Year 2 students) to give an oral book talk. I also wanted every student in the group to write a report: the more capable students were to write a report on a state of Australia in a travel-brochure format; the remaining students would write on a selected native Australian animal. One appropriate indicator of English achievement was that students would "effectively produce and deliver a small range of cohesive oral texts that include key aspects of where, who, when, what and why when planning and presenting an oral book report". With my own class theme and objectives in mind, I refined this statement to create a unit goal. Students would "effectively produce a short cohesive oral report that gives key information of where, who, when, what and why, based on an Australian novel selected and read by the student".

With a unit goal set, I then clarify what successful performance will look like — both for my own benefit and for the students'. In this case, I expected students to:

- identify the main characters
- identify and describe the setting
- recount how the story begins
- recount a sequence of events
- identify the problem or complication
- recount how the problem is solved
- state what they liked best about the story
- evaluate the story, saying why they would/wouldn't recommend it to others.

I presented these requirements to students in tabular form so that they could use them to guide the planning and self-evaluation of their talk.

Identifying resources

Now it is time to identify and collect related resources in order to develop ideas on how best to support students in achieving the identified outcomes. These resources are not only textual; they may include such things as people, places, objects and animals. One important advantage of many of my selected themes is that they lend themselves to excursions, and provide the opportunity to raise or observe animals in the classroom. Over the years we have raised chickens, lizards, guinea pigs, insects, spiders and ducks. At present, we are raising a python named Striker. The students adore Striker, who is readily handled. This provides an opportunity to develop descriptive language: my students have come to a deep comprehension of words like *slither, slide, muscle, smooth, shedding, scales* and *striking*, to name a few.

Not only does the raising of pets encourage language interaction, it fosters a sense of responsibility in students while providing comfort to those who don't have a pet at home. It provides shared experiences from which students can write collaborative reports, descriptions, stories and explanations. We always photograph the pet's growth and interactions with the students. These photos are labelled and displayed. Usually, students take it in turns to care for the animal over a weekend. This can provide an opportunity for them to write a recount of their experiences in much the same way as they do when they take home class 'teddies'. These recounts can be collated to create a class book.

Textual resources include videos, reading materials, fiction and information books, news articles, magazines, commercial samples of activities on the topic, posters and charts, big books, and song and dance tapes. I collect textual resources from many places, starting with the school and education libraries. (I must confess, though, that I don't have a good track record at returning items by the due date to the latter, so I sometimes avoid it.) I also track down source materials from retailers, public libraries, video shops, travel agents, as well as from my own resources and those of my peers.

Having collected textual resources, I then sit amongst them all, flicking through them, viewing and listening to them. If I plan to use a book in my program, I read from front to back. In the process, I identify concepts that may be difficult for the students in my class, particularly my ESL learners. (I listen to one of my ESL learners read to me every day after school, and I am constantly surprised by the number of concepts she struggles with — things like 'lawnmower' that we may take for granted.)

Using resources to generate programming ideas

The exercise of encountering texts related to a theme can stimulate a range of programming ideas. The two novels that were selected to support our literacy program last term are two very good examples: *Pippi Longstocking* and *James and the Giant Peach*. These books were selected to support and develop listening and speaking skills. They did not sit 'under' a theme; rather, they initiated an exploration of stereotyping, of bullying, and of death and dying. In the process of reading these books, I identified many opportunities for my students to practise and develop literacy skills within the context of the story.

Example text: Pippi Longstocking

Pippi Longstocking is an amusing story that explores the experiences of three young children who are of a similar age to that of my students. It presented an opportunity to explore the stereotyping of boys and girls in society as a whole. Students were able to draw on their own experiences to explore this issue and to compare perspectives with their peers. This topic encouraged a great deal of enthusiastic discussion and gave rise to explorations of many other stories that allowed us to focus on stereotyping. A class favourite was a big-book version of *The Paper Bag Princess* (Munsch, 1989). Another was *Princess Priscilla* (Apeitos, 1993), which in itself gave me the idea for using character interviews.

Character interviews

This task was new to the students. I began by choosing a picture of the characters and then modelling the formulation of questions to ask of them, beginning with Who, What, When, Where or How. I recorded these onto the whiteboard as a class reference. Students then volunteered to act as the interviewer while I portrayed the chosen character. The students then selected one of the questions from the list to ask of me. In this way they were confident in taking part, regardless of their ability. In fact it was the lower achievers who seemed to enjoy this the most. I suspect that this was due to the open-endedness of the task — that there was no right or wrong answer to ask or give. Once they had been exposed to the process over a period of time, the students gradually took on all of the roles, using different books and characters along the way. The whole experience generated a great deal of laughter and enthusiasm.

Newspaper reports

An added bonus to this book was the unexpected opportunity to explore, model, then write newspaper reports based on incidents in the story. This was a genre we hadn't

explored before, although we had explored reports on animals. To begin with, we examined newspaper reports taken from our local paper, identifying ways in which they were similar to, and different from, our earlier reports on animals. In the process, we identified the ways by which some newspaper reports aimed to attract the reader by sensationalising events. We examined how pictures of the event supported the story. We then selected an event from *Pippi Longstocking* and wrote a collaborative newspaper report. Later in the program, the more capable students wrote a report on a chosen incident independently.

As would be expected, the students were impressed with Pippi's strength and wealth, and the fact that she lived alone. These points provided many opportunities for discussions/brainstorming as the students explored the pros and cons of living alone, being very rich, being very strong, and not fitting a stereotype. This story, then, lent itself to the development of many activities that served to generate a great deal of language interaction as students shared and refined ideas, weighed pros and cons, argued their point and examined what was realistic and what wasn't. Throughout the book, students had to *listen* for information on which to base their work. One such task involved them in listening for descriptive passages about Pippi, then using the gathered information to draw and label a picture of her. The work on this book culminated in the class constructing a 3D life-sized model of Pippi based on descriptions in the book. This book allowed the students to escape into a world of imagination, power and heroism. In the process, they explored and extended the use of related language.

Figure 2.3: Brief outline of programming opportunities generated by **Pippi Longstocking**

PIPPI LONGSTOCKING

Literacy focus: Talking and listening	**Genre focus:** Newspaper report, narrative
Theme/Issue: Stereotyping	

Possible experiences

Introduce and explain the term 'stereotype'.	Support students to take interviewer and character roles to ask/answer self-generated questions.
Discuss and clarify examples of stereotyping.	Revise report-writing on animals.
Examine other texts that foreground issues of stereotyping.	Jointly explore newspaper reports; identify features; compare with previous learning.
Refine ideas and express points of view.	Jointly select an event to report from *Pippi Longstocking*.
Introduce *Pippi Longstocking*.	Jointly construct the report.
Discuss and clarify new terms and concepts.	Support students to identify events that could be represented in newspaper-report form.
Read to class.	Support students to write reports of their selected events (more capable students writing independently; others working with teacher to construct a report on another selected event).
Identify character set.	Have students revise and draw a picture of the event to support/enhance the text.
Model the questioning of each significant character.	
Record and display the model questions.	
Have students use the model questions to interview the teacher in role.	
Support students to devise their own questions using who, what, where, when, why.	

Example text: James and the Giant Peach

The story of *James and the Giant Peach* also allowed for the exploration of newspaper reports as we revised and expanded on what we already knew. Before attempting to write a report, we explored just who could have been in the position to witness each event — information that was not included in the text. As students completed the writing of their reports, they had to add a picture that supported the text. These reports, along with other pieces of related work, were displayed in the library, while some were read at assembly to provide students with the opportunity to read aloud to an audience.

James and the Giant Peach also lent itself to the mapping of a story that recorded the journey of the peach from the aunt's home on a hill to the cliff and then the sea. To create this map, students first had to listen for the information during a whole-class reading. Next, I asked them to recall the stages of the journey in sequence, recording their suggestions. This required them to revise and sometimes correct their memory of events as they jointly reconstructed the journey. Using the agreed sequence, they then had to visualise the journey and represent it individually in the form of a story map. This they labelled. The maps were then incorporated in a display in the library, along with related work they had completed.

The beginning of this story describes James' aunts' physical features. Students listened carefully to these descriptions in order to draw a picture of one of the aunts.

The book also provided opportunities to explore various issues of concern to students in the class. One that greatly concerned them was that James' parents had died and he had to live with cruel aunts who obviously didn't care about him.

Both *Pippi Longstocking* and *James and the Giant Peach* were also viewed on video. This enabled us to explore and discuss similarities and differences between:

- the printed and audio-visual versions of each story
- the two stories themselves.

Figure 2.4: Brief outline of programming opportunities generated by **James and the Giant Peach**

JAMES AND THE GIANT PEACH

Literacy focus: Talking and listening **Genre focus:** Newspaper report, description

Themes/Issues: Loss, separation

Possible experiences

Introduce *James and the Giant Peach.*

Discuss and clarify new concepts.

Discuss/Explore feelings relating to loss and separation from family.

Read/Examine other texts that deal with these issues.

Have students refine and re-express views/feelings on the issue.

Introduce/Revise the concept of description.

Discuss/Clarify the role/concept of adjectives in descriptions.

Model using adjectives to describe a member of staff.

Have students interpret the description to identify the staff member.

Model drawing a picture based on the verbal description.

Read book description of aunts to class.

Have students note adjectives used.

Have students apply their interpretation of these adjectives to draw one of the aunts.

Have students examine each other's drawings and attempt to identify the aunt drawn.

Ask students to reread the list of adjectives to evaluate the drawings for accuracy.

Revise newspaper report-writing, reflecting on earlier experiences to identify purpose and features.

Select events from the narrative for newspaper report-writing.

Collaboratively write a whole-class report on one of these events.

Support more capable students to select an event and write a report independently. Have other students work with teacher to construct and illustrate a report based on another selected event.

Students read reports at assembly, or to each other.

Students imagine they are James and share their responses in relation to selected events that happen to him.

Explore/Revise the concept and features of story maps in other brief texts.

Jointly construct a story map.

Read the journey of the peach to whole class.

Have students retell the journey in sequence. Scribe as a list.

Discuss and revise the list as necessary.

Support students to use the list to draw their own story map of the journey.

Revise the use of labels.

Have students label their story maps.

Writing a teaching–learning sequence

Having investigated available resources and identified numerous activities that might support the students to achieve the identified outcomes, I begin to write my program up as sequenced learning activities. I usually map out this sequence using the 'Geraldton model'*. I particularly value this model because it encourages you to devise a range of activities that explore the same idea in different ways. It also structures the development of a learning sequence that enables the teacher to withdraw support gradually as the students move towards independent understanding and control. If my goal is for students to write a narrative independently, I begin with input or *engagement* — for example, I introduce the themes of a narrative and read it to the group. Then, orally, we *explore* aspects of the text — new concepts/words, structure, or perhaps the sequence of the story, depending on the outcome we are working towards. Next I might ask the students to begin to shape or *transform* their understanding of the story, perhaps through dramatisation. This is particularly useful in helping students to internalise the structure and sequence of the narrative. I might then ask them to reshape their understanding by sequencing the narrative as a set of images, comic-strip fashion. By adding captions, the students can create a retelling that they then *present* to the class. I will also give students the opportunity to *reflect* on their understanding, perhaps by rewriting the story but changing the ending or characters.

* *The five-phase planning model derived from the Geraldton project — engagement, exploration, transformation, presentation, reflection — is detailed in the PETA book* Managing Small-group Learning *(Reid, 2002).*

The use of this model requires time and good organisation but I appreciate the support that it provides for program development and implementation. It serves very well to ensure that an outcome is steadily worked towards. Alongside each activity, I record the learning outcome that the activity is aimed towards (see Fig. 2.5). This process acts as a check to ensure that I have covered all targeted outcomes.

Figure 2.5: Snapshot of a program around penguins, developed using the five-phase 'Geraldton model'

Literacy focus: Listening, writing **Theme/Issue:** Change and development

Genre focus: Report, guide, exposition

Experiences	Outcomes
Engagement/Exploration: Explore samples of simple timelines based on plant or animal life cycles. Identify features. Collaboratively construct a labelled timeline based on the class growing of tomatoes. Use photographs of, for example, the tomatoes' growth to review the sequence.	**Texts and contexts** *L/S KPG 3.1* Listen and make relevant comments regarding timeline. *L/S B 1.1* Listen attentively and contribute to exploration/construction of timeline. *L/S B 2.1* Listen and respond to information on timeline, making relevant contribution to its construction.
Engagement: Begin reading *Pinquo* (Thiele, 1983). As the reading progresses, students listen for the stages of a penguin's life from 0–13 weeks. Indicate that they will use this information later to create a timeline. Students brainstorm stages; teacher lists. *Transformation:* Using the above list, have students work together to sequence and illustrate the stages of a penguin's life cycle. The students affix pictures to the wall in a line. *Presentation:* Students create and affix matching labels for the pictures. *Reflection:* Students create their own timeline using prepared pictures and text.	**Writing: Strategies** *W B 1.3* Attempt to plan and discuss ideas/ information on timeline, then help to construct. *L/S KPG 3.1* Listen for stages of life cycle. *Band 1.1* Listen for and express stages of life cycle. *Band 2.1* Listen for stages and clearly state these to class. **Writing: Strategies** *W KPG 3.3* Draw simple pictures and add labels. *W B 1.3* Attempt to plan/discuss information to create a timeline. Use labels to define features of timeline. *W B 2.3* Use more complex visual timeline to express the penguin's life cycle.
Engagement/Exploration: Revise report-writing on animals. Identify the purpose and features, recording as headings the information usually included (description, habitat etc.). During a reading of the relevant chapters, ask that students listen for information relating to the headings. List the information they identify under the relevant headings. *Transformation:* Using the collaborative list, students write a report on penguins. More capable students can draw up their own table/plan; less able students work together with teacher to formulate sentences from the list. *Transformation:* Students draw pictures to match text. *Presentation:* Using the group's text and pictures collaboratively constructed, create a big-book report on penguins.	**Listening and speaking** **Texts and contexts: Strategies** *L/S KPG 3.1* Listen for and discuss purpose of reports. *Band 1.1* Listen and contribute ideas on purpose and features of reports. Give information on penguins. *Band 2.1* Listen for life stages and clearly state these to class. **Writing** *W KPG 3.1* Make relevant suggestions as teacher scribes in order to construct sentences. Sequence sentences in order to construct a report on the penguin. *Band 1.1, 1.3* Write a report on penguins containing a few related ideas, correctly sequenced, based on a prepared list. *Band 2.1* Plan/Compose a report on penguins based on a prepared list. Compose diagrams with labels and captions.

Experiences	Outcomes
Engagement: Go for a local walk and record significant sightings, shops, school, park, in order. On returning, model using the list to draw a story map of the journey.	**Listening and speaking** *L/S KPG 3.1, L/S B 1.1 & B 2.1* Listen and respond to instructions on creating a story map.
Engagement/Exploration: Read the chapter in *Pinquo* telling of the path the children took into Sickle Bay. Students jointly recount the journey, in sequence, after the reading. List the sequence.	*KPG 3.1, L/S B 1.1* Listen to reading of journey of children into Sickle Bay in order to identify icons represented in reading.
Transformation: Students use the list to draw/paint a map of the journey (building on exploration of 'bird's-eye view' during an earlier maths session). More capable students base their map on their own reading of the journey, using key descriptive (e.g. 'large', 'steep', 'narrow') and relational (e.g. 'alongside', 'under', 'within') words that they identify and underline.	**Reading and viewing** *Band 2.1* Read, identify key words in order to retell the children's journey into Sickle Bay in sequence as a story map.
Presentation/Reflection: Students label their pictures to support/clarify the sequence, and exchange with a peer for comment/evaluation.	**Writing** *WKPG 3.1* Draw simple story map in sequence and with labels to represent journey. *W B1.1* Create a story map to retell journey in sequence. Use labels to define key features and sequence.
Exploration: As they listen to a reading of the relevant chapter, students identify damage caused by visitors to the penguin's habitat in the town of Sickle Bay. Discuss some potentially positive aspects of increasing tourist numbers.	**Listening and speaking** *L/S KPG 3.1, B 1.1, B 2.1* Listen to reading of text in order to identify and tell of damage created by the tourists.
Transformation: Depending on ability, students compose a sentence and/or create a labelled drawing to show the impact of tourism on the habitat.	**Writing** *KPG 3.1, B 1.1, Band 2.1* Compose a sentence or visual text to represent individual understanding of tourist damage.
Engagement/Exploration: As whole class, explore local newspaper articles that identify issues relating to expanding human access to different locations (e.g. rare birds' habitats destroyed in construction of NT railway line).	**Listening and speaking** *L/S KPG 3.1, B 1.1, B 2.1* Listen to reading of newspaper accounts of issues around tourist development, and briefly identify/recount the pros and cons of each.
Transformation: Provide different scenarios of tourist development. Students work in mixed-ability groups to identify positive and negative effects for each scenario. One person in each group scribes a sentence to read back to class.	*L/S KPG 3.1, B1.1, B 2.2* Work co-operatively in order to listen for and identify pros and cons of event in article. Construct a sentence to express understanding. Argue, express/share, interpret, refine own understandings.
Presentation: Students classify their sentence under prepared headings of 'Positive' and 'Negative' to create a wall chart.	**Writing: Text and context** *KPG 3.1, B1.1, B2.2* Reflect on understandings of the pros and cons of tourist development; present understandings in writing or pictures.
Reflection: Students write sentences or draw pictures to summarise their understanding of the impacts of tourist development.	

Accommodating difference

In order to accommodate differing abilities amongst the students, I sometimes devise two or more alternatives for the same task. For example, I might ask that one group draws, writes and sequences a retelling of a story read, while another group might sequence prepared pictures and add captions. Similarly, I might ask one group to write a report on a familiar animal that is related to the theme (and provide them with a structure in tabled form), while a more highly skilled group might write a report on an unfamiliar topic, perhaps without a recorded structure. In some instances some students

jointly construct texts in groups with the teacher as scribe, while others write independently. These differences are written into the program. I also make use of mixed-ability groupings, in which the more skilled language user models language use in interaction. These groups also enable students to draw on the ideas of others while ensuring that, regardless of their ability, individuals are assured some measure of success.

Mixed-ability groupings can often work to promote co-operation and a sense of cohesion, encouraging students to pull together to succeed. They provide opportunities for more capable students to exercise their skills in explaining and interpreting. This kind of peer scaffolding can work in important, pragmatic ways — for example, in cases when my requests or explanations have not been entirely understood. It is amazing to see how effectively students are able to paraphrase my instruction to make the meaning clear for their peers! Sometimes students support each other in pairs: I used this organisation, for example, when I asked students to translate a verbal description of places and landforms onto a map.

It is often very difficult to provide all students with the support necessary for them to complete tasks with reasonable success. I make full use of the support of my aide, and of parents and neighbours, who work alongside the students. One of my neighbours visits us every week to lend support to our reading program; some parents have worked with the students in such activities as circle-reading sessions, maths groups, cooking sessions and craft constructions. Although they work primarily with higher-needs students, they provide role models for the students in general, representing mature speakers of English with whom the students can readily converse.

When drafting a sequence of learning experiences, I ensure that, to some degree, all areas of language are exercised so that all students have an opportunity to showcase their strengths. One student in my class, for example, has great difficulty in narrative-writing. But he is brilliant at *telling* stories, employing timely and appropriate expression and making use of an extensive and well-selected vocabulary. Because I always plan for a great deal of discussion and expression of ideas, this student has many opportunities to realise the value of his skills.

Although I generally stick closely to my program, I am prepared to veer from it when an opportunity presents itself. Sometimes the outcome of *these* opportunities is more successful than those programmed! Sometimes a resource will come to hand that was not available when the program was devised. Just last week I came upon a taped documentary on Arnhem Land that explored the ways in which an indigenous community lived off the land. That short video covered explicitly an area of the program we were working on. I promptly showed it, asking students to work in mixed-ability groups to listen for information. In this instance, one of the class's Aboriginal students was able to contribute a great deal to our question-and-answer time, which served to boost her self-esteem.

I am always conscious that certain activities may not engage the students or may not flow as planned. In these instances I have no hesitation in removing them from the

program. Conversely, if an activity is working well and the students are enthused, I tend to repeat the exercise. This was the case with the character interviews discussed earlier.

Maintaining focus

Once I have set out the sequenced learning activities, I estimate the *time* needed to carry them out. It is important to note here that I attempt to integrate, where possible, across the curriculum to ensure that maximum time is spent on working towards the targeted outcomes. As we work on our 'Australian' theme this term, the students have been learning stories, songs and poetry from the colonial and pre-colonial past. In order to highlight the diversity of culture that has contributed to the construction of what it means to be Australian, we began our program by exploring Australia's first inhabitants, their traditional culture and related stories. We then enlisted parents' help in an effort to identify the origins of students' ancestors. In the process, the students appreciated that Australians today have their origins in many different and diverse cultures. At present, they are discussing, exploring and refining their ideas and beliefs. They are reading stories, songs and poetry. They are learning, performing and demonstrating bush dances, coming to understand the associated language. They have constructed bush instruments to use in these performances. They are learning about the states and cities, seas and landforms of Australia, mapping these as they learn to interpret an atlas and use some of the language specific to maps. All of this is being learnt in context and for a real purpose. And it is loads of fun!

Where possible, I also attempt to integrate our thrice-weekly circle-reading sessions into the program. But because I have five levels in my reading groups (which adds up to a lot of books), it is impossible to have all of this material 'fit' the program. At present, my students are reading stories about Australia or written by Australians. Through reading Australian stories and responding to them in various ways, the students gradually build up a more complex picture of the concept of being an Australian.

Reading sessions always involve the students in making various responses that require an appropriate level of challenge. Where possible (and depending on the books read), we explore various aspects of language: identifying a spelling pattern/rule; reinforcing comprehension; discussing relevant issues that arise; sequencing; writing blurbs for the story; creating story maps; exploring grammar and punctuation; creating 'wanted' posters; dramatising events. A key aspect of programming is, therefore, to identify opportunities for language-learning that are presented by selected texts. I have demonstrated this process using the two sample texts discussed earlier.

Another key aspect of programming around reading is to identify opportunities for teacher scaffolding. Even capable students cannot be expected to enjoy deep comprehension if they are not supported in understanding new concepts. Lowe (2002) advises that students' pragmatic knowledge must be explored and developed *before* they read in order to ensure success. To give a simple example: my skilled readers are currently exploring the book *The Sack*. They have just read about rhubarb-and-apple pie. Many had no idea what rhubarb was (especially coming from the Territory), so I engaged

my elderly neighbour in making the pie with this reading group. These students now truly comprehend the concept of rhubarb-and-apple pie. In the process of cooking, they also explored and used the associated language. Further, they have explored the concepts of depression, redundancy and mortgage, as well as the issue of dealing with anger.

So, at the risk of repeating myself, I believe it is important that I read each text as a *precursor* to detailed programming. This is the only sure way to identify the opportunities that the texts naturally and authentically offer to explore and develop language.

References and sources

Apeitos, S (1993) *Princess Priscilla*. Angus & Robertson, Sydney.

Curriculum Services Branch, Northern Territory Department of Education (2000) *NT Outcomes Profiles*. NTDE, Darwin.

Dahl, R (1973) *James and the Giant Peach*. Puffin Books, Harmondsworth, UK.

Lindgren, A (1950) *Pippi Longstocking*. Trans. by Lamborn, F. Viking Press, New York.

Lowe, K (2002) *What's the Story? Making Meaning in Primary Classrooms*. Primary English Teaching Association, Sydney.

Mattingley, C (1993) *The Sack*. Puffin, Melbourne.

Munsch, R N (1989) *The Paper Bag Princess*. Ashton Scholastic, Sydney.

Reid, J (2002) *Managing Small-group Learning*. Primary English Teaching Association, Sydney.

Thiele, C (1983) *Pinquo*. Rigby, Adelaide.

About the author

Jenny Paul teaches Years 2–3 at Anula School in the northern suburbs of Darwin, NT. Originally from Adelaide, she has lived in Darwin for the last 22 years. From a family of seven children herself, Jenny has always greatly enjoyed working with children, and wanted to become a pre-school teacher from an early age. She hopes to continue to teach in early childhood until retirement.

Programming template

Timetabling What time do I allocate to each curriculum area, and which areas are to be explored daily?	**Theme/Literature base** What theme or literature do I want to base my program on?
Literacy focus What are the students' needs? Do I need a reading, writing, or listening/speaking focus?	**Genre focus** What genre focus does this program lend itself to, and what are the students' needs?

Essential Learnings

What do I want the students to work towards in this program? What levels best reflect their needs and diversity of capabilities?

1.

2.

3.

Learning outcomes (cross-curricular)

What outcomes will best support the Essential Learnings?

Reading	Writing	Listening/Speaking
Maths	SOSE	Science
Health	Arts	Technology

Indicators / Unit goals

What will the students do to demonstrate progress towards each of the identified outcomes? How can I tie them to the theme?

Reading	Writing	Listening/Speaking
Maths	SOSE	Science
Health	Arts	Technology

Resources

What books, magazines, videos, guest speakers, tapes, picture sets etc. can I use to best support students in achieving these outcomes? What excursions might enrich students' understandings of the concepts being explored/developed?

New concepts

What concepts will need to be explicitly taught or expanded upon?

Ideas / Learning experiences

What opportunities do these resources provide to explore and develop the students' language learning across the curriculum?

Time

Through integrating, what is the maximum number of hours I can allocate to this program?

Sequenced learning activities	Outcomes
Engagement	
Exploration	
Transformation	
Presentation	
Reflection	

Beyond learning areas: Literacy and the rich-project curriculum

In this chapter, LEE WILDE and ANNE-MARIE MAREK outline an approach to curriculum programming that is organised around rich, transdisciplinary projects.

Background: Opening cages for ages

Over the past six years, our school has fundamentally changed the way it goes about the business of education in order to meet the needs of twenty-first century students. We have had to break down some sacrosanct educational practices: we have broken the traditional nexus between age and educational expectations; we have created exciting, engaging and effective learning without traditional learning areas; we have challenged conventional views about the teacher's role, programming, curriculum documentation, timetabling, monitoring, assessment and reporting; and we have created facilitated learning environments rather than classrooms. However, unlike earlier fad eras in education, we have not compromised basic skill development or accountability.

By the end of 2001, we had become concerned about curriculum clutter, and about the disengagement of many students, especially in the upper-primary years, who were physically 'trapped' in, but socially and psychologically beyond, the primary-school environment. The growth of middle schooling has been one response to this issue, but for those of us in a traditionally organised primary/secondary system in which many

students will not have a middle-schooling opportunity, there was a need to create quite a different approach to education.

We decided to take the essence of the work being done in Queensland on 'rich tasks' and 'productive pedagogies' (see also Chapter 4) and combine it with what we had learned about the individualisation of learning, to create our own unique approach to curriculum design and delivery. We started to develop the *rich project curriculum*.

Our rich projects differ in some important ways from rich tasks as conceptualised in Queensland. They are *teaching vehicles*, not culminating activities, and they constitute 90 per cent of the curriculum. They have inbuilt levelling, learning differentiation, monitoring, assessment and reporting facilities.

Approach to programming: A rich-project curriculum

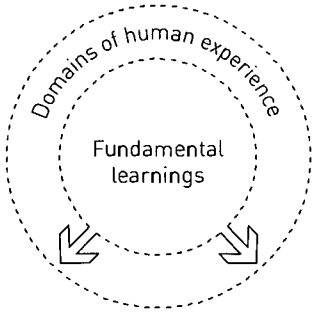
Our Year 1 to Year 6 curriculum is presented as a series of transdisciplinary rich projects, carefully conceived and designed across the stages* so that all the outcomes of primary education are achieved over the 24 or so projects. The Kindergarten year is used to teach the students about the 'world of work' at school, in preparation for the start of the rich-project adventures in Stage 1. The curriculum is based on the following assumptions.

* *Broadly speaking, the Stages 1, 2 and 3 correspond with Years 1–2, 3–4 and 5–6.*

- All learning is a combination of different types of learning from a variety of disciplines. While this is often acknowledged in curriculum documents, it is rarely fulfilled through a traditionally organised KLA-based curriculum.
- In the twenty-first century, children need to know that there are valuable things to learn, and that the value of this knowledge changes with time and context. More importantly, they need to know that they will never 'get to the end' of learning, or know all there is to know, so they need to have the skills and strategies to gain access to knowledge as required.
- As appropriate to their developmental maturity, students can and must be taught how to take responsibility for their own learning.
- Students present with a wide variety of capabilities and learning styles; these must be truthfully addressed through the curriculum.

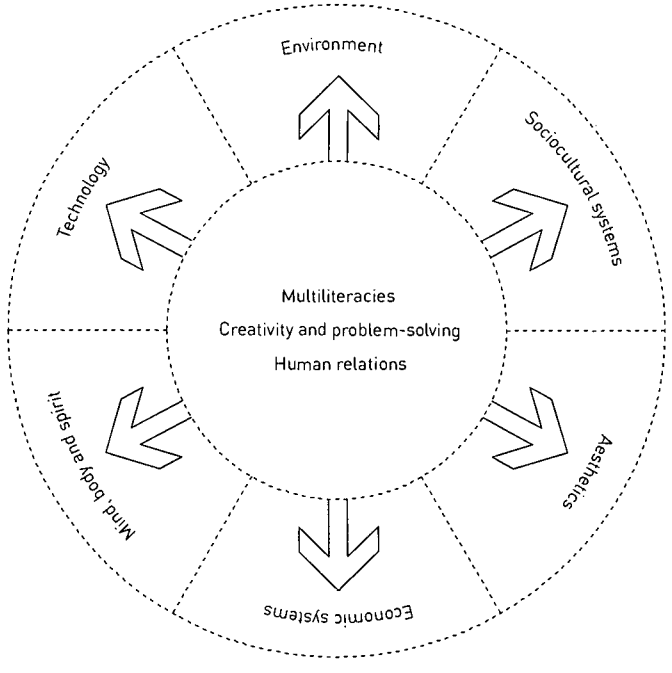
The model we use seeks to embed principles of authenticity (see Chapter 1) by siting fundamental, generalisable learnings at the heart of curriculum and relating these to the things that matter in life beyond the school — the areas that define contemporary human experience (Fig. 3.1).

Figure 3.1: A new model of curriculum



These two 'bands' of learning replace the processes, skills and content of the current learning-area documents. We have defined the bands in the following way (Fig. 3.2).

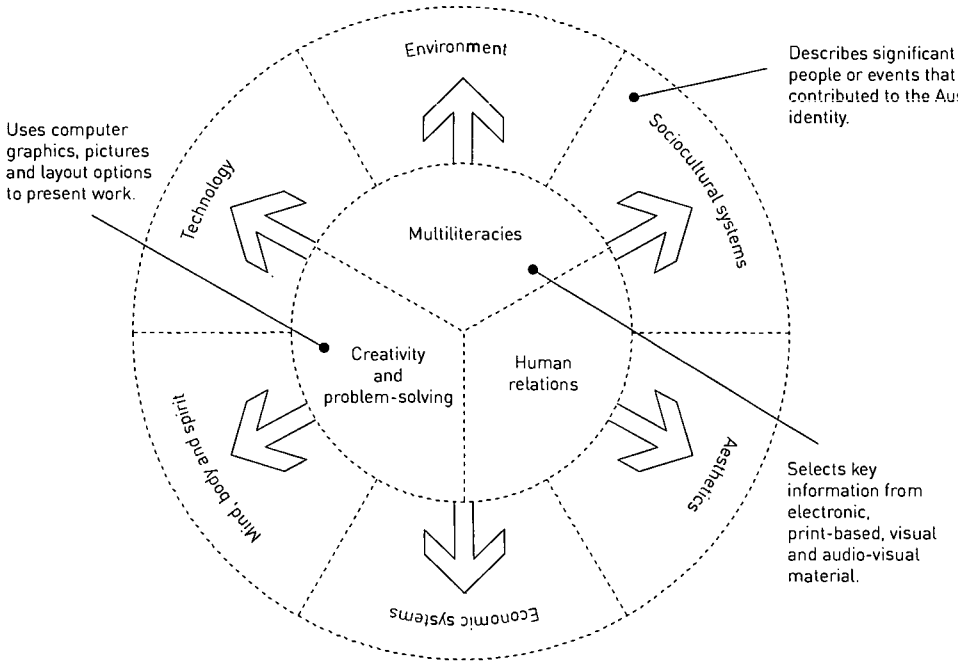
Figure 3.2: The model defined



The dotted lines indicate permeability between elements. In its implementation, this model accounts for most of the curriculum. However, there is scope to make separate provision for some areas that are not adequately covered by the rich projects. Important examples include some mathematical and early-literacy work. Learning within the model is also supplemented and complemented by co-curricular activities such as the sport program, peer support, music etc.

We have devised broad outcomes for each area, represented in such a way that there are unlimited possibilities for interaction between the inner and outer fields when devising projects and activities. Some examples of Stage 3 outcomes are shown over (Fig. 3.3).

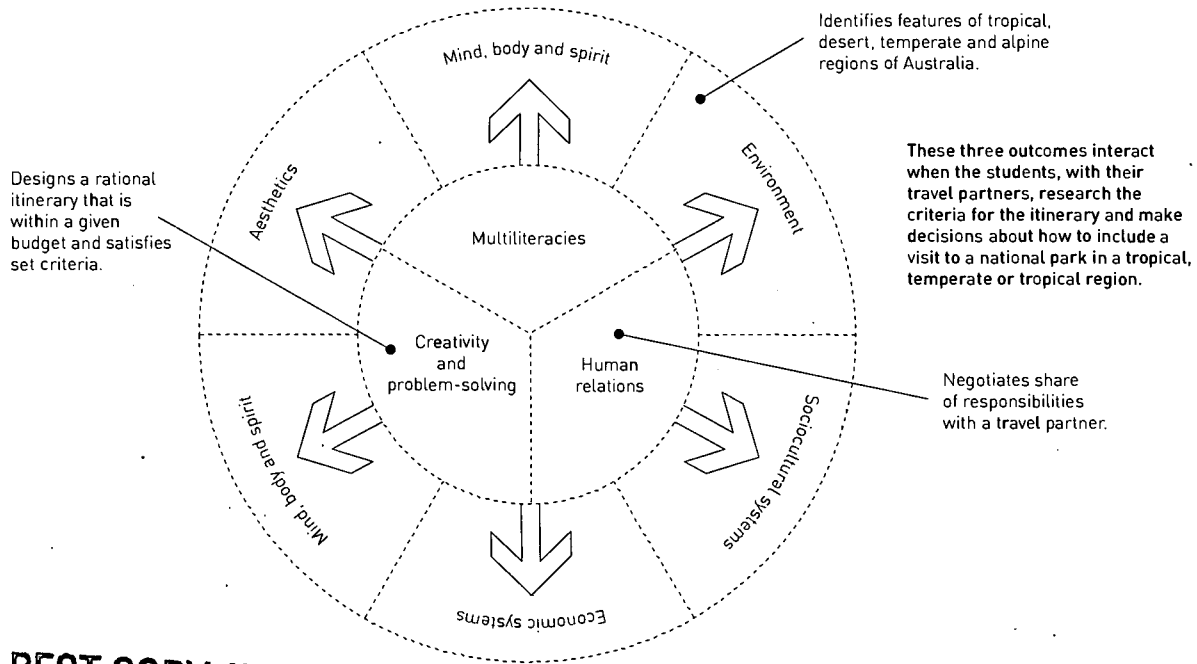
Figure 3.3: Curriculum model with indicative outcomes



Rich projects

Each rich project is a particular manifestation of the general model above; the outcomes within the general model are used to derive outcomes that are specific to the context of the rich project. For example, an aspect of the Stage 3 rich project 'Outback Odyssey' moves students towards the following outcomes (Fig. 3.4).

Figure 3.4: Rich project with indicative outcomes



An emphasis on selected fields in the outer ring is used to give a certain accent to particular projects. These fields are given a balanced treatment across the eight projects for each stage.

Why do rich projects?

Rich projects have a problem focus that has real-life relevance. The problem can be resolved only by combining the many forms of learning that are built into the task. The problem is open-ended and can be solved by pursuing any of a large number of possible learning pathways. The problem requires resourceful location, application and presentation of information and learning. There *are* guides, frameworks and criteria, and timely and strategic teacher support is always available, but there are no prescriptive directions, enabling a high degree of choice and responsibility for learning.

Students who do rich projects learn to mange their time and develop organisational skills. They learn the relative value of information sources in relation to the task at hand, and learn a wide variety of ways to present their work.

Even though the projects are carefully designed to lead to certain understandings, these understandings are a complex amalgam of the various learning-area disciplines and there is no conscious mapping of this combination. Learning becomes a means to an end (solving the problem) rather than and end in itself.

Rich projects are not just a new manifestation of the 'integrated unit' approach because of their focus on problems rather than themes. Thus, instead of an emphasis on content, there is an emphasis on skills, processes and strategies.

Literacy and the rich-project curriculum

The rich-project medium embodies major changes in the way we conceptualise, program, implement, monitor, assess and report learning. As noted previously, the approach emphasises processes, and the most pervasive of these is 'multiliteracies' — that set of capabilities required by twenty-first century students to locate, access, interpret, synthesise and present information and knowledge.

Multiliteracies underpin a student's engagement with the curriculum. All literacies require 'reading' and 'writing' in some way. 'Reading' may be interpretation of the written word, navigation of a website, or interpreting the body movements of a dance. 'Writing' may be handwriting a story or an exposition, preparing a *PowerPoint* presentation or visually representing a setting in a novel. All of these literacies are facilitated through the rich project.

However, we do recognise that, especially in the primary school, print literacy and numeracy remain core concerns. We also recognise that not all of the skill development in these two areas can take place within the rich-project context. So, depending on the requirements of each stage, the structure of the projects varies, and some separate

provision is made as necessary. The ultimate goal in the upper-primary years is for the students to be skilled, self-directed and independent learners. Stages 1 and 2 provide the scaffolding towards this goal.

Print literacy is generally addressed in three ways in our learning environments:

A Outside the rich project

B Through intensive teaching within the rich-project context

C Through independent and applied learning within the rich-project context.

Within-project activities are mostly located in a Bloom/Gardner-styled matrix, which provides levelling and differentiation of learning. Intensive-teaching activities may be signified on the matrix using a code to indicate that they are core activities (for all students). Independent and applied learning activities consist of options that students choose according to their ability and learning styles. These levels are negotiated with the teacher. There is flexibility in the design of the matrix so that teachers can alter the balance of core/independent activities depending on the circumstances and needs of the group. For example, early in the school year a Stage 1 class may have difficulty coping with a large number of independent-learning activities. The teacher may choose to make more of the matrix activities core — leaving some, however, for those who are capable of engaging in independent learning. If the same project were undertaken in Term 4, the core/optional balance may shift towards the independent-learning activities.

The following rich-project examples are provided to indicate the changing mix of print-literacy approaches at each stage.

Example 1: Stage 1 – The 24-hour Munchy-Crunchy Café

In the course of this project, students prepare breakfast, lunch, dinner, international and celebration menus for the café. The planning and implementation of two 'taste events' are included: Multicultural Munchy Monday and the grand opening celebration. The project covers aspects of healthy eating, the origins of foods, the part food plays in cultures etc.

Outside the project	Within the project	
	Intensive teaching	**Independent & applied learning**
In-class guided-reading program with wide-ranging content and levels of difficulty Sound/Phonics work with individualised modification where appropriate Home-reading program Handwriting skill sessions Incidental writing, e.g. Father's Day, visit by musical band, memorial assembly, excursion to the symphony orchestra etc.	Stories and story-based activities, e.g. *The Lighthouse Keeper's Lunch* (Armitage, 1977); *Let's Eat* (Zamorano, 1996) and *The Very Hungry Caterpillar* (Carle, 1970) Food word bank for writing and completing activities Writing: focus genres — procedure, invitations	Independent reading from class or school library Reading and interpretation of activity instructions Location of information from Internet, recipe books etc. Applying literacy skills to record research findings, write clues for guessing game, sequence events in a story Have-a-go genres: riddles, poems, skipping rhymes, recipes, advertisements, narrative, job applications, explanations

A section of the activity matrix (showing the core and 'sidedish' experiences for a high-ability student) is shown as Appendix 3.1. A student at this level is required to complete one knowledge, two comprehension, three application, three analysis, two synthesis and one evaluation 'sidedish' activity. We usually work on four ability levels, but the project design allows easily for further modification for students whose needs may indicate that they should be working below or above these levels. Core activities are shown in bold.

Example 2: Stage 2 – Go, Go, Gadget

While core activities remain compulsory at this stage, the teaching required for them may be done on a needs basis — as a class, in a small group, or one-to-one — rather than as a matter of course. The following example is drawn from a project called 'Go, Go, Gadget'.

In this project, the students were asked to identify a problem and to design, create and develop an invention that would present a solution to that problem. The core of the project consists of nine steps: defining the problem; researching existing solutions; designing an invention with a meaningful purpose; making a working prototype; testing; refining; planning manufacture; preparing a marketing plan; and holding a public expo of the invention. In addition there is a substantial bank of activities — the 'toolbox' — which are located on a matrix that allows for differentiation of learning.

Outside the project	**Within the project**	
	Intensive teaching	**Independent & applied learning**
Home-reading program Handwriting skill sessions Word-family spelling	Focus genres: procedure (instruction manual), narrative, report, explanation, exposition Class story, e.g. *George's Marvellous Medicine* (Dahl, 1981) Spelling related to project	Personal spelling words Library-reading according to level requirements specified in project (e.g. Level 3 tasks require reading of six books with representation from each of the following categories: picture books, short chapter books, novels, information books) Reading and interpreting activity instructions Locating, accessing and presenting information — research reports, procedures, personal response, description Have-a-go genres: comparative study; newspaper article; advertisements; dialogue Other: making up words to describe inventions, labelling diagrams, creating flow charts, posters, short dramatic script

A section of the activity matrix for 'Go, Go, Gadget' (showing the core and optional experiences for a moderate-ability, or Level 3, student) is shown as Appendix 3.2. Core activities are shown in bold. A Level 3 student is required to complete four content, five divergent, five critical and five creative activities. A Level 1, 2 or 3 student who completes his/her activity requirements could move easily on to the next level simply by adding to the activities already completed.

Example 3: Stage 3 – Outback Odyssey

In this project, students were required to plan and implement a virtual trip around Australia using an open-ended set of criteria and a given budget. Thus, for example, the students planning to take the *Spirit of Tasmania* to Tasmania had to show real costs and real schedule times in their journals. Even if the students were away sick, they were put into 'hospital', with appropriate costs built in. The criteria were designed so that, at a minimum, students would 'experience' a representative cross-section of Australian history, geography and cultural heritage. The 'trip' was done in real time (six weeks), and the core of the task included maintaining a daily travel journal that reflected the experiences of being in various places around Australia and dossiers on places visited. In addition, the students (according to negotiated levels) selected a series of activities – 'sidetrips' – which added depth and breadth to their project.

Outside the project	Within the project	
	Intensive teaching	**Independent & applied learning**
Word-family spelling	All genres as required: journal, research report, letter, description, exposition, personal response to literature, poetry, interview, debate, advertisement, poster, scientific report, procedure Spelling related to project Class story — Australian literature, e.g. *Five Times Dizzy* (Wheatley, 1982)	Personal spelling words related to project Library-reading according to level requirements specified in rich project (All students were required to read a range of Australian material — picture books, novels and non-fiction books, with particular specifications for each level) Reading and interpreting activity instructions Locating, accessing and presenting knowledge, information and personal responses Applying literacy skills to a wide variety of written and oral genres (as identified under 'Intensive teaching'. Some students required tutoring in these genres; others were able to tackle the activities independently)

The criteria given to students at the beginning of 'Outback Odyssey' are shown as Appendix 3.3. A section of the activity matrix is shown as Appendix 3.4. (Core activities are shown in bold.) Appendix 3.5 provides a sample of the nature of some of the matrix activities. As for Stage 2, core activities are compulsory, but the teaching required for them is done on a needs basis. As the levels at which the students work increase, the more higher-order thinking activities they must undertake.

Monitoring, assessing and reporting

For each project, students are carefully monitored and assessed. The activity matrices are used to 'sign off' completed activities and, in Stages 2 and 3, students are provided with a schedule for the term, including all core activities and other requirements, so that progress across the term can be monitored. An assessment rubric, derived from the outcomes of the project, is used to assess and report, and there is usually some form of public exhibition of work upon completion of the project, sometimes in front of a panel. The students prepare for these displays using a detailed protocol.

Documentation

Because of their nature as the main vehicles of curriculum and their complexity, each project has a substantial amount of documentation. This includes:

- an executive summary
- outcomes
- a matrix indicating the relationship between the fundamental learnings and the 'old' key learning areas
- a matrix indicating the relationship between the fundamental learnings and the productive pedagogies (see Chapter 4 for more detail on these attributes of effective teaching)
- procedures
- information pertaining to requirements for each working level
- a matrix locating the core and enrichment activities
- tracking and monitoring sheets
- an assessment rubric
- explanations of the core and enrichment activities
- work-exhibition protocols (if applicable)
- any other notes or sheets required according to the nature of the project.

Programming for print literacy

Rich projects are constantly adapted, revised and replaced as necessary. The structure of the tasks over the stages is gradually modified so that students are trained from an early age to take responsibility for their own learning. The Kindergarten teachers begin this process by teaching students the fundamentals of work — following instructions, working in groups, following group rotations etc. — so that some independent learning can be introduced in Stage 1. The projects are also designed to ensure that basic skill development in literacy takes place.

A teacher using an existing rich project will program for literacy learning by:

- determining what needs to be done outside the project
- determining which activities with a literacy focus need to be core, and which will remain optional
- adding extra activities into the matrix (either core or enrichment activities)
- changing the levelled reading requirements to modify the number of titles to be read and/or the mix of the reading genres (at Stage 2 or 3).

A teacher involved in constructing a new rich project will plan for literacy learning by:

- choosing texts/genres that blend well with the focus of the project. For example, 'Outback Odyssey' immediately suggested Australian literature; 'Hip, Happy and Healthy' (Stage 3)

— which focused on the physical, mental and nutritional health of each student — suggested biography and autobiography; 'The 24-Hour Crunchy-Munchy Café' suggested multi-modal texts relating to food, cultural practices involving food etc.

- identifying the Multiliteracies outcomes for the particular stage and determining what explicit teaching needs to occur outside and inside the project, and what tasks could be undertaken optionally
- making arrangements with the library so that the librarian is aware of the literature needs of the students doing the project.

Classroom organisation

Classroom organisation and timetabling to accommodate the rich projects varies according to stage. In a Stage 1 classroom, where more is done outside the project, a certain part of the day may be set aside for rich-project work. The activities and their accompanying instructions, along with any resources required, are carefully categorised and made accessible — even colour-coded — to scaffold students towards independent learning practices. Stage 1 classes often roster parents to help, as they do for reading or numeracy activities, to provide students with further support for the rich-project task.

In Stage 2 and 3 classrooms, where more and more work is done within the rich project, most of the day will be spent on the project itself. Once non-negotiable timetabled items are locked in (library and music lessons, school sport etc.), Stage 3 students are encouraged to set their own goals for the day and week, and to timetable their own day. The students can move freely from classroom to library and resource centre as the requirements of their program dictate. We have been able to do this because the high engagement in learning has significantly dissipated student management problems. Monitoring sheets ensure that teachers are always informed of where the students are.

Because of the nature of rich projects, teachers must have all elements of the project and the necessary resources ready before commencement. However, once this is done, the projects (especially in the upper-primary years) 'run themselves', with the teacher offering contingent support to individuals or small groups. Needless to say, our days have become simplified, and we enjoy quite a different relationship with the students, one which is more relaxed and collegial.

Putting rich projects into practice

For those who are thinking of giving this exciting approach to education a go, there are some things to consider.

We had the benefit of six years of becoming accustomed to multi-age classes and independent learning programs. This enabled us to gain the confidence to 'let go' to a certain extent, and to trust the students to take some responsibility for their own learning. This is *not* an abdication of teacher responsibility. Indeed, the support of student

independence *is* a teacher's responsibility — otherwise students will flounder when a teacher is not around to direct them. Students in the twenty-first century will be on steep learning curves all their lives, and they need the skills to cope with this reality. As long as the learning environment is carefully set up so that *all* the learning choices that students make are good ones, there is no danger that students will be 'abandoned'.

Secondly, it has been our experience that parents will need constant reassurance, especially where the 'three Rs' are concerned. You need to be able to show them that your students are doing everything that *they* did at school, and more — but in a different and more exciting way. It is a matter of demonstrating the advantages of the approach over the 'old' (see panel).

The advantages of a rich-project curriculum

- The nature of rich projects means that the students 'live and breathe' them nearly all day, every day. Project work becomes a way of life for them. This results in deep and enduring learning, or what have been called 'transformational outcomes' (Spady, 1993). As a teacher of 30 years, I used to despair when, year to year, students would forget basic geographical information about Australia. After 'Outback Odyssey', by contrast, each and every student could not only provide this information but all sorts of other detail about places in Australia — how long it takes to get to places, the best places to visit and stay etc. This included a boy from a Korean family, who did not even realise Western Australia existed when the project began.
- From an early age, students learn how to organise themselves and their work. They quickly become aware of their strengths and weaknesses, and come up with strategies to address them. Reflection is always a large part of what we do, and the students learn to articulate what they have to do to improve their work skills.
- The construction of the projects ensures that basic skill development takes place, either within or outside the project. However, this learning takes place in a real-life context. Because the emphasis is on purposeful literacy, rather than literacy as an end in itself, the outcomes are improved. As long as the project documentation can show where the elements of literacy learning are, parents can be reassured.
- Student engagement is significantly improved because students have considerable control over their own learning within a carefully engineered framework. We have noted, particularly amongst our senior students, that many of the difficulties common in the senior years have not eventuated since we have been taking this approach.
- High-school teachers report that our students are confident and relaxed about high school — that they are articulate and excellent risk-takers in learning. They cope well with demanding workloads.
- Students learn to be adults by rehearsing and 'practising' adult scenarios. Our students are practising real-world living by doing projects that have relevance beyond the school gate. They are not doing exercises that are insulated from life as it is lived in their families, their communities and beyond.
- Staff are invigorated by the engagement of the students in their learning and the excitement engendered by the possibilities of the real-life emphasis.
- Information and communication technology, the phenomenon which will largely govern the lives of our students, is a natural and fundamental part of rich-project work.

The requirements of rich projects create a natural momentum that facilitates the learning of ICT skills.

- Days at school have become simpler and less rushed. Students are allowed time to work on and finish things. The projects are demanding and the students are assisted by 'simpler' days.

As with anything that departs from conventional practice, we have had to, and probably still will, cope with scepticism and opposition. We have come a long way. We have worked hard to move forward as a staff, and to keep our parent community informed and educated. We have been scrupulous in providing detailed information about the students' progress and, as we embark on each new project, we prepare parents in advance with information on outcomes and procedures. This has meant some hard work on our part, but the professional rewards from what we are doing far outweigh these demands.

References and sources

Armitage, R (1977) *The Lighthouse Keeper's Lunch*. Puffin, Harmondsworth, UK.

Carle, E (1970) *The Very Hungry Caterpillar*. Puffin, Harmondsworth, UK.

Dahl, R (1981) *George's Marvellous Medicine*. Jonathan Cape, London.

Spady, W G (1993) *Outcome-based Education*. Australian Curriculum Studies Association, Canberra.

Wheatley, N (1982) *Five Times Dizzy*. Hodder & Stoughton, Sydney.

Zamorano, A (1996) *Let's Eat*. Omnibus Books, Adelaide.

About the authors

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Anne-Marie Marek has had 25 years' teaching experience in primary schools. She is currently Assistant Principal at Sts Peter and Paul Primary School, Garran, ACT. Over the past four years she has been part of the movement to develop individualised, multi-level learning programs in the school. She is now part of a team that is blending these developments with the new approaches to curriculum organisation outlined in this chapter.

Appendix 3.1: Core and optional activities for a Level 4 (high-ability) student undertaking a Stage 1 rich project. The sheet plots activities against learning domains (first row) and a hierarchy of thinking processes (first column), where K = knowledge, C = comprehension, Ap = application, An = analysis, S = synthesis, E = evaluation.

The 24-hour Munchy-Crunchy Café

Activity matrix and tracking sheet

	Word	Logic/Maths	Space/Vision	Body	Music	People	Self
K (1)		Attenborough files	Riddle maker	Secret life of foods researcher **Family favourites** World records	Singer	**Let's celebrate** **Photo album**	Yuks and yummies
C (1)	Alphabetter A–Z		Transformer **Where is it?**	**Matcher** Investigating grains		**Finger food**	**Party helper**
Ap (3)	Lumpy green custard Mobile maker	**Classifier** **Super shopper** **Web shopper** **Chef**	**Big breakfast menu designer** **Long lunch menu designer** Modeller	**Surveyor** Advertiser **Shared lunch** **Publicity manager**			Build a sundae game
An (3)	Sentencing	**The secret life of foods** **Pet sprout farmer**	**Pop-up invitation** You are what you eat			**Who can help us?**	
S (2)	The Loony Lunch Monster Story Grizzles and Groems		Funky words Picture story maker	Surprise boxes Job application	Skippy		
E (1)	Riddler judge	**Rankings and ratings** The truth about cereals				Social problem solver	

Core class activities are in **BOLD**. 'Sidedish' activities are in standard font.

Appendix 3.2: Core and optional activities for a Level 3 (moderate-ability) student undertaking a Stage 2 rich project. The sheet plots activities against ways of learning (first row) and a hierarchy of thinking processes (first column).

Go, Go, Gadget

The toolbox

	Reading, writing, speaking	**Making, doing**	**Feeling**	**Visualising**
Content (Select 4)	Who am I? Whizkids Hot spot Timeline Limerick **Great improvements** Flow chart Clever locals Reporter	Thingamajig Flying machines Balloon rockets PowerPoint **Remember the inventor** Insides	**How do you feel?** **Wow, it works!** What we value	Quality Hot seat
Divergent (Select 5)	The big 10 **Not without my ...** Headlines Who's who Concoctions Differences	3D sculpture Ping pong Graphic designer Advertiser Inventive times Teacher's aide	**Freedom of choice** Job ad Step in their shoes Qualities	Changes The tools we use
Critical (Select 5)	**Important inventions** Quotable **How it works** Judgement day	The flow Wallace and Gromit Making better Roadrunner	Everyday Influences A good time A matter of importance	Difficult project
Creative (Select 5)	Paper bag **The dummy guide** **Back to the future** Onomatopoeia Collage	**Build a bridge** New toy Lego Technics Sketches Groovy Future house Super machine	**People power**	Designer Catalogue combination You are there

Core class activities are in **BOLD**. Optional activities are in standard font.

Appendix 3.3: The project criteria initially provided to Stage 3 students undertaking the rich project 'Outback Odyssey'.

Outback Odyssey

Basic criteria and initial checklist

You may take your trip alone or with one friend.

You must start and end in Canberra.

You have the first two weeks to plan and set up, then six weeks to complete the trip.

You have a budget of $1750 per week, and an emergency fund of $1000. Fuel cost for the trip is set at 90c per litre. You can book your accommodation and travel ahead of time, or as you go.

You are travelling at this time of year.

You must visit every Australian state and territory.

You must paddle or swim in two separate seas or oceans.

You must visit an alpine region, a desert region and a tropical region.

You must visit one national park in a tropical region and one in a temperate or alpine region.

You must visit an environmentally degraded area.

You must visit an area where there is an endangered species of flora or fauna.

You must visit six natural tourist attractions.

You must visit a town associated with an Australian author or artist.

You must visit a very small town, a medium-sized town and a city.

You must visit a town of particular historical significance.

You must visit an 'industry' town or areas (e.g. a mining town, wine-growing area etc.).

You must visit a place of importance to indigenous Australians.

You must visit a place that is significant to another cultural group.

You must take rest days — travel for three and rest for one OR travel for five and rest for two — so that you can complete your compulsory activities and perhaps some of your sidetrips.

You must do the compulsory activities.

Sidetrips must be relevant to the place in which you are located.

If you are working with a travel companion, you must BOTH produce the pieces of work.

Remember: any one place may satisfy more than one criterion. For example, a particular town may be medium-sized, may have some historical significance and may be an industry town.

Outback Odyssey Activity matrix

Appendix 3.4: Core and optional activities for a student undertaking a Stage 3 rich project. The sheet plots activities against domains of inquiry (first row) and a hierarchy of thinking processes (first column).

	Word	Science, maths, logic	Space, vision	Body	Music	People	Self
K	**Hot facts files** Researcher Big things Poet	World records Attenborough files	**Literary database** Weaver	Aussie sports heroes		Rocking the suburbs Stamp your mark	Researcher Excuse me!
C	Culture hunter Descriptor Predictor	Hot facts files	Vital signs Timeline Advertiser	Culture hunter Surprised chef	Culture hunter Sound technician	Culture hunter	Birthday
Ap	Correspondent **One pager**	Calculator	Transformer Artist profile Surveyor Puzzler	Photo album	Dancer	Cultural fashion Archie	

	Word	Science, maths, logic	Space, vision	Body	Music	People	Self
An	Report writer A–Z **Author study** Character study Anywhere, anytime	Scientist	Artist Ecologist Kaleidoscope BIG designer	**Safety first** Viewer			Good mates
S	Poet Interviewer Travel diary		DVD designer	Dramatic landscape	Songwriter		Web of feelings **Travel diary**
E	You be the judge Advocate **What is Australian?** Book grabber	Graphic ratings	Story web Rankings and ratings			Keeping in touch	

Compulsory activities appear in **BOLD**. Sidetrip activities are in standard font.
You will do five science tutorials.

Appendix 3.5: A sample drawn from the activity notes handed to students who undertake the Stage 3 rich project 'Outback Odyssey'.

Compulsory activities

Cartographer

As part of your planning process, you have to mark your proposed itinerary. After that you have to plot and date your progress and any changes that you make. A good copy will be prepared at the end of the trip for exhibition.

Hot facts files

are completed to give basic information on each place visited and will include:
- state/territory in which the place is located
- if it is a capital city: the state/territory flag, floral emblem, population, current government and its leader
- special features and points of interest of the place/area
- weather report
- headline of a newspaper from the area.

Safety first

Once you have planned where you are going, you will need to make up a first-aid kit — literally! You will not require any major medical treatment. You will start the trip alive and return in the same condition.

Science tutorials

There will be a series of science tutorials organised by University of Canberra students. You are required to participate in five of these.

Sidetrip activities

Knowledge: Word

Big things

Find the location of five 'big things' from around Australia, and locate them on your map. (Examples include the Big Banana and Big Merino.)

Knowledge: Science, maths, logic

Attenborough files

Compile a dossier of three flora and three fauna species in the area. Add illustrations where appropriate.

Comprehension: Space, vision

Vital signs

Describe some warning signs for dangers that my be in the area you are visiting. (Examples include crocodiles, disused mine shafts.)

Comprehension: Music

Sound technician

Record the sounds of the outback, a rainforest etc. (You may be able to find examples on nature and relaxation CDs.) If you are visiting a city or rural town, you could record the sounds that are associated with these places.

Application: Space, vision

Surveyor

Construct a 3D representation of the place you are visiting.

Application: Body

Photo album

Take photos of yourself at each stop on your trip, wearing appropriate clothes and perhaps holding things that might indicate what you plan to do there. Compile these in a photo album with captions that indicate date, place and activity.

Analysis: Word

Report writer

Write a scientific report on an Australian animal or plant. Refer to the headings and format provided.

Analysis: Space, vision

Kaleidoscope

Using the template 'Kaleidoscope of characters', add all of the characters in the novel you are reading. Use pictures and words.

Synthesis: Word

Poet

Write your own poem describing your feelings for a special place you have visited. It does not have to rhyme, but it must convey your feelings using your five senses.

Synthesis: Space, vision

DVD designer

The novel that you are reading has been made into a film. Design a DVD cover for the film.

Evaluation: Word

You be the judge

Use the Eve Pownall Award for Information Books sheet and complete the table using information books that you have borrowed. Decide on one winner and two honour books. Using the sheet 'Judging Books', compose your own table of criteria to judge the picture books that you have read.

Evaluation: People

Keeping in touch

Research the Flying Doctor Service or School of the Air. Compare its activities with your own medical or schooling experience.

Making the links:
A whole-school approach to programming

In this chapter, GREG NELSON, ANNA KINNANE and BARBARA BARRETT draw on the experiences of one school in developing an approach to programming that is founded on research in action.

Background

A teaching and learning program describes a journey rather than a place. We see it as an opportunity to support the professional growth of the whole school community. As such, it is a process that requires a shared commitment to the achievement of identified goals, and honest reflection upon our achievements and shortfalls within a culture of continuous improvement.

In this chapter we will provide an overview of our whole-school program, including a detailed description of the school-wide model that we use — inquiry-based, cross-curricular units. 'Productive pedagogies' (Queensland Department of Education, 2001) form an important touchstone for the development of this approach. We will also provide an overview of the ways in which we support change, without which our efforts would wither quickly. A closer look at programming in Year 4 follows — a section that aims to flesh out the possibilities for success by narrowing the focus. We will then

explore briefly the changing and pivotal role of the teacher librarian — a person who, we believe, has enormous potential for supporting schools through a process of curriculum renewal.

Whole-school program: A school overview

The teachers at our school are committed to writing a whole-school curriculum, teaching, assessment and reporting framework. Our students are at the heart of our efforts. A set of guiding characteristics of the school's children (Fig. 4.1) expresses the aspirations we have, as a school community, for our students. These aspirations guide all that we do, both within our explicit programming framework and in day-to-day work.

Figure 4.1: Aspirations of a school community

Our children:
› are optimistic and happy learners
› demonstrate flexibility and trustworthiness in the way that they interact with others
› have a strong sense of self-expression and well developed communication skills
› are confident and socially competent as active members of the community
› work purposefully and with persistence to achieve realistic goals
› are co-operative, considerate and well-adjusted contributors to their own well-being and that of others around them
› show their love of learning and are creative thinkers
› are lifelong learners with the skills and abilities to participate productively in local and global communities.

These aspirations were generated through a year of consultation with staff, students and our parent community, and we are building a synergy of school culture to achieve them. Programming across the school is organised around a common set of elements that help bring together the efforts of students, staff and parents.

Approaches to programming

Inquiry-based, cross-curricular units: A framework for guiding practice

Teachers across the school use a common planning approach to help build a shared language about teaching and learning. This approach continues to evolve through critical reflective practice. We celebrate success but plan to do better. The essential elements of our current approach are outlined opposite (Fig. 4.2).

Figure 4.2: Essential elements of our curriculum, pedagogy, assessment and reporting framework

Explicit expectations for unit planning

- Inquiry base
- Student outcomes drawn from the eight learning areas
- Cross-curricular units integrating learning across multiple learning areas
- Information and communication technologies integrated within the units
- Dimensions of productive pedagogies embedded within planning and practice

Incorporating productive pedagogies as a reference point for programming provides unique and valuable guidance when developing units of work. These pedagogies — features of effective teaching practice — establish a common language for our teachers to share knowledge. The four strands of the productive pedagogies are outlined below (Fig. 4.3).

Figure 4.3: The productive pedagogies

Productive pedagogies

Intellectual quality

Higher-order thinking

Higher-order thinking requires students to manipulate information and ideas to solve problems and discover new meanings and understandings.

Deep knowledge

Knowledge is deep or thick when it concerns the central ideas of a topic or discipline, and because it is judged to be crucial to a topic or discipline.

Deep understanding

Students' understanding of important concepts or issues is deep when they develop relatively complex understandings and demonstrate them by discovering relationships, solving problems, constructing explanations and drawing conclusions.

Substantive conversation

In classes with substantive conversation there is considerable teacher-student and student-student interaction about the ideas of a substantive topic; the interaction is reciprocal, and it promotes coherent shared understanding.

Knowledge seen as problematic

Presenting knowledge as problematic involves an understanding of knowledge as being constructed, and hence subject to political, social and cultural influences and implications.

Metalanguage

High metalanguage instruction has high levels of talk about talk and writing, about how written and spoken texts work, about specific technical vocabulary and words, about how sentences work or don't work, about meaning structures and text structures, and about how discourses and ideologies work in speech and writing.

Connectedness

Connectedness to the world

This element measures the extent to which the lesson has value and meaning beyond the instructional context, exhibiting a connection to the larger social context within which students live.

Problem-based curriculum

A problem-based curriculum is identified by lessons in which students are presented with a specific practical, real or hypothetical problem (or set of problems) to solve.

Knowledge integration

Integrated school knowledge is identifiable when knowledge is connected across subject boundaries, or subject boundaries are absent.

Background knowledge

Lessons with high connection provide explicit links to students' background knowledge. This may include community knowledge, local knowledge, personal experience, media and popular-culture sources.

Recognition of difference

Cultural knowledges

Cultures are valued when more than one cultural group (distinguished by gender, ethnicity, race, religion, economic status, age) is present and given status within the curriculum.

Inclusivity

Inclusivity is identified by the degree to which non-dominant groups are represented in classroom practices by participation.

Narrative

The use of narrative in lessons is identified by an emphasis (both in teaching and in student responses) on structures and forms. These may include the use of personal stories, biographies, historical accounts, literary and cultural texts.

Group identity

This is manifested when differences and group identities are both positively developed and recognised while, at the same time, a sense of community is created. This requires going beyond a simple politics of tolerance.

Active citizenship

Active citizenship is present when the teacher elaborates the rights and responsibilities of groups and individuals in a democratic society and facilitates the practice of these rights and responsibilities.

Explicit criteria

Explicit criteria are identified by frequent, detailed and specific statements about what it is students are to do to achieve. This may involve overall statements regarding tasks or assignments, or about performance at different stages in a learning sequence.

Self-regulation
High student self-regulation is identified by teachers not having to make statements that aim to discipline students' behaviour or to regulate students' bodily movements and dispositions.

Social support

Social control
The degree of student influence on the nature of activities and the way they are implemented.

Student support
Social support is present in classes in which the teacher conveys high expectations for all students. These expectations include the necessity to take risks and try hard to master challenging academic work, that all members of the class can learn important knowledge and skills, and that a climate of mutual respect among all members of the class contributes to achievement by all.

Engagement
Engagement is identified by on-task behaviours that signal a serious investment in class work; these include attentiveness, doing the assigned work, and showing enthusiasm for this work by taking initiative to raise questions, contribute to group tasks and help peers.

The 20 elements of productive pedagogies were articulated as part of *The Queensland School Reform Longitudinal Study* (Queensland Department of Education, 2001). More information about productive pedagogies may be obtained at <http://education.qld.gov.au/tal/pedagogy.html>.

Curriculum structure

Each year level plans co-operatively. Teachers working with the same year level are released from class each term to work with an education adviser. The adviser works across a network of schools to support teachers in developing inquiry-based, cross-curricular units. The framework for the units is common across the schools. It evolved from work undertaken by pilot schools at the start of 2001. All units developed by any of the schools in the network are shared, thus generating a valuable resource for all teachers.

The whole-school program is founded on four broad areas of inquiry to ensure that a wide net of investigations is undertaken each year. These broad areas of inquiry are:

- History and futures
- Environment and matter
- Identity and culture
- Systems.

These broad areas ensure a healthy diversity of unit inquiries.

Building a professional learning community

Success in implementing a whole-school framework requires a parallel commitment to our professional learning community. The features of our school learning community (Fig. 4.4) provide a means for putting aspirations into practice.

Figure 4.4: A professional learning community

Features of our professional learning community
In working to realise the aspirations of our school community, we:
› establish a shared commitment to a better future — refine our goals and make them explicit
› learn from our own practices — reflect on current teaching and learning practices
› learn from others — network, share successes and challenges, work with consultants, tap into online learning
› innovate — take reasonable risks, look to expand teaching repertoires
› communicate — build common languages for conversations about teaching and learning; build depth of curriculum, pedagogic and assessment knowledge
› build teams — plan co-operatively; expand school leadership depth and capacity
› use data for decision-making — make time to generate and analyse key data.

These dimensions of our professional learning community are purposefully championed in the way the school operates day to day. In the same way that classroom planning needs support to be enacted each day, teachers need support to shift ideas into practices. The support needs to become *the way things are done around here.*

Our current focus on the teaching of writing illustrates what we mean by working as a professional learning community. An analysis of data from state-wide tests indicates that, compared with schools that have a similar enrolment profile, we have strengths across a wide range of areas. However, although writing performance compares favourably with similar schools, a comparison with our own data for *reading* reveals areas for improvement. (These data are supported by our teachers' observation of student performance.) A consultant with expertise in the teaching of writing has been working with teachers on an ongoing basis through the year. We expect this work to continue for a further two years. Teachers are released in small groups to work with our writing consultant. The professional learning includes building a common language across the school around the teaching of writing, developing a common assessment tool for Years 3–7, establishing hallmarks for quality writing, and planning co-operatively to 'lift the bar' on students' writing performance.

Our teachers recognise that good literacy practices now focus on more than the reading, writing and spelling of the printed word. They are in the throes of a metamorphosis in their teaching, and need to equip themselves not only in the myriad of multiliteracies facing their students, but in ways to embrace these and integrate them within meaningful classroom practice. Support through this process is pivotal to a successful

transformation of pedagogy. A journey of learning will take our teachers through three phases of professional growth, in which they will:

- gradually build an awareness of new teaching practices for a changing world
- refine these practices by trying an expanded repertoire of pedagogies
- integrate these pedagogies with confidence into day-to-day teaching practice.

Our school is building networks and alliances with other organisations, including schools and universities, to strengthen its access to professional learning opportunities. The rewards include:

- a greater pool of ideas and successful practices to share
- sufficient teacher numbers to broker our own conferences and employ consultants to work between our schools
- opportunities to draw upon a greater pool of expertise between teachers in our schools.

And so we have shown the importance of school culture in literacy programming — the big picture that expresses our hope for the future. We will now pick out a detail of that picture — a unit that provides a context for learning for all of our teachers, as well as the students in Year 4.

Transport transported: A sample program

Planning for literacy in Year 4

This section describes a process for literacy planning within the broader context of inquiry-based, cross-curricular units in Year 4. It is in itself a developmental process — a context for our own professional learning.

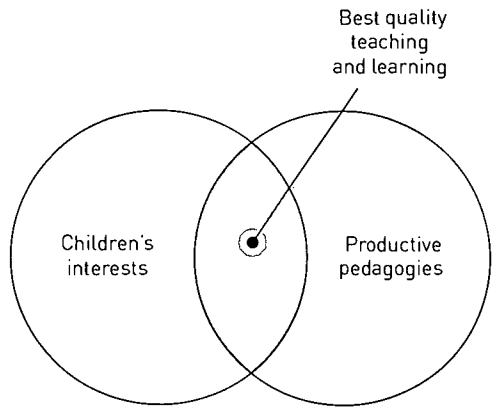
The model

Our units evolve as collaborative ventures, combining the efforts of the classroom teachers, the teacher librarian, an outcomes-based education adviser and a literacy adviser. The challenge for all involved is to find effective pedagogical approaches that ensure that student learning is meaningful and intellectually challenging.

The productive pedagogies, described earlier, create a focus for classroom practices, leading to better student outcomes. When planning for specific units of work, we purposefully generate activities that promote higher-order thinking and critical analysis. For example, we encourage our students to ask questions, to generalise, to form and explain their own conclusions and interpretations. We plan for active student involvement in the learning process. This constructivist approach to learning supports motivated and interested learners (Yager, 1991).

We intentionally develop learning experiences that connect with our students' backgrounds and existing knowledge, often drawing upon community knowledge (see Nelson, 2001). By creating learning environments that are exciting and interesting, we motivate our students towards self-disciplined inquiry. The activities need to resemble or connect with real-life contexts. We generate a range of ideas and strategies that will stimulate the age group of our students and hook into the types of things that they find interesting. Our considerations include their preferences for television programs, music, cartoons, books, films and hobbies. This approach (Fig. 4.5) respects and legitimates children's world of interests beyond schooling.

Figure 4.5: A teaching–learning model integrating children's interests and productive pedagogies



This model illustrates two fundamentals of effective teaching and learning. First, 'interest' is an important element of effective teaching, and second, it is not enough. The shaded area is where 'children's interests' intersect with productive pedagogies. Prior to adopting this model, we had planned around themes. The shift is fundamental — the integration is still there, but the focus centres on *genuine inquiry*.

One of the new challenges is the integration of information and communication technologies (ICTs). We want to ensure that ICTs are used and explored in ways that are more than *ad hoc*. We pay particular attention to the ways in which the Year 4 students use available technologies, so that the ICT tasks are relevant and engaging.

Questions that guide planning

When planning for specific learning experiences within each unit of work, we find the following procedure simple but effective. Initially, we ask ourselves some very general questions that guide subsequent unit organisation.

- What are the learning experiences we need to lift students' literacy skills?
- How can we make these experiences relevant to our diverse range of students?
- How are we challenging our students to maximise their learning?

Our considerations include the students' age, linguistic strengths and needs, home experiences and, importantly, their interests. This approach leads into negotiation of curriculum for learning: what is exciting and interesting for teachers may not interest our students.

- How can we place these learning experiences in context?
- What do students already know, and what is to be learnt?
- How can we help students to make explicit links between what they already know and what they are learning?
- What are the day-to-day teaching strategies that align the unit inquiry with effective teaching?
- How will students become social constructors of knowledge?
- How can we challenge students intellectually?

The 20 elements of the productive pedagogies (see Fig. 4.3) provide a useful framework for guided professional conversation. We have a common language around which to build quality inquiries. For example, can we articulate actual strategies that will challenge the students intellectually? Can we explain the range of strategies that engage students in higher-order thinking, draw students into investigations of substance, develop capacities for critical thinking, and incorporate a shared metalanguage about effective communication and self-expression?

Our unit planning is founded on these *guided professional conversations*. The following steps outline the planning process we undertake when we develop cross-curricular units. The reality is a freer, less linear flow between the steps.

Unit programming: Step by step

Step 1

Select the learning outcomes at an appropriate level.

For example, we are teaching students in Year 4; therefore we refer to learning-area documents at the appropriate level. The inquiry-based, cross-curricular units naturally draw on outcomes from multiple learning areas.

Step 2

Choose an inquiry to drive the unit organisation.

This crucial stage links the identified student learning outcomes with children's interests. We aim to build connectedness to the students' worlds beyond the school gate. Therefore we draw on students' background knowledge to set departure points for substantive inquiry. The best inquiry is found in a space that excites children and is useful for their current and future lives.

Step 3

Design a challenging culminating activity.

This should connect school to the world beyond while embedding the productive pedagogies as fundamental strategies for success. Once an inquiry question is developed, the focus shifts to planning specific learning experiences. Once again, the productive pedagogies provide a useful guide. 'Back-mapping' is a useful exercise here:

- What capacities and knowledge do students need in order to complete the culminating activity successfully?
- How can students be engaged in substantive conversations to develop these outcomes?

Reading, writing and speaking activities are linked to successful completion of the culminating activity. The culminating activity influences the types of reading resources chosen, the comprehension activities selected, the writing tasks undertaken, and the text types explored. One of the strengths of working within a whole-school framework is that there is a strategic diversity in the inquiries undertaken over the seven years in which students attend the school. A sample of Year 4 units is included below (Fig. 4.6).

Figure 4.6: A sample selection of Year 4 inquiry units showing culminating activities and opportunities to develop knowledge and application of information and communication technologies

Unit topic / Inquiry question	Culminating activity	Integration of ICTs
Transport How do the developments in all forms of transport impact on our everyday lives?	Written information report within a picture story book – *Lambert's Adventures: A Picture Story Book about Transport* – written for Year 2 students	Use of interactive website, *QT Kids* Further development of word-processing skills to enable students to process images and text for the picture story book. Formal lessons on Internet use for research purposes (locating relevant information) Development of digital-camera skills to photograph Lambert the Lamb using various transport modes
Local area study How has our local area changed to meet the needs of the community?	*PowerPoint* presentation – *My Local Area* – as an information service at the local library	*PowerPoint* presentation of local area study – each student creating five slides depicting an aspect of the local area. Skill development: creating a slide show for a real audience (creating backgrounds and effects, inserting clip art, inserting images from the Internet, inserting images from the digital camera, positioning text) Use of the *My Brisbane* website Developing skills and understandings in sending and receiving email (corresponding with students from Windera Primary School to compare local areas)

Personal health plan What processes are involved in setting and achieving personal goals?	1. Written biography collated as a class book 2. Personal health plan used by students to monitor and develop their own health status	Using email to contact athletes competing in the Commonwealth Games Using the official Commonwealth Games website to research information for written biographies Formal lessons in *Inspiration 6* research software
Heroes and villains In what ways do the heroes and villains in fiction and non-fiction texts differ in their codes of behaviour, identities, social rules and laws?	Class plays (e.g. *Snow White and the Dreadful Dwarfs*) written and performed for parents and other students	Using *HyperStudio* software to create animation for narratives Using the Internet to locate information relating to selected heroes and villains Formal lessons in using *Encarta* software as a research tool

The culminating activities for each inquiry seek to bridge a genuine purpose for the class activities with a hook to motivate student interest in learning. For example, an inquiry into the impact of transport is relevant to the current and future lives of students. However, linking the inquiry to the photo essays and travelogue about Lambert, a travelling lamb, generates and sustains students' engagement.

Step 4

Select appropriate learning experiences with cross-curricular links.

We refer to the productive pedagogies when generating learning experiences. The challenge here is to motivate our students for the duration of the unit by creating *an unexpected and novel angle* (see panel).

Transforming a unit on transport

The inquiry into the impact of transport developments links with the productive pedagogies framework in many ways. Students use higher-order thinking to compare modes of transport and to assess their impacts. Over the course of a term, they build a deep knowledge not only of various forms of transport, but also of various information and communication technologies and their attendant metalanguage. Assumptions about the value of car transport are challenged, and students' knowledge develops around a sophisticated layering of perspectives about the pros and cons of different modes of transport.

Students bring their personal knowledge and experience to the unit by using the school digital camera to photograph Lambert the Lamb, a cute soft toy, travelling about the city on weekends. This photographic material is used as a resource for their multi-authored book *Lambert's Adventures*.

Possible learning experiences

- Read letters from Lambert to the class that describe his past adventures (providing the model for students' own contributions to the book).
- Generate a class display board of personal travel photos.

- Weave a role for Lambert into many of the unit activities, e.g. Lambert could travel with the class on excursions.
- Encourage students' families to take Lambert on adventures further afield, possibly abroad.
- Encourage students to write letters from Lambert to the class to describe his weekend adventures. Make a special place for these letters and photos of Lambert in action.
- Use stimulus photos to help students imagine Lambert the Time Traveller (extending the travel inquiry into other times and cultures).
- Broaden the idea of Lambert as a book character to explore other media such as puppetry, animation, multimedia.
- Link up with children from other places around the world. Send Lambert on holidays to other locations and keep in touch via email reports from children in other countries.

Step 5

Design assessment that focuses on quality teaching and learning.

When unit design is relatively stable, teachers feel confident that the time devoted to generating quality assessment tools can be refined and used again in future years. Appendix 4.1 provides an example of an assessment tool we are beginning to use for writing across Years 3–7. Each term, every student has a piece of writing assessed using this assessment tool. The data are used to make decisions about the future needs of individual students and specific classes, and to set school priorities.

By using common assessment tools across the school, we draw on advantages of moderation for student reporting, and open professional conversations about our individual and school-wide teaching practices and priorities.

Step 6

Evaluate the unit.

Unit evaluation involves the same team that developed the unit. All units are published across the school, enabling open analysis that might suggest priorities for professional development and resource acquisition. For example, unit analysis might indicate that a dimension of the productive pedagogies is not well catered for in the whole-school plan; this becomes a priority for future school action.

Programming role in focus:
The teacher librarian

Programming literacy-rich learning for large numbers of students ranging in age from 5 to 12 becomes very complex when learning is to be integrated, effective, well resourced and serving the interests and needs of individuals. Co-operative planning, teaching and

evaluation is still at the heart of the teacher librarian's role, but the evolution of curriculum delivery through inquiry-based, integrated units adds layers of complexity:

- How is the entire process to be co-ordinated and monitored?
- Which personnel will be needed to ensure that outcomes are met and a well-balanced whole-school curriculum is developed?
- How is planning across year levels made effective?
- How are multiliteracies to be integrated effectively into meaningful programs?

Many schools are turning to their teacher librarians to respond to these questions. Others are forming the additional position of 'curriculum coordinator' (a designation that, sadly, has led some schools to denigrate the teacher librarian position). Teacher librarians can find themselves in a unique and vital role. They plan and work with all members of the school community, thus being an important voice in the sharing of ideas. They are able to view the students and the curriculum as a whole, and observe gaps and imbalances in the school program. They see what resources are being used, and by whom, and are able to ensure that the curriculum is well resourced. They are well placed to take on leadership roles that build curriculum coherence through the school.

A changing role for the teacher librarian

Many teacher librarians view themselves as change agents. It is therefore likely that they will elect to be involved in the co-ordination, planning and resourcing processes. The role can be pivotal — from supporting a healthy school culture, through to modelling successful literacy strategies for teachers, to co-operatively planning and implementing school-wide curriculum reforms.

At its best, the teacher librarian's planning with classroom teachers is underpinned by:

- big-picture understanding of the school's curriculum, pedagogy, assessment and reporting framework
- a deep knowledge of the range of inquiries being undertaken across the school
- insight into a school's teaching strengths and needs
- thorough knowledge of contemporary resources that support individual and school needs
- an ability to link student literacy needs to encompass the wider multiliteracies
- a responsibility to guide teachers in the integration of resources into classroom practice
- participation in working groups that co-ordinate a school approach to student literacy learning
- provision of individual expertise that might include the development of information skills and 'technoliteracy' plans that can form the basis of whole-school literacy growth for students.

Practical programming support from teacher librarians

Here are some examples of programming contributions that a teacher librarian might offer in conjunction with classroom teachers to enhance literacy learning.

- Participation in *Murder under the Microscope*. The multiliteracy learning of students and teachers through this program is exceptional.
- Author- or poet-in-residence. This generates interest and insight into the art of narrative-writing.
- Authors/Illustrators discussing and demonstrating their work with groups of students.
- Story-telling program for selected students. Bring together 30 students from Years 4–7 to participate in an extended series of workshops (1-2 hours per week) with a storyteller. Students then work with the teacher librarian to develop stories to perform at a lunchtime story café (where the library is set up as a café with tables, checked tablecloths, dim lights and flowers while stories are told).
- Membership of Oz Kidz in Print. This online forum supports students to have their work published.
- Parent Internet workshops in the evenings. Through these, parents can learn what their children are doing and develop new skills themselves.
- Learning how to develop and use WebQuests. These online investigations have a lot to offer as learning/teaching experiences.
- 'One school, one author'. Choose an author whose works encompass a wide reading audience. Have the entire school read and share thoughts on this author. Invite the author to the school.

The literacy growth of primary-age students doesn't just happen; it needs nurturing through conscious programming. A teacher librarian's planning should guide individual students along their own personal journey through the myriad of excellent resources available.

Programming should address whole classes, small groups, individual students and sometimes the whole school, including:

- story-sharing sessions in which the teacher librarian is teller or reader
- book discussions
- a constant array of displays, including special events such as Book Week
- reading and sharing with students in pairs or small groups: this is a particularly good way to have older readers appreciate the complexities of narrative through the ever-increasing selection of picture books for the older reader
- advice and recommendations to class teachers
- advice and recommendations to individual students, with individual reading plans if necessary
- lunchtime story sessions at which students, as story-readers, share their favourite stories (or parts of stories) with other students

- informing students about the skills people use to find the types of books they want to read
- arranging visits from guest authors: these people have a direct affect on personal literacy exploration and are a great way to influence student direction
- visits to the community library and state library
- specific borrowing times in the school timetable, allowing students to share and influence other readers and to ask for assistance if they do not typically visit the library in their own time.

Into the future

The contribution that teacher programming can make is enormous. Linking this potential across a school, and then networking it within an array of professional networks, multiplies this potential. This chapter has represented programming as a synergy of actions across a school community. The key elements include:

- a shared commitment to what is important
- alignment of purpose, identity and culture
- clarity of systems for programming that include common strategies and standards
- processes for ongoing improvement
- co-operative effort.

The programming process must be flexible enough to address priorities for improvement, shared innovations, the next round of challenges and new curriculum documents. However, we have tried to demonstrate that the school-wide systematic approach has significant advantages over individualised programming approaches. We have also tried to show that the productive pedagogies can be as powerful a framework for teacher programming as it is for classroom practice.

References and sources

Education Queensland (2001) *The Queensland School Reform Longitudinal Study.* Queensland Department of Education, Brisbane.

Education Queensland (2002) *Productive Pedagogies: Classroom Reflection Manual.* Queensland Department of Education, Brisbane.

Nelson, G W (2001) 'Ways with Community Knowledge'. *PEN* 128. Primary English Teaching Association, Sydney.

Yager, R E (1991) 'The Constructivist Learning Model: Towards Real Reform in Science Education'. *The Science Teacher*, September.

About the authors

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Appendix 4.1: A writing assessment tool for Years 3–7

A piece of writing for each student in the class should be assessed using this form each term.

	Code	NA	Not Applicable		Not Demonstrated	/	Developing	X	Demonstrated consistently

Student	
Name	
Year	
Text	
Type	

Writing Context

	Tutored		Untutored
	Draft		Final copy
	Assisted		Unassisted

Quality of Writing

1	2	3	4	5

- Orients reader
- Conclusion
- Relevant subject matter to task, topic, audience
- Development & sequence of information/plot
- Elaboration & integration of ideas/plot
- Evidence of rewriting & editing

Structure & format of text type

1	2	3	4	5

- Awareness of purpose & use
- Control of format and features

Sentences

1	2	3	4	5

Simple	Compound	Complex
Cohesion	Fragments	Patterns

Paragraphs

- Suited to text type

Cohesion

	Pronoun reference		Conjunctions
	Linkages		Substitutions

Vocabulary

1	2	3	4	5

	Experiments with words		Style
	Appropriate choice		Innovative usage

Lexical cohesion

- Context-appropriate choice maintained

Spelling

1	2	3	4	5

Correct use

Useful inventions

Error patterns

Prescriptive Grammar

1	2	3	4	5

- Consistent verb tense
- Agreement (verb/subject; pronoun)
- Usage

Punctuation

1	2	3	4	5

	Capitals (boundaries)		?;:!
	Other capitals		Speech marks
	Possessives		Contractions
	Commas (list)		Commas (advanced)

Presentation of work

1	2	3	4	5

	Neat		Cursive style
	Book policy correct		Typing competency

Overall assessment

1	2	3	4	5

Suggestion for teaching and planning

Teacher	

5 Embedding information and communication technologies into literacy programming

In this chapter, SUSAN WILSON, with HELEN NIXON, explores the programming challenges and opportunities presented by information and communication technologies in the development of literacy learning.

I do not want my students to be sponges — slurping up all that they are offered in an unthinking, unquestioning and detached manner. In my classroom, I want to change sponge-like behaviour into independent learning behaviour. One of the powerful tools I use in my 'sponge-busting' approach to teaching is embedding critical literacy within an information and communication technology (or ICT) framework.

Literacy is one component in a wider base of classroom programming. I construct a 'big picture' or overview by drawing from texts, ideas and beliefs to achieve my aims. Combining literacy and ICT is an exciting area where the boundaries are pushed every day. There are few guides in this area, so the things that you do as a teacher often break new ground. You do make mistakes, but then that is how you learn — something we tell students all the time.

Background: Why bother with literacy and ICT?

My peers ask valid questions about the role of ICT in the curriculum. Why bother embedding ICT into literacy when students in our classrooms still cannot write? Why give time to the construction of ICT texts when we know students will take huge

amounts of time 'playing' on the computer and ignoring the literacy component? Why bother when we all know that in the afternoon the whole system crashes and it's hard to book the computer pod when you need it? In response to these questions, I have identified three aspects that motivate me to teach within an ICT framework.

Expanding the notion of 'text'

To be fully literate today involves more than the ability to read printed texts. This reality is acknowledged in many state curricula. In our South Australian Curriculum Standards and Accountability (SACSA) Framework, for example, *Communication* sits within the Essential Learnings and Key Competencies as well as in the Text and Context aspect of literacy. It includes a broad definition of text that includes ICT. Learning to read and construct texts using ICT is learning to read and construct in new forms and new genres. These do not replace the existing genres; they expand the existing repertoire.

The value of examples and risk-taking

My own journey into the realm of ICT began only three years ago. Previous to this I was a teacher who had no idea how to embed any ICT aspect into my program — after all, we had an ICT teacher who looked after that. One day, I was put into another context — one that made me quite suddenly aware of the possibilities for integrating ICT. These were possibilities I had never before imagined, and I would not be programming learning experiences in the way I do today if I had not been *shown* these possibilities, or had my awareness raised. Therefore, in this chapter I am not showing *how* to implement ICT with literacy but, rather, *what can be tried*.

Learning by constructing new forms of text

In order to learn about texts, it is important to deconstruct them — to see how they were made. However, learning only really occurs when you try and construct the texts yourself. This idea from Lachs (2000) struck a real chord in my view of the role of ICT in the curriculum. It gave me the validation I needed to have students construct texts, and to give time to this process. Students and teachers alike need a time to play and explore with ICT. But this time is not limitless. That is why student planning is very important in using ICT (or indeed in any learning task). In order for students to become independent learners and to drive their own learning, they need to be able to monitor their progress and be aware of the thinking which goes with the decisions they make. I spend as much time on teaching the skills for the task and having students plan their task as I spend on the task itself. Kearney (1998) provides valuable support in teaching aspects of planning (see the chapter references).

Approaches to programming

I initially plan curriculum from a wide base which sets the direction of my teaching and aims. That being the case, I will look first at big-picture planning and then zoom in to

the specific planning undertaken for topics which bring together ICT and literacy. In the process, I will look at ways of monitoring student work and of assessing student performance in this relatively new area. This narrative journey explores some of the roads taken by my class of Year 6/7 students last year. We have not yet produced a reliable map for using ICT in the classroom. I have encountered roads that I will not go down again and others that I will take once I have modified them. But to tell you a story without the bumps and dead-ends will give you the false idea that there is a current 'best way' of including ICT within literacy. I prefer to show you the trials and tribulations of the journey, and open up the possibilities so that you can plot your own course.

The teaching and learning context

My school is a large, complex, metropolitan R–7 school of around 600 students. As a Discovery School*, it has had access to ICT and human resources to assist in looking at the way teachers and students use learning technologies. Our focus has been to embed learning technologies in the curriculum. The journey outlined in this chapter is only one story in one Year 6/7 classroom over part of one year. I did not travel alone: two brave souls, Helen Nixon from the University of South Australia and Lee Sansom from Technology School of the Future <www.tsof.edu.au/lt.sa/>, provided invaluable company, offering a range of perspectives and suggestions.

* *Discovery Schools were created in South Australia as part of the Learning Technologies Project 1999–2001, which aimed to assist teachers to embed ICT into the curriculum (see www.tsof.edu.au/lt.sa/).*

Big-picture planning

Six overriding principles of processes and pedagogy affect all of my planning:

- SHIP (students with high intellectual potential) methodology, which emphasises thinking skills and questioning techniques
- Critical pedagogy strategies used to teach critical literacy
- Explicit teaching for quality outcomes: this includes the teaching of planning, appraising plans and monitoring progress, reflecting and refining skills
- Constructivist teaching principles: learners take an active role in constructing the meaning and direction of their learning
- The SACSA Framework <http://www.sacsa.sa.edu.au> and the Essential Learnings — understandings, dispositions and capabilities to be developed through the learning areas (Last year, I concentrated on the essentials of Communication, Interdependence and Identity. Key Competencies — generic skills, understandings and processes for education and life — were used within the assessment process.)
- Enterprise pedagogy: this is concerned with making teaching and learning a more engaging, relevant, effective and value-added process, and involves greater degrees of student ownership, experiential learning, co-operative learning and reflective practices.

Influential professional texts

My big-picture planning draws on the work of a number of professional educators who have inspired and directed my focus. The ideas I use are displayed in poster format within my classroom to show explicitly where we have been and where our journey will take us. Some of the approaches that have influenced my planning include:

- Bellanca and Fogarty's (1991) three-storey intellect, a hierarchy of complex thinking based on Bloom's questions which involve the macro processes of gathering, processing and applying information. These macro processes move towards metacognitive behaviour which maps the thinking prior to, during and after a learning activity
- Lachs' (2000) examples of the possibilities and potential difficulties in planning, teaching and assessing using ICT in the classroom. Lachs suggests the value of learning about multimedia texts by creating them
- Kearney's (1998) strategies for teaching enterprise/team skills and for assisting students to plan and to appraise their plans
- Pohl's (2000) strategies to develop analytical and caring thinking, as well as problem-solving and decision-making skills
- Langrehr's (1996) strategies for teaching critical and creative thinking through the four Ps of positivity, patterning, posing questions and picturing
- Misson's (1998) discussion of critical thinking and the deconstruction of popular texts by exploring their ideology and commercial appeal.

Embedding critical literacy within ICT practices

Using ICT generally conjures up the idea of specific software programs such as *Kid Pix* or *HyperStudio*, and a focus on the machine rather than the process. But the construction of powerful texts calls on ICT *and* literacy skills. It goes beyond the listing of design elements of a text or the manipulation of one software program. It involves making decisions on which program to use for which purposes and which audiences, and understanding how all aspects of text design, both image-based and print-based, go into creating a powerful text. Compared to the abundance of scaffolds and procedures outlined for many other forms and genres of writing, there is not a lot of available information on how to write, say, for the Web. I have gained a lot of my information from private businesses who support web design. This shows what unmapped territory we are exploring and suggests that ICT practices in schools will continue to evolve.

What literacy skills and understandings are required for the construction of a powerful text? There are at least two key areas. The first involves the critical reading of texts; the other relates to the functional aspect of making a text using the modes and conventions of ICT.

In relation to texts generally, critical literacy is not just knowledge of language, but understandings about how language works to serve particular interests. It involves locating language in a broader matrix of power, history, schooling, culture, class and so on. Critical literacy can be developed by:

- comparing texts
- deconstructing texts

- asking questions
- examining values
- (re)constructing texts.

In relation to ICT, functional literacy involves a knowledge of the processes and conventions that characterise texts in the digital environment. My class has discussed the importance of such things as:

- the need to make writing concise and direct, fitting within the dimensions of a standard screen (because readers rarely scroll down)
- making sure the main point is at the top — clear and not buried in the page
- keeping paragraphs short
- ensuring that each page stands alone in meaning within a multi-linear text
- the importance of headings and titles
- the use of punctuation, underlining and bolding
- careful use of pronouns, e.g. 'it', if the subject was discussed in a previous page.

Understanding multi-modal texts

There are quite specific skills and understandings that must be developed in relation to multi-modal texts. These include:

- understanding the notion of 'text', and broadening its definition to include print and non-print forms
- recognising and understanding the different design elements which make up various texts, and how their combination creates meaning. Kress (1997, 2000) argues that there are six 'design elements' in the meaning-making process: audio, visual, linguistic, spatial, gestural, and the multi-modal patterns of meaning that relate the first five modes of meaning to each other
- exploring the notion of linear and multi-linear texts. *Linear* texts have a fixed beginning, middle and end: readers can see (or feel) where they have been and where they are going. There is little choice in the direction of travel. *Multi-linear* texts have no fixed beginning, middle and end; they offer choices about which course to take. They are interactive, requiring users to make decisions and commands as they navigate around the text. Users may ask where they have been and where they are going. Multi-linear texts can have linear elements: as readers navigate around a text they devise their own route, which can take on a linear appearance for the reader
- learning about integrated and annotated texts and composition (Lachs, 2000). *Integrated* text is where visual and written text together make meaning; that is, meaning could not be made satisfactorily without combining the two. *Annotated* text is where either visual or textual elements are added after the original meaning has been made in one medium. The second medium illustrates the point, but is not necessary for meaning to be made
- learning about *reading by association* (Thurstun, 2000). This is a different form of reading compared to the reading of a linear text. Multi-linear texts ask us to create our own links and associations between screens. Teachers can demonstrate this kind of reading by asking students to map their navigation of a multi-linear site by sticking a post-it note on a large sheet of paper to represent each screen visited, then drawing the connections or associations between the screens
- learning about powerful ICT texts by deconstructing them and creating them.

Deconstructing multi-modal texts

It is one thing to plan to teach aspects of literacy as they relate to ICT. It is another to know what these components are. I found that I was developing my own ideas about these new media and new genres, and ways to teach them. An important part of my planning for the creation of powerful multi-modal texts was how to assist students to deconstruct how these texts are composed, and how they work. When students deconstruct these 'hybrid' texts, what do we want them to look at?

Some aspects of different print genres can apply to multi-modal texts, depending on the text and its purpose. But our research team could not come up with a firm and fast relationship between literacy in printed text and in digital form. Drawing on teacher discussions about Kress's design elements, we have been trialling text-deconstruction activities using checklists.

The checklists, first of all, enable students to identify whether a text is linear or multi-linear. The following criteria are provided for *linear* texts:

- There is a fixed beginning, middle and end.
- You can see where you have been and where you are going.

Students are then supported to deconstruct a linear text by identifying and commenting upon a range of features under the following categories:

- Visual meaning — point of view, angles, framing, lighting, sequencing, transitions etc.
- Linguistic meaning — word choices, including absences
- Spatial meaning — arrangement and relationship of elements
- Audio meaning — sound-effects, music, dialogue/voice-over etc.
- Gestural meaning — facial expressions, body language and movement etc.

To identify a *multi-linear* text, students use the following criteria:

- You may ask where you have been and where you are going.
- There is no fixed beginning, middle or end.
- Reading requires association.
- The audience is given information on what they have to do (it is interactive).
- You navigate through the information.

To deconstruct these texts, students are supported to identify and comment upon such features as:

- useability — the appropriateness and accuracy of information, the clarity of directions, the consistency and accessibility of design etc.
- interactivity — what the user is required and permitted to do, and whether this enhances the text etc.
- effectiveness — the integration of visual, linguistic, spatial, audio and gestural elements, and whether this realises a coherent meaning and mood.

The programming approach in practice

Planning for the creation of powerful texts: Two tasks in focus

In the remainder of this chapter I draw on examples from two topics that integrated literacy and ICT.

The first topic was 'Positive Promotion of Team Skills'. The task here was to explore a type of popular text — one that we defined as the 'elimination game show'. We explored the power of this text type both commercially and ideologically, and questioned the values and attitudes promoted. These values were compared with values and skills that are taught and given status at school (and, supposedly, in the wider community) — things such as team skills and enterprise skills. The then-popular television game show *The Weakest Link* was the main source for initial discussion. Students then formed enterprise groups. Their task was to construct a powerful text to promote positive team skills and enterprise skills to the school community in a multimedia production.

The second topic explored the notion of 'cool', and the idea of marketing to a specific group in the community. Students canvassed what their peers thought was cool, then designed a product to appeal to them. The task was to persuade their peers that they wanted this product, using the hook of 'cool' to advertise the product via a linear or multi-linear integrated text.

The task in each topic was to create a powerful text. Students were trained in *iMovie, PowerPoint* and *Flash*. They were taught exposition texts in print and oral form. As a class, we looked at texts that were variously linear, multi-linear, integrated and annotated. We deconstructed texts to see how text design related to purpose, discussing the attributes that made a text powerful. We explored the notion of reading by association using post-it notes, as outlined earlier. We explored various methods of storyboarding for a multi-linear text. (Initially, I gave the students linear storyboards, but this was not suitable. Our latest effort is again to use post-it notes on a large sheet of paper, posting in random order the various screens we want to make. After all the screens are decided, we then draw the connections or associations between screens.)

Like many of the tasks I program, these units were presented to students in a design brief that set out the thinking and teaching that occurs behind the task. I am what Capelli and Brealey (2000) would call an anablep. An anablep is a South American fish that has eyes capable of seeing above and below the water at the same time. Capelli and Brealey have taken this idea to represent a teacher or learner who is able to see the content above the water and the methodology below the water. The design briefs are constructed to reflect this way of seeing. Appendix 5.1 shows the design brief I produced for 'Exploring Cool'.

These design briefs require students to learn about and create texts. They also involve the embedding of critical literacy in ICT. Students are required to read popular texts and to ask critical questions, and the texts they read and make are constructed using the printed word, visuals and other elements of meaning-making.

The planning document reproduced in Appendix 5.2 shows a way of devising a performance assessment task. This approach was used to link teaching and learning in the 'Exploring Cool' unit with unit outcomes, Essential Learnings, Key Competencies and ICT processes. (On reflection, it could be modified to reflect more of a 'big-picture' or 'anablep' view.)

Planning for learning

Students need planning skills if they are to become independent learners. Some of the strategies I used in 'Positive Promotion of Team Skills' entailed using three planning tasks.

Task 1: The big picture

Before starting the task outlined on the design brief, each team devised a plan which acted as an overview of where they wanted to be at the end of each week. Although the students were not held to them, the plans formed a basis for action, especially in the first week.

Task 2: Daily plan

At the start of each lesson, students set out their role in the group for that day. This involved planning what their task was and how they were going to achieve it. It also involved identifying the enterprise skill they wanted to practise and develop (see Fig. 5.1 below).

Figure 5.1: An action plan used by individual students to support task achievement

Individual action plan					**Weekly journal response**
Week & time	What am I going to achieve?	How am I going to achieve it?	Skills I will learn/ practise/use	Resources required	Reflection
					What were you expected to do over the week? What do you think went well?
					What would you do differently next time? What help do you need from me?
					What decisions did you make over the week? Why did you make those decisions: what thinking went on behind them?
					Comments

Task 3: Weekly reflection

At the end of each week, students wrote their reflections on the week's work. This was a valuable tool in monitoring team progress and in hearing students' concerns. Figure 5.1 above shows the questions that students were asked to consider when they prepared this weekly journal response. This sheet was passed up to me, and I wrote back to each student.

In truth, I found it very difficult to respond to all students at the end of the week, but it did help me to solve some group disputes and to monitor what each student was doing in the time allocated. This brings an interesting point about working with ICT. The texts and guidelines from Technology School of the Future recommend that, when they are making multimedia texts, students work in a co-operative group in which each student has a specific role (such as producer, sound technician, editor, film crew or researcher). When monitoring students' planning and activity, however, I found that they often stayed as a collaborative group to do the tasks. This often meant that all participants clustered around one computer, or that all offered advice when one was filming. When asked about this, the students responded that they wanted to learn and do it *all*. They did not want to miss out on any part, since they felt they had a vested interest in each stage.

Lachs (2000) writes that both co-operative and collaborative group organisation are acceptable when working with computers; sometimes a mixture of both is needed. This relieved my apprehension and provided me with a new headset. I saw my students as learners *wanting* to know the various programs and skills in ICT, especially as we covered new ground and new skills in each topic. Had we already honed our skills in one ICT, such as *iMovie*, a diversification of roles would have been an appropriate aspect of planning. In this case, though, we were all learning new skills, and none of us wanted to miss any of the action!

Monitoring student learning

The development of thinking skills aids in the development of independent learners. One important and complex thinking skill is metacognition — thinking about thinking. Bellanca and Fogarty (1991) outline the importance of this skill prior to, during and after a task. I used the checklists represented in Appendices 5.3 and 5.4 to assist students to think about their performance during and after the task.

Appendix 5.3 is a list of steps involved in completing the unit on 'Positive Promotion of Team Skills'. Students used this form over the length of the task, both as a planning guide and as a checklist to monitor their progress.

Appendix 5.4 shows a sample from the learning log used by students to monitor their work in the unit on 'Exploring Cool'. Students had to supply proof of achievement, with other students in their group verifying the attainment of this skill if they agreed with the proof offered. I included ten enterprise skills within the log, based on Kearney (1998): positive attitude, communication, leadership, determination, conflict resolution,

risk-taking, problem-solving, using initiative, creativity and co-operation. I initially thought this set might cause an overload of written material, but the students were very keen to practise skills they felt they lacked, and to have their peers verify them. The recording of student comments was invaluable, giving me an insight into what was happening in each group and with each student. Written responses and logs, though, do not give the detail that we obtained by interviewing students as part of the research process. This is further explained in the evaluation section following.

Assessment

As I devise assessment for literacy and ICT, these questions emerge:

- How do you assess something that involves aspects of literacy, ICT development and other skills and knowledge explored in a unit of work?
- When devising assessment, what do you give greater emphasis to: the process or the product?

These are good questions, and ones that I am still struggling with. In answer to the first question: the best way I can assess all aspects at this stage is by using a rubric. It is not the only form of assessment, but is a quite useful tool.

Assessment rubrics

Rubrics are extremely useful for including multiple assessment aspects on one page and on one scale. As I learn more, the types of capabilities that I want to assess change. I am constantly rewriting rubrics and changing them for each new context. I haven't yet come to a set structure. I have used rubrics for self, peer and teacher evaluation of a task. Appendix 5.5 shows the rubric I used to assess student performance in the unit 'Exploring Cool'.

End product or process?

My second question asks about the relative importance of process and product. When one of my colleagues viewed some of the end products of the 'Exploring Cool' topic, I became rather embarrassed. I was conscious of how inadequate (I thought) they were, and I found myself talking about the long and involved process and we undertook to get that far. The end product is often the only visible proof of your journey, and others will tend to judge the quality of the journey by that end product, however unfair this seems.

My emphasis over the two topics discussed here — 'Promotion of Positive Team Skills' and 'Exploring Cool' — was on exploring different aspects of literacy and exploring how to embed these within a powerful multi-modal text. Students were learning new skills and ideas at each encounter. Therefore, I emphasised *monitoring* the journey to bring attention to the process used and the learning that occurred along the way. Had I set the students a series of tasks that used the *same* aspect of literacy and ICT, they would

have attained a greater degree of mastery over particular skills. Accordingly, the emphasis would have been on improving the quality of the text produced.

Lachs (2000) suggests that both process and product may be evaluated according to a number of continua, including:

- audience awareness and interactivity
- planning of multi-linear environments
- annotated/integrated composition
- collaboration.

Individual teachers will need to experiment with a number of these suggestions to see what works for them in relation to their teaching and learning objectives.

Written assessment

To promote team skills, I read all the student journals, and their daily and weekly responses, then devised a feedback sheet that informed each group on how I saw their development. This was a way of reflecting on how each group worked and developed their skills. It catalogued their difficulties and how they overcame them. I would probably not write such a document again, but I would still reread any student documentation that I had collected over the time of the task.

Evaluation

The discussion above outlines the significance of gathering some record of students' thinking and working. Journals and logs do not always provide great detail, since students can be reluctant to write in detail. However, our research team obtained feedback about students' work from taped interviews conducted with various student groups as they worked. These reveal that students were able to make distinctions between texts produced with pen and paper and texts produced electronically. They provided evidence that students began to develop a new vocabulary for describing the new texts they were interpreting and producing. Many students began to use terms that are integral to the creation of visual and digital texts, including 'storyboard', 'transitions' and 'voice-overs'.

These interviews showed that students were learning to characterise the textual features of multimedia texts. Terms such as linear and multi-linear texts, and integrated and annotated texts, entered their vocabularies. Some students were able to describe the structure of their texts: "We're going to do linear, step-by-step, like with the storyboard". They were able to describe their new literacy and ICT skills: "Now I know how to do transitions and voice-over"; "I think that editing the iMovie went well, such as putting the voice-over onto the black screen at the beginning and in the middle, and all the other editing, like transitions and cutting out bits that were too silly".

Some students could provide a rationale for changes they made to texts: "When we changed the music it was more ear-catchy and more effective. The thinking behind the sound decision was to change the background to make it more attractive, eye-catching and bright. This was done by mixing and matching colours." Students were also able to articulate the need to learn to work in teams, and to share, collaborate and negotiate to produce electronic texts that would persuade, inform or communicate with their intended audience.

Future directions

Recently, my professional reading has suggested another possible teaching and learning destination: the learning plaza. Caine and Caine (1997) talk of a creative learning plaza, an open environment for students to work together with all equipment on hand and facilitating teachers on call if groups need assistance. My interpretation of this idea will be an environment for independent work set up in the resource centre, where cameras, computers and written texts are available. The resource-centre teacher and I will be facilitators. For this to operate satisfactorily, students will need to be trained in independent working skills, which will include planning and team skills. In this new environment, we will continue to explore literacy and ICT skills with the goal of constructing our own powerful texts.

References and sources

Bellanca, J & Fogarty, R (1991) *Blueprints for Thinking in the Cooperative Classroom*. Skylight Professional Development, Arlington, IL.

Caine, R & Caine G (1997) *Education on the Edge of Possibility*. Association for Supervision and Curriculum Development, Northbrook, IL.

Capelli, G & Brealey, S (2000) *The Thinking Learning Classroom*. The True Learning Centre, Perth.

Janks, H (1993). *Language, Identity and Power*. Hodder & Stoughton with Witwatersrand University Press, Johannesburg.

Kearney, P (1998) *Enterprising Ways to Teach and Learn*. Book 2: *Enterprise Activities*. Enterprise Design Associates, Hobart.

Kress, G (1997) 'Visual and Verbal Modes of Representation in Electronically Mediated Communication: The Potentials of New Forms of Text'. In Snyder, I (ed.), *Page to Screen: Taking Literacy into the Electronic Age*. Allen & Unwin, Sydney.

Kress, G (2000) 'Multimodality'. In Cope, B & Kalantzis, M (eds), *Multiliteracies: Literacy Learning and the Design of Social Futures*. Macmillan, Melbourne.

Laehs, V (2000) *Making Multimedia in the Classroom: A Teachers' Guide*. Routledge/Falmer, London & New York.

Langrehr, J (1996) *Thinking Clips for Thinking Students*. Hawker Brownlow Education, Melbourne.

Misson, R (1998) 'Theory and Spice, and Things Not Nice: Popular Culture in the Primary Classroom'. In Knobel, M & Healy, A (eds), *Critical Literacies in the Primary Classroom*. Primary English Teaching Association, Sydney.

Pohl, M (2000) *Teaching Complex Thinking: Critical, Creative, Caring*. Hawker Brownlow Education, Melbourne.

Thurstun, J (2000) 'Screenreading: Challenges of the New Literacy'. In Gibbs, D & Kerri-Lee, K, *Cyberlines: Languages and Cultures of the Internet*. James Nicholas Publishers, Melbourne.

About the authors

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Appendix 5.1: Design brief for a unit of work around the construction of a persuasive integrated text.

Exploring 'cool': Design brief

Issues

› There are more teenagers in the world today than at any other time in history. In Australia alone, they contribute 5 billion dollars to the economy per year, making them the most lucrative and sought-after demographic group in the field of advertising. Teenagers are regularly surveyed to find out their perceptions of what is cool, and these ideas are marketed back to them by businesses. To understand their unique position in the marketing world and the power of persuasive multimedia texts, students need to take part in the making of such texts, using researched information on 'cool' as a hook.

› We live in a world where we interact with a variety of texts other than print. Linear and multi-linear texts require different types of 'reading' or meaning-making. Students need to be taught about these texts, and the design elements that combine to form meaning.

Task

Design a product using the thinking skills of SCUMPS (looking at the attributes of an object: size, colour, materials, parts and shape) or CREATE (combine ideas, give random input, eliminate parts, look for alternatives, twist ideas and elaborate or extend ideas). Persuade your peers that they want this product using the hook of 'cool'. Persuade them by advertising your product through a linear or multi-linear integrated text. This means the design elements of visual, audio, linguistic, spatial and gestural need to be considered together in designing your text.

Groupings

Groups: teams of 2 or 3. Students choose partners from their media group (*iMovie* or *Flash*).

Materials: action plans – overview; daily plan; storyboard; IT – video, digital camera, scanner, and programs such as *iMovie, Flash, PowerPoint* and *HyperStudio*. Computer access/time for editing and construction.

Situation *What I expect students to do, and how they will make their own meaning.*

› Research what was cool in the past, and present findings.

› Research what is cool now, and present findings.

› Decide on the media format you wish to train in and use for the task.

› Design a lifestyle product using SCUMPS and/or CREATE.

› Decide on audience and purpose for the task as a class.

› Deconstruct linear and multi-linear texts, identifying and commenting on:

  – the design elements

  – their integration

  – the interactivity of the text.

› Read a multi-linear text by association.

› Individually write your understanding of what linear and multi-linear texts are, before making your own texts.

› As a team, decide on the design to promote. Draw a diagram explaining the design.

› Plan as a team by constructing an overview planner or timeline, and then daily action plans.

› Construct storyboards integrating the design elements you choose to use, and relate them to the purpose and audience of the task. Decide what design elements incorporate your researched ideas on 'cool'.

› Make a persuasive multi-linear or linear text.

› Reflect on your decisions and progress by recording feelings, comments and answers to prompting questions on video tape.

› Evaluate your process as well as your product, and the implications for future work in constructing multimedia texts.

Bridge *between what students already know and what I want them to learn*

- Exploring the notion of 'cool' and creating a class definition. Discussing the idea of being a targeted group for marketing.
- Reflecting on examples of still *iMovie* and *Flash* animation texts.
- Training in *Flash* animation and *iMovie*.
- Exploring creative-thinking skills to generate ideas.
- Exploring design elements, and how they are represented in different texts; deconstructing texts to identify the integration of design elements.
- Actively teaching about the differences between linear and multi-linear texts, integrated and annotated texts, as well as interactive and non-interactive texts.
- Exploring the idea of reading by association in multi-linear texts.
- Brainstorming the criteria for successful construction of an integrated persuasive text.
- Presentation of your work, thinking and findings.
- A class of peers views the *iMovie* texts while another class of peers views the *Flash* texts.
- Room 13 to view all texts for comparison, comment and evaluation.

Reflections about learning

Self: metacognitive reflections – thinking about your thinking, about decisions made and changes decided on, recorded on video tape each week. Use Big Brother room 13 to record the process.

Peer and teacher: rubric – assessing the end product using the criteria for success.

Audience: simplified rubric using the same criteria.

Timeline

Week 2	Start *iMovie* and *Flash* training.
Weeks 3-5	Work in pairs on the brief. Training occurs during this period.
Weeks 3 & 4, Monday	Lee will visit Week 4, Monday. Set class periods for working on 'Cool' are Mon 9-11, Tues 1:35- 3:00, Wed. 11- 12:30.

Appendix 5.2: The structure used to program teaching–learning experiences for the unit 'Exploring Cool'.

Essential Learnings

Futures
- understanding of patterns and connections within systems
- understanding world views when analysing future challenges
- building scenarios of preferred futures
- acquiring skills that will enable them to thrive in a fast-changing world

Thinking
- knowing themselves profoundly as learners and thinkers
- using a wide range of thinking modes
- utilising thinking from a range of times and cultures
- developing and employing enterprising attributes

Identity
- understanding themselves, groups that they belong to, and other members of their community
- understanding the social construction of identities
- developing the capacity to relate effectively to others and to resist the pressure of negative stereotyping
- achieving a sense of their own current and emerging identities

Concept/Issue

Research of, and marketing to, peers. Reading and constructing linear and multi-linear texts with emphasis on design elements, purpose and audience

Essential questions

What differences are there in reading and constructing linear and multi-linear texts? What makes a text powerful?

Habits of mind

Creativity, risk-taking, flexible thinking, metacognition, applying knowledge

Key Competencies

- Collecting, analysing and organising information
- Communicating ideas
- Planning and organising activities
- Working with others and in teams
- Using mathematical ideas and techniques
- Solving problems
- Using technology

Performance assessment task

Design a product using the thinking skills of SCUMPS and CREATE. Persuade your peers that they want this product using the 'hook' of COOL. Persuade them by advertising your product through a linear or multi-linear integrated text. This means the design elements of visual, audio, linguistic, spatial and gestural need to be considered together.

Learning experiences & strategies

- Explore the power of visual media using Hilary Janks' books. Aim: to show that words and pictures create meaning; that different people create different meanings depending on who they are – their experiences and perspectives.
- Explore the notion of 'cool', creating a class definition. Discuss the idea of being a 'target group' for marketing companies whose research on the group is sold, manipulated and used.
- Students research what was cool in the past and what is cool now.

ICT focus

Accessing content
- CD-ROM
- WWW
- Email

Organising content
- Concept maps
- Word processor
- Databases
- Spreadsheet
- Reason/Logic

Creating content
- Animation
- Video
- Images
- Sound
- Paint
- *QuickTime Pro*
- *iMovie*
- *Sound Edit / Cool Edit*
- *Kid Pix*
- *PhotoShop*
- Scanner
- Digital/ Video camera

Essential Learnings

Interdependence

› understanding cultural and global connections, patterns and evolutions

› understanding what is needed for sustainable social and physical environments

› co-operating to achieve agreed outcomes

› acting to benefit their communities

Communicating

› understanding the complexity and power of language and data

› understanding how communication works

› having the ability to make effective use of language, mathematical information and the tools of information and communication technology

Learning experiences & strategies

› Reflect on examples of still *iMovie* and *Flash* animation texts.

› Train in *Flash* animation and *iMovie*.

› Explore the creative thinking skills of SCUMPS & CREATE, generating many ideas which could be adapted by students.

› Explore the idea of design elements, and how they are represented in different texts. Deconstruct texts as a class, discussing the integration of design elements.

› Actively teach about the differences between linear and multi-linear texts, integrated and annotated texts, as well as interactive and non-interactive texts.

› Jointly deconstruct linear and multi-linear texts, identifying and commenting on:
  » the design elements
  » their integration
  » the interactivity of the text.

› Students read a multi-linear text by association.

› Students write their understanding of what linear and multi-linear texts are before making their own texts.

› Students plan and create their own texts.

› As a class, brainstorm the criteria for success for the created texts.

› Reflect during and after the process.

Key Ideas

› Power of visual texts

› Notion of what is 'cool' and how to find out

› Linear and multi-linear texts

› Design elements

› Integrated and annotated texts

Outcomes

› Create a powerful and persuasive multimedia text which targets its intended audience and succeeds in its purpose.

› Articulate the design elements used, and why they were used.

› Reflect on the decisions made and process undertaken – think about thinking.

ICT focus

Communicating/ Sharing content

› *Kid Pix*

› *iMovie*

› *HyperStudio*

› *PowerPoint*

› Web publishing

› *Flash*

Evaluating

› Concept map

› Rubric

› Metacognition

› Audience feedback

› Self

› Peer

› Teacher

Appendix 5.3: The checklist used by students to reflect on their performance during the unit of work on 'Positive Promotion of Team Skills'.

I have shown that I have:	Done	Not done	Reasons/ Comments
Overview			
› understood the task			
› been clear about the timeline			
Thinking & planning			
› brainstormed ideas			
› used a graphic organiser or other planning tool			
› thought about audience			
› thought about purpose			
› thought about skills needed to promote			
› thought about how best to get the message across			
› listed resources we would need (people, skills, materials, space, pods, cameras)			
› worked out a team timeline to set goals and benchmarks			
Drafting/Doing			
› drafted a script			
› written a storyboard			
› included detail and made it interesting and appropriate for the audience			
Reflecting			
› kept to the plan			
› gone back to the brief to check that everything is covered			
› edited and revised along the way			
Refining			
› practised the presentation to make improvements			
› made changes in a quality way			
› asked for and used feedback			
Presenting			
› chosen an engaging way of presenting the information			
› used an appropriate level of language for the audience			
› formed an evaluation sheet for the audience			
Evaluating			
› completed the final review and reflection			

Appendix 5.4: A section of the student learning log used by students to reflect on their performance during the unit of work on 'Exploring Cool'.

Positive Attitude

I have shown that I:	I have achieved this by:	Verified by:
think positively		
try my hardest		
encourage others		
see things through		
accept different/new ideas		

Communication

I have shown that I:	I have achieved this by:	Verified by:
take part in active listening		
give ideas to the group		
ask for reasons behind ideas		
add to someone else's ideas, give examples		
show positive body language		

Group members _____ Lifestyle item promoted _____

Media format used iMovie ☐ Flash ☐ Linear ☐ Multi-linear ☐ Audience: peers

Purpose: To persuade and appeal by using aspects of what is considered 'cool' today in the design elements.

Area assessed	Level 1	Level 2	Level 3	Score/ Comment
Overall effectiveness of text	Not effective. Overall message of this text is not interesting. It does not persuade, appeal or give a compelling message.	Fairly effective. Overall message of this text is interesting. Fairly persuasive, with some appeal.	The text is very effective Overall message is quite persuasive and appealing.	
Effectiveness of 'cool' as a hook to keep interest	Viewer has little good reason to keep watching. Audience not engaged. Sound and pictures do not relate to the audience.	Viewer is fairly interested by the cool aspects of the text. Audience is reasonably engaged. Sound and pictures are fairly appropriate for audience age.	Viewer is hooked from the beginning by the 'cool' aspects of the text, and maintains interest throughout. Audience very much engaged. Sound and pictures are age-appropriate.	
Clarity and relevance	Many elements of the text are irrelevant to the overall message or purpose. Message not really clear.	Most elements are relevant to the overall message and purpose. Message is clear and: **(linear)** logically sequenced **(multi-linear)** fairly easy to gain by association.	All elements of the text are relevant to the message/purpose. The message is: **(linear)** clearly and sensibly sequenced **(multi-linear)** easy to gain by association.	
Creativity	Little evidence of imagination, creativity or originality in the text.	Some degree of imagination and creativity in the text.	High degree of creativity and imagination in the text.	
Design elements	One design element dominates to create meaning.	At times, all design elements combine to create meaning.	All design elements combine to create meaning. An integrated text.	
	Very few design elements add to the power of the text.	Some design elements add to the power of the text.	Design elements add to the power of the text.	
Multi-linear Interactivity	Interactive elements do not really relate to the subject. Navigation is difficult.	Most interactive elements relate to the subject. Navigation is sometimes difficult.	Interactive elements relate to subject. Audience has something to do. Navigation is easy.	
Multi-linear Consistency	There is no consistency in the fonts, format and screen transitions (unless intended as a feature).	There is some inconsistency in the fonts, format and screen transitions (unless intended as a feature).	There is consistency in the fonts, format and screen transitions (unless some inconsistency is a conscious design feature).	

Appendix 5.5: An assessment rubric devised for the unit 'Exploring Cool'.

Four curricular forms:
Supporting literacy in middle-school programming

Learning areas, or subjects, make it difficult to engage students in the literacy practices associated with out-of-school issues, roles and contexts. Yet they remain a fact of life for students and teachers, particularly in secondary schooling. In this chapter, ANDREW SEATON *looks at ways of having our cake and eating it, too.*

Background

Two central questions must always guide our curriculum programming:

- What *kinds* of student learning do we hope to support?
- *How well* will our curriculum (explicit and hidden) support such learning?

Traditional forms of curriculum have tended to be driven by the demands of political and bureaucratic accountability and characterised by mandated, atomised, closed-ended outcomes or content, and various pedagogies of control. There is massive cultural inertia surrounding this traditional model. But increasingly there are calls for curriculum to focus on "the broad role performance capabilities of young people and their ability to do complex tasks in real settings, in real situations, relating more directly to life" (Spady, 1993:10). Calls for more focus on the development of such active literacy have been accompanied by calls for the development of critical thinking.

Rather than resisting the inertia of traditional schooling directly, I have been trying to develop practical ways of *balancing* traditional curriculum by including opportunities for open-ended, empowering, constructivist approaches to learning that students will see as relevant and useful in their world beyond school. My aim has been to create guidelines that will contribute to the development of individuals who:

- are able to prosper in changeable social, cultural and economic environments
- have a strong sense of identity, autonomy and self-efficacy
- have a genuine respect for themselves and others
- have recognised and developed talents and capacities which they willingly contribute to productive and co-operative purposes.

Out of this effort grew the *Key Abilities Model* (Seaton 2002a, 2002b), which provides guidelines for curriculum programming, learning and teaching, assessment and reporting, and school organisation. The Key Abilities Model supports the creation of rich learning environments and experiences that closely reflect the known principles of effective learning and teaching, and promote meaningful and engaged learning connected to the world. The model helps teachers to address mandated requirements, while supporting and tracking the development of six transformational outcomes or key abilities:

- multiliteracies
- problem-solving
- creativity
- community participation
- self-management
- knowledge of self, others and the environment.

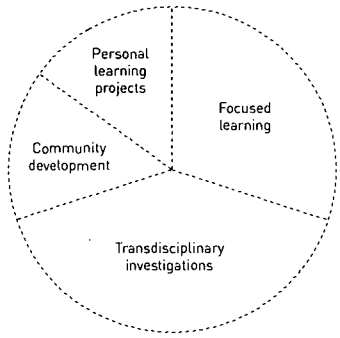
When implemented at a whole-school level in secondary schools, the model assists in overcoming some of the limitations of the traditional fragmentation into discipline areas. While whole-school implementation also realises the greatest benefits in primary schools, many primary teachers have a sufficient level of discretion in their curriculum planning to draw on the model when they program learning experiences.

Approach to programming

Programming through four curricular forms

It is clear that students need a variety of *kinds* of learning experiences if they are to achieve the increased variety of goals we have for schooling. Alternative ways of 'slicing up' or combining the content of the curriculum 'pie' cannot significantly change the messages communicated by the basically unchanged *form* of curriculum. A more satisfactory solution is to provide for four curricular forms (Fig. 6.1).

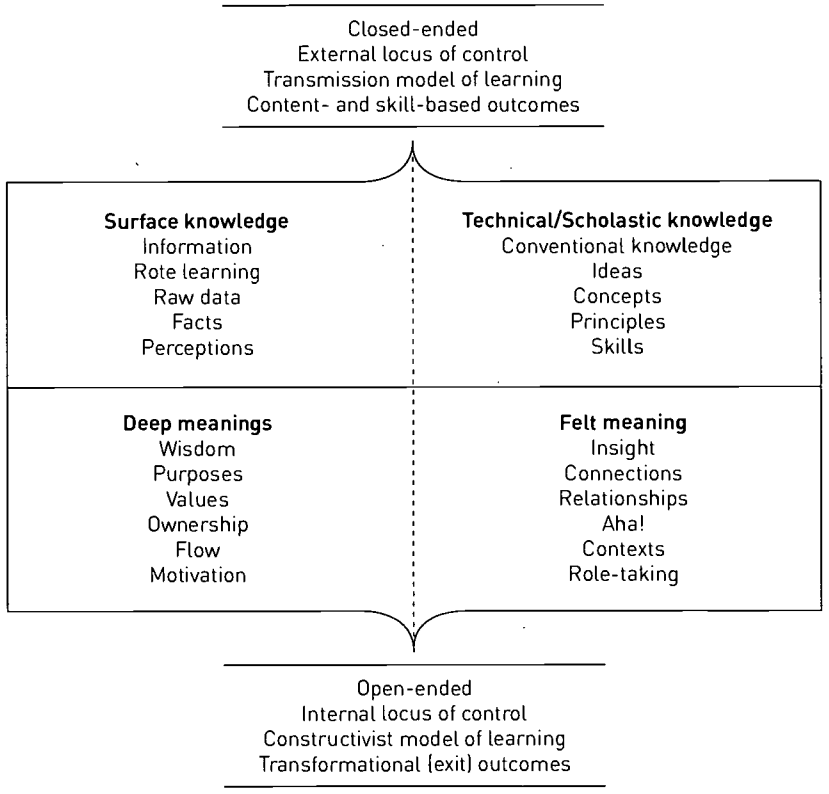
Figure 6.1: Four curricular forms



The figure above provides a visual indication as to the amount of curriculum time that might be allocated to each form. All mandatory outcomes or curriculum requirements are addressed within focused learning experiences or transdisciplinary investigations. The only exceptions might be 'generic' curriculum elements — things that attach to a variety of learning areas. Graphs, letters of invitation, journal entries or recounts, surveys, reports and emails are just a few examples.

The distinctions between these forms are more strategic, or pedagogical, than fundamental. However, each form has a particular significance, aimed at supporting the four levels of knowledge that brain research tells us about: surface knowledge; technical or scholastic knowledge; felt meaning; and deep meanings (Association for Supervision and Curriculum Development, 1999). These four levels of knowledge are represented schematically below (Fig. 6.2). Note the distinctive characteristics of the top and bottom halves of the model.

Figure 6.2: Four levels of knowledge



There is no exclusive or direct correspondence between the four curricular forms and the four kinds of knowledge. However, it will be apparent in the discussion that follows that programming that is driven by the four forms is able to support different 'ways of knowing' in the classroom. This kind of programming not only provides space for the different learning styles and dispositions that students bring with them, it also supports the development of knowledge that is deep and transferable.

Exploring the four forms

Focused learning

Focused learning activities include knowledge- or skill-focused learning and teaching relating to particular mandated learning outcomes or curriculum essentials that cannot practically be learned and mastered solely in complex, transdisciplinary or real-life contexts. Focus areas might include aspects of multiliteracies (including information and communication technologies), mathematics, numeracy, foreign languages, art, sport and physical education.

Focused learning activities might be allocated in the order of 30% of curriculum time. Because they are relatively intensive and decontextualised, these kinds of activities are best scheduled for short and relatively frequent time slots — earlier in the day where possible. They will also occur from time to time as contingent 'focused learning episodes' within the context of other curricular forms.

Low levels of functional literacy development, particularly as observed in upper-primary and lower-secondary schooling, appear to have two main causes. The first involves difficulties with code-breaking (Shankweiler et al., 1999). Literate people must be able to decode and encode society's prevalent texts. When working with print-based texts, they must be familiar with the alphabet, and aware of letter-sound relationships (phonics) and how letters/sounds combine to form words. Such awareness is a requirement of the ability to spell, to recognise words, and to develop vocabulary. An awareness of the conventions of sentence and paragraph structure and text layout also supports code-breaking. However, we will have very limited success in teaching code-breaking if we do not program activities that resonate with the values, interests and purposes of students. The desire to support *deep meanings* drives the selection and interpretation of life experiences. If instruction in code-breaking makes no connection with a student's deep meanings, s/he will tend not to 'select' or internalise that experience.

Most primary-school teachers are familiar with a variety of focused learning activities that support the development of multiliteracies. The following examples identify appropriate activities for inclusion in programming for focused learning. Each will be far more effective when the stimulus or focus of the activity has a genuine connection with the students' own experience, interests or concerns.

The picture-word inductive model

Students study a variety of images and identify elements that they see in each. The teacher draws a line from each identified element to an area outside the image, then writes the descriptive word or phrase. The students repeat the word/phrase and spell it aloud. In time, an illustrated dictionary is created. Students then study the words — classifying them, identifying their phonetic and structural principles, using them to write titles, sentences and paragraphs, and then reading these new constructions (Joyce, Hrycauk & Calhoun, 2001). The teacher then presents students with the words out of context to see which ones they have retained.

Balanced reading to students

The teacher reads to students daily, 'thinking aloud' to model the use of specific comprehension processes and strategies. The students then practise the processes modelled using a new text (ibid.).

Regular writing from experience

Students dictate or write sentences about a picture, object or experience that they bring from their own world beyond school.

Cloze

Students complete a passage of text with certain words deleted. To be effective in improving reading comprehension (as distinct from testing it), the cloze exercise must omit 'structural' words rather than those that signify meaning. Such an exercise causes students to use context clues, read around, and think through to understanding.

The triarchic model

This model (Sternberg, Grigorenko & Jarvin, 2001) requires readers to think:

- analytically — judge, evaluate, compare and contrast, critique
- creatively — invent, discover, imagine, suppose
- practically — implement, use, apply, put into practice.

It might be applied to the teaching of reading through the following focused learning activities.

- Day 1: Set up a context for a particular story.
- Days 2–4: Work on vocabulary and spelling, combining analytical, practical and creative activities to enhance decoding skills and vocabulary acquisition.
- Day 5: Focus on reading the story.
- Day 6: Introduce analytical activities, using graphical aids to analyse characters, relationships and events.
- Day 7: Initiate creative activities and the use of descriptive language.
- Day 8: Launch practical activities related to the story.
- Day 9: Encourage students to connect the story to their own lives.

After Sternberg, Grigorenko & Jarvin, 2001.

Transdisciplinary investigations

Within the Key Abilities Model, transdisciplinary investigations are relatively complex active-learning units based on significant issues, tasks, questions or problems. Each investigation incorporates a variety of mandated learning outcomes or content from a variety of learning areas. These investigations might constitute about 40% of curriculum time. Transdisciplinary investigations not only help to make the large number of mandated outcomes or curriculum elements manageable and relevant, but also confine them so that they do not overrun the entire learning program.

Though transdisciplinary investigations are teacher-planned and closed-ended, they should be constructed in such a way as to lend themselves to high levels of student self-management with teacher support, rather than high levels of teacher-directedness and control. WebQuests (see, for example, Dodge, 2002), and more tightly structured forms of the problem-based learning described later in this chapter, are examples of programming strategies that may help some teachers more confidently move to a 'guide-on-the-side' teaching style. The integrating device for these investigations must be an issue of interest and substance rather than merely a theme, in order to generate a sense of purposefulness in the investigation and to stimulate genuine intellectual engagement. The steps outlined below (Fig. 6.3) provide guidelines for devising transdisciplinary units.

Figure 6.3: Planning transdisciplinary investigations

1. Identify a number of related learning outcomes or curriculum elements from various subjects or learning areas (bearing in mind the desired duration of the unit).
2. Identify a relevant, real-world context, question, purpose and/or task which would accommodate the target learning outcomes.
3. Identify the knowledge essential to achievement of the target outcomes and the overall unit task or purpose.
4. Identify curriculum elements (processes, genres and tasks) and other sub-skills essential to achievement of the target outcomes and the overall unit task or purpose.
5. Explicitly describe the performance criteria and standards that will be used to determine whether, or to what extent, students have successfully achieved the target outcomes.
6. Describe a sequence of activities that will contribute to learning related to the performance criteria and standards.
   Consider (1) student grouping/organisation, (2) individual differences in values, background, preferred learning style and (3) the need for activities relating to orientation, information-gathering, information-processing, assumption-testing, and knowledge construction, application, presentation, evaluation and reflection.
7. Identify and locate resources to support student learning and achievement of the target outcomes and the overall unit task or purpose.

It is important to recognise that many of the code-breaking and meaning-making strategies identified earlier as appropriate focused learning activities can be contextualised within transdisciplinary investigations. When engaging students with any texts, but especially with school-based texts and literacies, it is crucial to model the construction and deconstruction of texts to ensure that they become familiar with how the texts work and how meaning is gained. Wherever possible, comparisons should be drawn with experiences students may have had with similar texts from their own experience or worlds.

Programming for transdisciplinary investigations, then, should include provision of relevant genre guides, with time for discussion and joint constructions to model not only the 'product' but also the process and thinking that goes into construction. The structure of genre guides is exemplified below (Fig. 6.4). (A bank of such genre guides can be found at <www1.tpg.com.au/users/aseaton/kidsolutions/genres.htm>.)

Figure 6.4: A sample genre guide

Letter of invitation

Purpose

The purpose of an invitation letter is to ask a particular person, group, or group representative to attend an event. This model describes a more formal invitation — something that might be sent to a person who is not known personally.

Structure

An invitation letter has five basic parts:

1. Initial details, including sender's address, date, recipient's name and address, and greeting.
2. The writer introduces him or herself and/or the organisation or group they represent.
3. The invitation is made, including details about the nature and purpose of the event, and the time, date and place. It could include information about any other people who will be attending. It should make clear any cost involved, any items the person might need to bring, and any special role they might be asked to play.
4. A brief statement expressing the hope that the reader will attend, and prompting them to respond by a certain date.
5. Formal sign-off.

Language features and conventions

The invitation letter takes a polite but somewhat formal tone. It is not obviously persuasive, but not entirely neutral either, since there is generally a hope that the reader will want to attend. It is written in a mixture of present and future tenses. It makes use of full sentences and paragraphs. Linking words and phrases to do with description and explanation are used, such as 'it will be', 'we hope that', 'after', 'during', 'in order to'.

Short example

Madeuptown Primary School
Sample Street
MADEUPTOWN 4890
17 September 2003

Ms Tran Ngo
President
Madeuptown Chamber of Commerce
35 Business Street
MADEUPTOWN 4890

Dear Ms Ngo

My name is Kim Youngperson, and I am writing on behalf of my fellow students at Madeuptown Primary School. We would like to invite you, or a representative of the Chamber of Commerce, to attend a special event to be held at our school in a few weeks' time.

Some students at our school have been working on a project to devise solutions to the problem of finding a job after finishing schooling. Our special audio-visual presentation, to be shown in the school library at 11 am on Tuesday 2 November, will outline the findings of our investigation. It will include a variety of proposals for generating jobs for local young people.

During the program, several students will receive community service awards from Mayor Con Roarty. Following the proceedings, a light morning tea will be provided.

You are among a number of local community leaders we are hoping will attend the presentation. We would be pleased if you could let us know if you will be able to attend by phoning the school on 4455 6677 before Friday 29 October.

We look forward to seeing you there.

Yours sincerely

Kim Youngperson

Kim Youngperson

Rubrics provide valuable support to genre guides. They are used to identify the performance criteria for a task, and also to describe the *quality* of the elements of performance for each criterion, along a continuum of levels. As a result, students understand not only what *dimensions* of performance will be judged, but also what *characterises* performance at various levels of quality. Rubrics are most appropriate for use with a wide variety of genres and other relatively complex practices and tasks. While they are less useful for highly skill- or knowledge-specific learning tasks, they certainly support learning and assessment of generic curriculum elements drawn from a wide variety of learning areas. An example is provided by the persuasive letter rubric below (Fig. 6.5). (A small bank of such rubrics can be found at <www1.tpg.com.au/users/aseaton/kam/rubrics.htm>.)

Figure 6.5: Rubric setting out performance criteria and standards for persuasive letter-writing

Persuasive letter rubric

CRITERIA	ELEMENTARY	DEVELOPING	CONSOLIDATING	PROFICIENT
Language correctness	I have many errors in my spelling, punctuation and capitalisation, OR Many of my sentences are awkwardly written, which makes them hard to understand.	I have some errors in my spelling, punctuation and capitalisation, OR Some of my sentences are awkwardly written, which may confuse or distract the reader.	I use mostly correct spelling, punctuation and capitalisation. I use mostly well structured sentences.	I use language correctly and effectively.
Presentation	My letter is not suitably organised and set out, OR My letter is messy and very difficult to read.	My letter is a bit disorganised, OR My letter is a bit rough and difficult to read.	My letter is quite well organised, neatly presented and easy to read.	My letter is well organised in the appropriate layout, and is neat, attractive and easy to read.

CRITERIA	ELEMENTARY	DEVELOPING	CONSOLIDATING	PROFICIENT
Language features	I use few language features appropriate for a persuasive letter.	I use several language features appropriate for a persuasive letter.	I use most of the language features appropriate for a persuasive letter.	I include all of the relevant contact and address details. I greet the reader, and sign off. My language is relatively formal, using full sentences and paragraphs, mostly in present tense. I use words relating to what I think and what I feel. I often use linking words to develop my thinking.
Point of view	I do not state the issue or subject clearly, OR I do not attempt to state my position about the issue.	I state the issue or subject simply, but I do not clearly state my position.	I state the issue or subject simply, and I present my position or point of view.	I clearly state the issue or subject, and I present my position in relation to other possible points of view.
Arguments	My comments about the issue are confusing or inadequate.	My arguments are confusing or contradictory, OR I present no evidence, reasons or examples to support my view.	I present my own arguments in a logical order, along with evidence, reasons and/or examples.	I present my arguments in a logical order, along with evidence, reasons and/or examples. I also respond to opposing points of view.
Summing up	I do not attempt to sum up my position.	I simply restate my point of view.	I briefly review the main arguments for my point of view.	I briefly review the main arguments for my point of view, along with their implications for action.

Rubrics have some significant benefits as pedagogical and assessment tools. They are easy to use and understand (as long as the language used is at an appropriate level), and they make teachers' expectations of students very clear. They provide students with clear feedback about how they can improve their performance. Because of their instructive value, relevant rubrics should be made available to students *before* they undertake a particular task. When programming for transdisciplinary investigations, it is beneficial to involve students in the joint creation of rubrics for genres and tasks that are central to the investigation.

Community development

Reading and writing practices in primary schools still have a long way to go in terms of providing students with opportunities to use and analyse texts in real contexts and for real purposes. The situation is much worse in secondary schools, which focus even more narrowly on school-based literacies (Green, 1998), and reflect a much stronger alignment with the transmission model of learning.

An ideal way to program for literacy learning that has significance beyond the school gate is to organise student involvement in one or more community development activities. These activities are real-life, multi-participant projects with consequential public outcomes. They are activities which enrich the school community or, preferably, outside-of-school community in significant ways.

Community development activities provide authentic contexts for complex role performance and application of a wide variety of processes and understandings.

Students, parents and community members, in addition to school personnel, can play a role in the selection, establishment, and ongoing management of these activities. They might account for around 15% of curriculum time, perhaps scheduled for two or three afternoon sessions each week.

There are many possibilities for community development activities that draw upon the resources of the school, the local community and the community at large. The number, type and scale of activities selected will be influenced by a variety of factors, including the age of students and the availability of human and other resources. A few examples of such activities are:

- learnscaping — the design, construction and maintenance of one or more environmental enhancements within or near the school grounds, such as a permaculture garden, bush regeneration, outdoor 'classroom', amphitheatre, bush-food garden, organic market garden or maze
- small commercial enterprises, such as production and marketing of screen-printed T-shirts, a community newspaper or a school shop
- recycling and other environmental management programs
- service learning projects such as 'adopt a grandparent' (writing to, visiting, reading to, or performing for residents of aged-care facilities)
- developing a website to promote/showcase the school, or some other organisation or interest group.

Time and circumstances permitting, students can be called upon to undertake a small number of significant tasks in order to fulfil their roles in an activity. In the complex and real-life contexts of community development activities, a wide variety of technological and visual literacies come to the foreground, such as engagement with email, web pages, brochures and advertisements. As in the other curricular forms, the learning and assessment of the selected tasks can be supported by the use of genre guides, rubrics and focused learning episodes. The steps below provide guidelines for devising community development activities.

Figure 6.6: Devising community development activities

1. Identify the variety of roles and the generic curriculum elements (procedures, genres or tasks) which it might be useful and appropriate for students to engage in.
2. Explicitly describe the performance criteria and standards that will be used to determine whether, or to what extent, students have successfully demonstrated control over the procedure, genre or task.
3. Identify, locate and secure access to resources (including human resources) to support student learning and performance of the target procedures, genres and tasks, and clarify the roles that students will undertake.
4. Negotiate the role(s) that individuals and/or groups will undertake, and appropriate periods of time for task completion.
5. Determine timelines and methods for assessment of student performance of the target procedures, genres or tasks.

Personal learning projects

Personal learning projects are largely student-initiated and -directed. They address an identified problem or purpose. The intent of this curricular form is to enable students to explore 'real' issues. Personal learning projects support the development of active literacy. Students make purposeful use of a variety of out-of-school genres, procedures and/or tasks. They also support the development of critical literacy, requiring students to question and analyse the assumptions and biases in the 'texts' and points of view associated with real-world issues, while they try to design or propose solutions.

Personal learning projects are opportunities for students to:

- choose, define and explore a real-world need
- develop, evaluate, explain and (where possible) pursue a solution, a position or a course of action in relation to that need.

The topic, and the generic curriculum elements to be incorporated, are negotiated by the teacher with either the whole class, groups or individuals. Personal learning projects might constitute about 15% of curriculum time, perhaps programmed as three or four one-hour sessions spread across each week.

Teachers can support students to follow nine basic but flexible steps in the implementation of problem-based learning activities (Fig. 6.7).

Figure 6.7: Implementing personal learning projects

1. Negotiate the need or issue that will be addressed (expressed as a question).
2. Clarify expectations and assessment procedures.
3. Identify what is known and what information is required.
4. Gather the required information.
5. Design responses or solutions.
6. Make, apply and/or propose the responses or solutions.
7. Evaluate the responses or solutions.
8. Present the responses or solutions.
9. Submit material for assessment.

The KidSolutions website <www1.tpg.com.au/users/aseaton/kidsolutions> provides a detailed elaboration of these procedures, with an extensive set of further guidelines and resources to support teachers and students engaging with problem-based learning projects. The limits of space allow just a few programming pointers here.

Personal learning projects can be organised in a number of ways. The whole class could undertake a project jointly. Alternatively, small groups or individuals could explore different issues. (The pros and cons of these alternatives are described on the KidSolutions website.) I recommend that teachers begin by guiding students through several whole-class projects. This will provide several opportunities to model the steps, the assumptions and the ways of operating that are involved.

Remember that opportunities for student-initiated and -managed learning may be rare and unfamiliar for teacher and students alike. Early in their school life, students typically

conclude that their role in school is "doing what is expected and working hard" (Loughran & Northfield, 1996:126), and that schools traditionally "reward with good grades those students who assume an orientation towards merely reproducing the meaning of learning materials" (Cano-Garcia & Hughes, 2000:425). So, while many students will take to personal learning projects like ducks to water, others will initially feel disoriented and/or resistant. Doing whole-class projects at first will help to reorient students to new ways and motivations for learning, and provide teachers with opportunities to gauge the scaffolding and encouragement that each student will need. Teachers will be able to make it clear that personal learning projects are *not* about producing a school-based genre called a 'project'. They are not about gathering information and a few pictures on a 'topic' (such as 'koalas') and submitting it for a teacher audience.

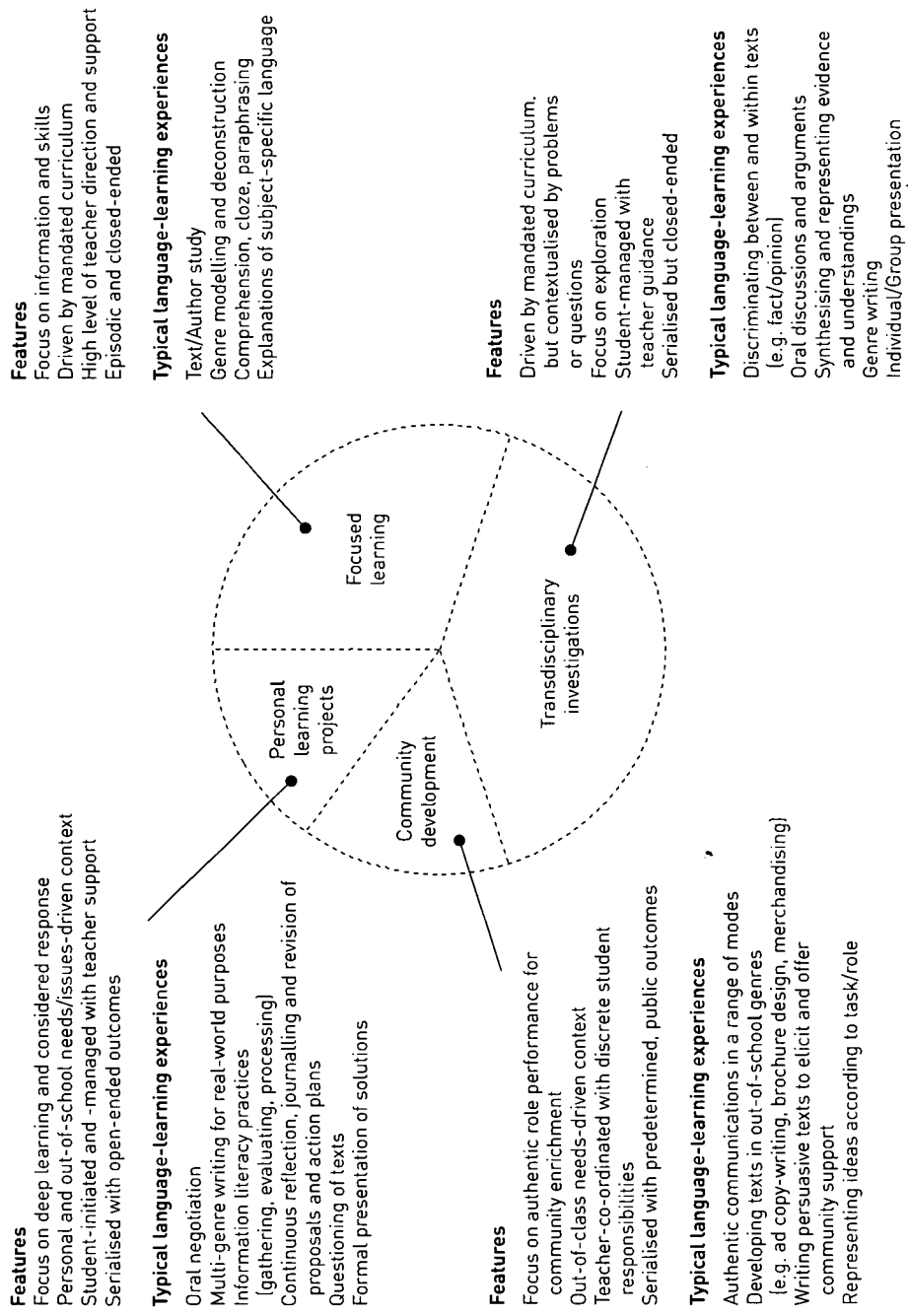
In each personal learning project, a selection of 'out-of-school' tasks is negotiated with students. At the conclusion of the project, students submit evidence of successful task completion in a portfolio for assessment, along with self-assessment and peer-assessment forms (see KidSolutions for more on assessment guidelines). Later, when students are working more often in groups or as individuals, the types of tasks that they might engage in may become quite extensive. Students can gain independent access to many genre guides directly from the KidSolutions website as they need them. However, teachers will need time to prepare additional genre guides and learning and assessment rubrics to support the variety of student tasks.

Personal learning projects provide a wonderful opportunity to use technology as a 'door' to the real world, breaking down the traditional isolation of the classroom, opening up information, presentation and communication avenues, and empowering learners in their pursuit of the real-life aims that they see as meaningful and purposeful. The use of computer technology is more than just appropriate in personal learning projects; substantial access to networked computers for at least one session each week is *essential*, particularly if students are working individually or in small groups on different problems.

Summarising the four forms

Fig. 6.8 provides an overview of the features of each curricular form, and some of the corresponding language-learning experiences that might be programmed.

Figure 6.8: Overview of the four curricular forms



Programming sample

I do not recommend that primary-school teachers start to program for each of the four curricular forms all at once. It is advisable to make a start on perhaps two types of activity, then begin to explore another when confidence has been developed and most issues have been resolved. Active and complex learning activities might be allocated an hour or more at a time, with shorter periods devoted to more focused (or teacher-directed) learning activities.

Some scheduling guidelines for the four forms have been suggested above. Different timetabling constraints apply in secondary schools. Teachers can individually schedule limited aspects of the four curricular forms within the time scheduled for each of their classes. However, the grid below (Fig. 6.9) offers an example of what an early secondary-school week might look like once each of the forms have been fully integrated within the learning program. To maximise teacher expertise, I have grouped transdisciplinary investigations into two broad areas: People and Cultures (P&C); and Environments and Technologies (E&T). Focused learning time is signified by learning area.

Figure 6.9: Indicative early-secondary student timetable incorporating the four curricular forms

<table>
<tr><th></th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th></tr>
<tr><td rowspan="2">9:00</td><td rowspan="2">Maths</td><td rowspan="2">Personal learning projects</td><td>LOTE</td><td rowspan="2">Transdisciplinary investigations (P&C)</td><td rowspan="2">Transdisciplinary investigations (E&T)</td></tr>
<tr><td>Maths</td></tr>
<tr><td>10:10</td><td>Recess</td><td>Recess</td><td>Recess</td><td>Recess</td><td>Recess</td></tr>
<tr><td>10:30</td><td>Transdisciplinary investigations (E&T)</td><td>Transdisciplinary investigations (E&T)</td><td>Transdisciplinary investigations (P&C)</td><td>Community development</td><td>Transdisciplinary investigations (P&C)</td></tr>
<tr><td rowspan="2">11:40</td><td rowspan="2">Personal learning projects</td><td rowspan="2">Visual Arts/ Music (half group each)</td><td rowspan="2">Design & Technology</td><td rowspan="2">Community development</td><td>LOTE</td></tr>
<tr><td>Phys. Ed.</td></tr>
<tr><td>12:50</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td></tr>
<tr><td>1:50</td><td>Transdisciplinary investigations (P&C)</td><td>Sport/Options</td><td>Transdisciplinary investigations (E&T)</td><td>Community development</td><td>Personal learning projects</td></tr>
</table>

In primary schools the forms will evolve to look a little different for each teacher and class, and in secondary schools a little different from school to school. However, those students who have opportunities to experience such a rich curriculum program will surely be better able to develop the six key abilities, including the active and critical literacy required to take charge of their own minds and to prosper in the world beyond school.

References and sources

Association for Supervision and Curriculum Development (1999) *The Human Brain: An ASCD Professional Enquiry Kit*. ASCD, Alexandria, VA.

Cano-Garcia, F & Hughes, E (2000) 'Learning and Thinking Styles: An Analysis of Their Interrelationship and Influence on Academic Achievement'. *Educational Psychology* 20 (4).

Dodge, B (2002) 'The WebQuest Page'.
http://webquest.sdsu.edu

Green, P (1998) 'The Journey from Primary to Secondary School: The Literacy-related Demands in Transition'. *Australian Journal of Language and Literacy* 21 (2).

Joyce, B, Hrycauk, M & Calhoun, E (2001) 'A Second Chance for Struggling Readers'. *Educational Leadership* 58 (6).

Loughran, J & Northfield, J (1996) *Opening the Classroom Door: Teacher, Researcher, Learner*. Falmer Press, London.

Seaton, A (2002a) 'The Key Abilities Model: Curriculum and School Organisation for a Society of Autonomous Learners'. Andrew Seaton's Education Website, October.

Seaton, A (2002b) 'Reforming the Hidden Curriculum: The Key Abilities Model and Four Curricular Forms'. *Curriculum Perspectives* 22 (1).

Shankweiler, D, Lundquist, E, Katz, L, Stuebing, K, Fletcher, J, Brady, S, Fowler, A, Dreyer, L, Marchione, K, Shaywitz, A & Shaywitz, B (1999) 'Comprehension and Decoding: Patterns of Association in Children with Reading Difficulties'. *Scientific Studies of Reading* 31.

Spady, W (1993) *Outcome-based Education*. Workshop Report No. 5, ACSA Workshop Report Series. Australian Curriculum Studies Association, Canberra.

Sternberg, R, Grigorenko, E & Jarvin, L (2001) 'Improving Reading Instruction: The Triarchic Model'. *Educational Leadership* 58 (6).

About the author

Andrew Seaton has taught for many years as a secondary English and Social Sciences teacher, and as a primary teacher, in several states and territories of Australia. In recent years, he has worked in school- and district-based leadership, support and advisory positions relating to curriculum reform, and provided private consultancy services. He is currently engaged in PhD research with Deakin University, exploring issues relating to shifts in educational policy, culture and practice to support a learning society. Andrew's website is at <www1.tpg.com.au/users/aseaton>.

7 Literacy programming when English is a second language

In this chapter, VANESSA SAMMUT provides an insight into the ways in which she programs literacy-learning experiences for early-years ESL students.

Background: Language for survival

In order to understand why I program and how I program, I think it's vital to have some understanding of the background of the students I teach. The outer-suburban primary school where I work has over 550 students. Almost all of the students (96%) are ESL learners who come from non-English-speaking backgrounds. Due to the high percentage of Chinese, Vietnamese and Khmer speakers in the community, students can easily participate in everyday social activities — buying an item from their local corner shop or playing with their next-door neighbour — by communicating in their first language.

It is in Kindergarten that many children are first expected to communicate in English. School becomes a place where they are exposed to and immersed in the English language, and where they learn how to speak in English.

Within the school are many specialist ESL and community-language teachers who support classroom teachers and ESL students. Each ESL teacher has a special role aimed at catering to the needs of ESL learners at a particular phase of language acquisition. I work with Early Stage 1 students (Kindergarten), or Phase 1 students who are at the very early stages of learning a second language. In order to support my students in all aspects of literacy, I work in the mainstream class in a team-teaching situation, withdrawing small groups of students across the grade and focusing specifically on oral-language development.

Team teaching

Working in a team-teaching situation gives me an opportunity to support the classroom teacher by sharing ESL strategies and methods — for example, demonstrating how to use simplified and explicit instructions, making visual resources to support teacher instruction and student understanding, and modifying and altering learning activities to meet learners' needs. In this school, it is vital for all mainstream teachers to be ESL teachers and to implement ESL methodology in the classroom.

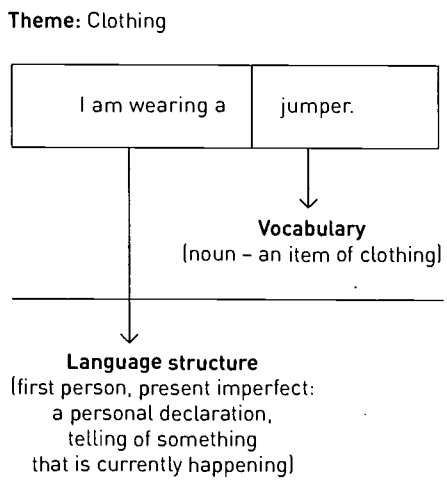
Withdrawal teaching

To support students who are having difficulty coping in the mainstream Kindergarten class, I withdraw two small groups across the grade. This method provides students with a very safe and secure learning environment — a crucial condition for all ESL learners — and encourages them to take risks that they would not normally take in the mainstream classroom. Withdrawal gives students an opportunity to work in small-group situations and encourages them to take part in interactive learning activities and oral discussions. The focal aim of the withdrawal program is to teach students how to communicate in English by using everyday survival language.

Approach to programming

Vocabulary and language structures are key aspects of my program. Children in the very early stages of learning a second language have very limited vocabulary in survival language themes such as 'school', 'clothing' or 'food'. Many of the students I teach can identify common items in their first language but do not know the corresponding words in English. So, before I even begin to teach a unit of work, it is essential that I first teach two important layers of language in relation to the proposed theme. The first and most important is the vocabulary layer. The second is the language-structure layer. Fig. 7.1 provides a simple example.

Figure 7.1: Two layers of language for ESL instruction



The importance of field-building

Teaching the vocabulary is the first part of building the field — developing an awareness of what the language is *about*. I implement a number of vocabulary games such as picture bingo, matching word to picture, vocabulary posters, labelling pictures, vocabulary concentration/snap and, more recently, an innovation I call 'I don't know'. Many of my students are often shy and timid — very reluctant to ask questions when they are in doubt. I invented the 'I don't know' vocabulary game to address this reticence. To play the game, I collect or create picture cards of various things — for example, body parts, household objects or animals. I then display the picture cards and ask students to identify the things that they cannot name in English by pointing to the card and saying "I don't know what this is". If no one else can identify the thing, I tell the students what it is and give the card to the student who could not identify the picture. I then replace the cards and repeat the process. The student with the most cards is the winner of the game.

These types of activities give ESL learners the opportunity to learn and practise vocabulary in appropriate contexts. When teaching vocabulary, it is vital to use visual aids. ESL learners rely heavily on visual stimuli, especially when learning new words. In order for ESL learners to learn a new word it is therefore important that they can associate the item or concept with a visual representation.

I always include a 'vocabulary/language structures' section in a language-learning program. I list all of the important words and language structures that must be learned in order to explore the central theme or unit of work successfully. I also include a list of learning activities that will help students to learn and practise the vocabulary. The more vocabulary activities the better — especially everyday colloquialisms, jargon and idiomatic expressions and phrases. ESL learners generally have great difficulty understanding words or phrases that are associated with extemporised thinking.

Teacher scaffolding

My students require a lot of support, especially when they are in the early stages of schooling. To provide that support, I have adapted the three-level language support system in my methodology and programming. The three levels of support are *controlled, guided* and *independent*. Each level is a part of a framework that helps to move the learner from teacher-directed to student-directed learning.

During the controlled stage, learners are very dependent on the teacher. They are exposed to explicit language that is modelled by the teacher. They are shown how to participate in learning activities, and how to complete set tasks. This stage is very teacher-driven and gives learners the opportunity to learn language by listening and watching.

During the guided stage, the teacher is still giving the students the support they require by implementing supportive scaffolds (visual stimuli, word banks, picture cards etc.). However, students are encouraged to practise the modelled language structures and

vocabulary in a comfortable and non-threatening learning environment. In order to support learners in this stage, it is essential that they have the opportunity to participate with a partner or small group in communicative activities. Communicative activities are designed especially for ESL learners. They are often visual, encouraging discussion and participation, and are levelled according to language ability. Examples of communicative activities include sequencing pictures to retell a familiar event or story, barrier games (where an object is hidden from the view of a student, who must identify it on the basis of a partner's description) and information gap.

To move learners to the independent stage, it is important to remove supportive frameworks gradually. By doing this, learners will gradually develop control over the lexical and syntactical demands of the focus area. To extend the earlier example, they might apply a newly learned word (jumper) to a newly learned sentence organisation (simple interrogative) to produce: *Are you wearing a jumper?*

My programs categorise learning experiences under these three levels of support. This helps me to ensure that my learning activities include all levels.

Planning the program

It is important to consider the *audience* of a learning program — the people who will need to view and see it. If I am the only one who will use and view my program, I tend to use my own symbols and codes. For example, I might use 'T' for talking, or a star to signify an assessment task. However, programs are professional documents, so I believe it's vital that, if another teacher picks up the program, they are able to follow it without being puzzled or developing the wrong impression.

I try to keep my program simple, with just enough detail to ensure that another reader is capable of understanding and following it. We teachers are very busy people and time is something we struggle to find. Realistically, it is impossible to write a finely detailed lesson plan for each learning session. I also recognise that lesson plans are often difficult to stick to, given that so many external factors may disrupt or alter a set lesson plan. I prefer to have an idea of what I want my students to achieve during the session and then go with the flow.

Accountability and expectations

Before I devise a program, it is essential that I address the aims and requirements of the school's programming policy. This necessity can be distilled into four key questions:

- What does the school expect me to teach my students?
- What do I have to include in my program?
- What assessments will I have to make?
- What resources should I be using?

Departmental requirements and expectations must also be addressed. I need to ensure that I am using the mandatory syllabus and curriculum documents. These are like branches from which my goals and lesson plans stem.

Organising a program

To me, programming is like a huge jigsaw puzzle; each piece is essential and should link with others in order to achieve the big picture. I use the following key organisers.

Term/Duration
My programs vary in length; one program may go for a full term, whereas another might run for five weeks.

Stage
For tasks to be appropriate, it is critical to consider the stage at which the students are working.

Learning areas
Apart from English, it is necessary to identify learning areas that will be integrated into the program.

Language focus
This is best identified by genre. Predictable and repeatable uses of language can be built up around descriptions, recounts, procedures etc.

Outcomes
These will be specific and individual. I identify appropriate outcomes from the *ESL Scales* and *ESL Framework* documents, as well as stage outcomes from the NSW English document. I find it easier to categorise outcomes under the three strands of literacy (Reading, Writing, and Talking and Listening). It is very important that I use outcomes from the *ESL Scales*. This document is designed especially for ESL learners. It ensures that ESL learners develop the appropriate literacy skills, language structures and strategies to acquire a second language.

Language structures and vocabulary
I always list the vocabulary that students will need to learn and understand in order to grasp key factors and concepts for future lessons. I also include the language structures that will need to be modelled and introduced. This segment is vital for ESL and NESB students.

Teaching and learning activities
I briefly list the teaching and learning activities in a way that I can follow and understand — a great amount of descriptive detail isn't necessary. I categorise the activities according to level of teacher support (controlled/guided/independent) and strand of literacy (reading/writing/talking and listening).

Assessment
I think it is important to list assessment activities and strategies. For example, to assess vocabulary development, I might use a listening activity: students would be given pictures of various items and I would give them oral directions such as "Colour the jumper blue" or "Circle the skirt".

Evaluation
In the course of a program, I often jot down ideas for future lesson plans and programs. When a program ends, I use such notes to reflect upon the program's strengths and weaknesses, and to consider ways of building any learnings into new programs.

The programming process

As far as I'm aware, there is no magical formula or step-by-step procedure on how to program successfully for ESL students. Through personal experience, I've discovered programming to be a trial-and-error process. Some programs will work; others will need to be modified or abandoned. The good news is that programming tends to improve with time; with each new program, the practitioner seems to bring a stronger understanding and a clearer vision of expectations and student needs.

Since my timetable changes each term, I only ever plan term by term or unit by unit. I prefer to plan for short periods only, continuously monitoring student needs and modifying the goals and tasks accordingly. When I program, I go through a series of steps or stages — each one crucial to success.

Step 1
Gathering ideas and information

If a program were a house, this stage would be the laying of its foundations. One of the first and most important aspects of programming is finding out the needs of the students. In order to do this, I begin talking with the classroom teacher to find out what's been happening in the classroom. I might ask questions such as the following.

› What language do they need to learn?

For example, they may need to learn specific:
- vocabulary
- language structures.

› What learning experiences do they need to experience?

For example, they may benefit from:
- interacting in small-group discussions
- sharing news with the class
- playing hopscotch.

› What skills do they need to acquire?

For example, they may need support to learn:

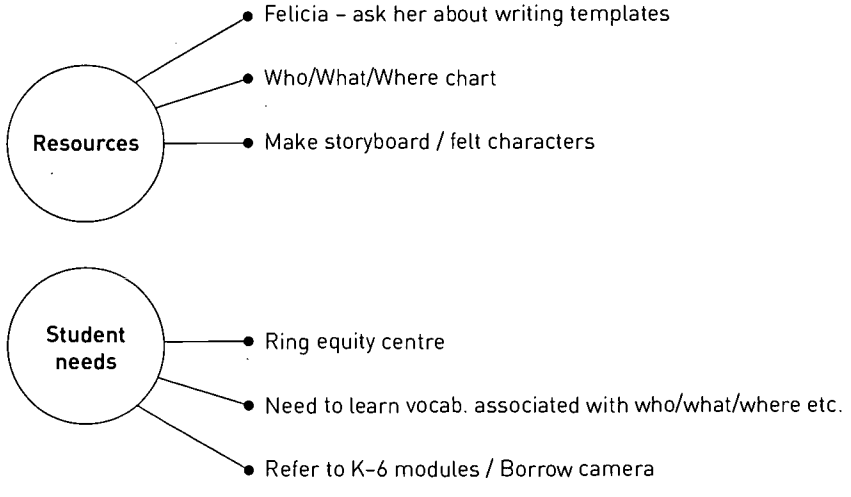
- how to listen and complete simple instructions
- how to describe a familiar object
- how to recount a familiar and recent event
- when to contribute to class discussions (pragmatics).

I often consult my ESL teaching colleagues to discuss the needs of my students. This gives me the opportunity to seek good advice, develop some great ideas for learning activities and collect a few resources. I am a fairly new teacher, so talking with other ESL teachers is always beneficial and opens up doors for my personal development. If I am still in doubt about where I'm heading, I ask my supervisor for constructive criticism and overall guidance.

Step 2
Transferring ideas into concrete form

During preliminary discussions I often jot down ideas, contacts, locations of resources and anything else I consider important. This process is similar to creating a concept map (Fig. 7.2), and becomes a plan of my program. Such a 'map' allows me to move the programming process from an abstract stage to a more concrete stage. Importantly, this step ensures I don't forget anything important, and gives me a direction to follow.

Figure 7.2: Recording programming concepts



Step 3
Gathering resources

This stage is like going on a treasure hunt: you're in search of useful, convenient and practical resources, teaching aids and ideas for lesson plans and learning experiences. First, I gather any resources that I already have; next, I try to find resources recommended by colleagues. I also look in the school library or ESL resource cupboard. If I haven't found as many resources as I'd hoped, I may go to a community library, or contact the State Equity Centre or district office. Once all the resources are to hand, I

refer to the relevant curriculum documents as I sift through each resource or book and tag pages that are relevant and may be useful.

During this stage I find it helpful to use a program checklist (Fig. 7.3). Using a checklist not only helps me to organise my ideas logically, it makes writing up my program easier. The checklist is also a great time-saver because it ensures that I write down page numbers and important notes, so I can locate information very quickly when it's needed.

Figure 7.3: Scale representation of a checklist that can be used when gathering and organising resources for an ESL program

Teacher/s	Term 1 2 3 4	Stage ES1 1 2 3	Language focus

	English	Maths	Society/Env.	Science	Arts	Health/ Development
Topic						

Learning outcomes

Talking & Listening						Reading						Writing					
K-6	Pg	ESL	Pg	Step	Pg	K-6	Pg	ESL	Pg	Step	Pg	K-6	Pg	ESL	Pg	Step	Pg

Learning activities

Talking & Listening	B	CD	Oth	Reading	B	CD	Oth	Writing	B	CD	Oth

Resources

Books	O	L	B	Curriculum documents	O	L	B	Resources/Kits	O	L	B

Assessment activities	T&L	R	W

Note: **K-6** = English K-6 Syllabus **ESL** = ESL Scales **Step** = EST Steps **B** = borrowed **CD** = curriculum document **Oth** = other source **O** = own **L** = library

Step 4
Putting it all together

This stage is like solving a puzzle; it's where I link and intertwine all the different parts of my program and connect it together so it becomes a complete piece or whole. When setting out my program, I use a template, provided as Appendix 7.1. I've found this template easy to use and to follow. Like all good program templates, it is a combination of pro formas that I have borrowed and adapted over my teaching career to date.

Step 5
Implementation

During implementation, I find it useful to jot down personal comments on how the program is going — for example, highlighting activities that students find engaging and enjoyable, or that lead to significant student progress, or that students find unexpectedly confusing or difficult. After two weeks I evaluate the program to see if anything needs to be modified or added.

Sample ESL program

Term: 1 Duration: 8 weeks Stage: ES1 Phase: 1		KLAs/Theme: English (Recounts)		Language focus: Recounting	
Talking & Listening outcomes	**ESL Scales**	**Reading outcomes**	**ESL Scales**	**Writing outcomes**	**ESL Scales**
Students:		**Students:**		**Students:**	
› understand simple oral recounts	1.2.1	› demonstrate reading behaviour (point to words)	B1.4.1	› use drawings to recount events/ experiences and share drawings with teacher and peers	B1.5
› respond to simple questions based on familiar recounts	1.2.2	› gain simple information from illustrations	B1.15		
› recognise and understand content words related to recounts	1.3.2	› identify some letters, sounds, words in familiar recounts	1.7.5	› label familiar pictures with teacher guidance	1.9
› pronounce common and familiar words associated with recounts	1.3.7	› sequence parts of a familiar recount (pictures/sentences)		› leave spaces between words and write in left-to-right sequence	1.11.2
› give a simple recount based on a familiar experience.	2.3.1	› read personal recount independently.	1.5.8	› copy simple/repetitive modelled sentences	1.9.4
				› write a simple, familiar recount independently using a template.	1.12.3

Language structures
Who/What/Where/When: On the weekend / Last Sunday / I went to / I had fun
Grammar: nouns (where) / pronouns (who) / action verbs (what/events) / adverbs (when)
Tense: past

Vocabulary
who / what / where / when / movies /city / beach / park / last night / yesterday / on the weekend / Mum / Dad / brother / sister / cousin / grandma / grandad

Activities
grids / what's missing? / concentration / treasure hunt / bingo / snap / categories

Strand	Teaching and learning experiences	C	G	I	Resources
Talking & Listening	Teach the vocab. for who/what/where/when through familiar nursery rhymes.	★			› Who/What/When/Where picture chart
	Teach/Model how to play vocab. games. / Use www chart to model a simple oral recount.	★			› Flash/Picture cards
	Students use the www chart give a simple oral recount. / Students make their own chart.		★		› Storyboard/Characters
	Students answer simple questions based on short recounts. / Students give a simple recount independently.			★	› Writing templates
Reading	Show students how to sequence pictures relating to a familiar experience. / Show how to retell the experience using the pictures for prompts.	★			› Whiteboard / Coloured markers
	Read short recounts aloud, and model decoding strategies.		★		› Coloured pencils
	Student pairs sequence recount pictures and retell the story to their partner. / Students match word to picture. / Students read their own recount independently.			★	› Worksheets
Writing	Model how to write simple recounts. / Encourage students to refer to www charts to locate words. / Model writing conventions.	★			› Pictures (picture talks)
	Use cloze recount worksheet: students write a simple recount with template support.		★		› Book tack
	Students write a short recount independently.			★	› Scrap books
					› Magazine pictures

Assessment (formal/informal)
Record each student's oral recount / transcribe / checklist (oral assessment)
Writing sample (recount) / anecdotal notes (writing)
Picture checklist (vocabulary)

Evaluation
Did learning activities encourage student participation?
Did I sequence activities and experiences appropriately?
Where do I go from here? What changes can be made for next time?

Note: C = controlled, G = guided, I = independent.

References and sources

Australian Education Council (1994) *ESL Scales*. Curriculum Corporation, Melbourne.

Board of Studies NSW (1996) *English K–6 Syllabus*. Office of the Board of Studies NSW, Sydney.

About the author

Vanessa Sammut teaches at Lansvale Public School in Sydney's south-west. She is a qualified ESL teacher with a graduate certificate in TESOL. During her teaching studies, Vanessa travelled to China to teach English to primary-school children — an experience she hopes to repeat in other parts of the world.

Appendix 7.1: ESL programming template

Term: Duration: Stage: Phase:		KLAs/Theme:		Language focus:	
Talking & Listening outcomes	**ESL Scales**	**Reading outcomes**	**ESL Scales**	**Writing outcomes**	**ESL Scales**

Language structures	**Vocabulary**	**Activities**

Strand	**Teaching and learning experiences**	C	G	I	**Resources**
Talking & Listening					
Reading					
Writing					

Assessment (formal/informal)	**Evaluation**

Note: C = controlled, G = guided, I = independent.

8 Practical literacy programming for students with special learning needs

In this chapter, LORRAINE GRAHAM, JEANETTE BERMAN & ANNE BELLERT provide practical guidance for teachers in regular classrooms whose literacy programming includes students with identified disabilities, focusing on the value of the individual education plan (IEP).

Background

In recent years the worldwide movement towards integration and inclusion has made special-education practices — which aim to facilitate the effective teaching of all students in regular classrooms — increasingly routine. The appropriate education of students with disabilities, particularly those with learning difficulties, behaviour problems, or mild intellectual disabilities, is now commonly considered the responsibility of classroom teachers (Pearson, 2000; Weishaar, 2001). Today's primary teachers are expected to be actively involved in the referral and assessment of students, in learning support team meetings, and in the development and implementation of *individual education plans* (IEPs) for students with disabilities. This chapter takes a practical look at IEPs — what they are, why they are developed, and how classroom teachers can program individually and inclusively to cater for the learning needs of all students.

Understanding individual education plans

Individual education plans provide a crucial mechanism for planning and documenting how the educational needs of students with disabilities are met. Historically, IEPs emerged from the individual focus of special education on students' strengths and weaknesses, as well as instructional practices such as task analysis and the use of long- and short-term behavioural objectives. The process of developing and implementing individual plans has evolved over time and is shaped by contextual factors such as the severity of an individual's disability, the educational setting, and the necessity for the involvement of other professionals like physiotherapists and speech pathologists. Consequently, there is no one correct way to develop and to carry out an IEP. In fact, there is not even consensus in the use of the term. Individual plans for students with disabilities wear a range of labels which reflect the different purposes of these documents across Australia: negotiated curriculum plans, individual learning plans, individual literacy plans, individual family service plans, and individual behaviour plans.

Just as a classroom teacher develops a class program and uses it as a working document to guide daily teaching and assessment practices, support teachers develop IEPs that fulfil the same purpose but are focused on the specific needs of individual students. Individual education plans make explicit the decisions that have been made about a student. Such decisions are the result of the collaborative process between the support teacher, class teacher, parent and any other involved personnel. Collaboration is an essential dimension of effective teaching programs for students with learning difficulties.

In Australia, the format of the IEP is somewhat more flexible than in other settings, and reflects the particularities of the school and community context. Essentially, each IEP contains some definition or description of the student's learning needs. This may be in the form of present level of functioning, or outcomes to be achieved, as well as specific difficulties that need to be addressed. A recent move in NSW is to insist that IEPs link directly to the curriculum framework, and specify syllabus outcomes that are the focus of the learning experiences for students with disabilities in the classroom.

Why are IEPs used?

The purpose of an IEP is to identify an individual's learning needs and to specify how these learning needs will be accommodated during the student's education. The term itself gives a clear indication of purpose — to link the *individual*, the *education* and the *planning* process into a cohesive pedagogical approach that results in improved learning outcomes.

An important function of the IEP is to state the *individual's* learning needs specifically. For example, an IEP should specify the particular aspects of literacy that a student needs support to work towards, and how the student might achieve these agreed-upon outcomes. The focus on the individual in the IEP is evident through the inclusion of statements about the student's strengths, interests, learning characteristics and current level of performance.

Developing and implementing an IEP is a professional opportunity for a group of educators to plan a purposeful, collaborative and strategic approach to the education of students with special needs. The IEP identifies mutually agreed *educational* goals that are presented in terms of precise curriculum outcomes. It also records suitable teaching and learning activities, and describes the assessment and evaluation processes to be used. IEPs provide a clear focus for instruction and serve as an accountable means of linking extra funding support to the class curriculum. With the current emphasis on accountability in education, it would be naïve to deny that one of the main purposes of IEPs is to specify how extra individual funding is used to support students' learning needs. Governments and funding agencies demand the kind of planned implementation and evaluation of learning programs that individual education plans provide.

In essence, an IEP is a formalised means of *planning* focused on how to meet an individual's particular learning needs. The process requires collaboration between parents, classroom teachers, specialist teachers and other professionals who may be working with the student or who may be part of a school's learning support team. Within individual education planning there is an opportunity for those involved to come to consensus about educational priorities for individual students, and to link them explicitly to teaching and learning experiences. Like all successful plans, an IEP will have specific, measurable outcomes that can be used to evaluate the effectiveness of teaching and learning and to monitor student progress and development.

Who has an IEP?

In Australia, IEPs are expected to be in place for all students who are identified with disabilities and qualify for funding to support their special learning needs. Depending on a student's particular needs, an IEP may focus on functional skills, physical skills, academic outcomes or social and behavioural goals. For most students who are included into the regular classroom, the IEP will include literacy outcomes and require that some form of individual literacy programming be completed by the classroom teacher. (Additionally, in NSW, students who perform poorly in literacy on the state-wide Basic Skills Tests must be given follow-up focused individual assessments (FIAs). Individual literacy plans are then written for each student based on the FIA information.)

When are IEPs developed?

IEPs are generally developed at the start of each school year, or when a student with special needs is new to a school or first receives funded support. Funding guidelines generally specify a timeline, most often a year or semester in duration, for the development, implementation and evaluation of an IEP. Both the initial and final phases of IEP development and evaluation require collaboration between teachers, other professionals and family members. During these phases consideration should also be given to including the student in the process of planning, implementing and evaluating the IEP.

Key information in the IEP

An example of an individual education plan for a student with a mild intellectual disability is shown in Fig. 8.1. This document, developed for Shantelle, contains six key pieces of information that are common to individual education plans:

- The team members who contributed to the development of the plan
- A statement of the student's present level of functioning (This example also includes important information about the student's interests and learning styles. Recording such information can be very valuable to teachers in designing activities and planning learning experiences.)
- The curriculum content and related outcomes and indicators that the student is expected to work towards (Linking IEPs to current curriculum documents allows all students to progress in terms of the general curriculum.)
- Detailed information about the teaching and learning strategies that will be used
- How and when the strategies' effectiveness will be evaluated
- Any additional services, supports, or other professionals involved in the educational program.

Figure 8.1: Sample individual education plan showing the six key pieces of information commonly represented

Individual education plan for Shantelle Roberts

Thumbnail sketch of relevant personal information

School: City Primary **Age:** 9 **DOB:** 17.8.94 **Grade/Stage:** Year 4 / Stage 2 **Year:** 2003 **Implementation from:** Week 4, Term 1 **To:** Week 7, Term 4

Contributors to the plan: A Hamoud (class teacher), K Briggs (support teacher), T Roberts (parent)

Current achievements, interests and learning styles: Shantelle is mostly working towards Stage 1 outcomes. She loves animals, computer games and listening to pop music. Shantelle has good memory recall but often finds it difficult to settle on a task. She likes to work in groups with her peers – does not like individual programs.

Curriculum/Outcomes	Content/Indicators	Teaching/Learning strategies	Assessment/Evaluation	Future priorities
English Reading RS1.5 Reads a wider range of texts on less familiar topics with increasing independence and understanding, making connections between own knowledge and experience and information in texts. Reading RS1.6 Draws on an increasing range of skills and strategies when reading and comprehending texts.	› shared, guided and independent reading of a variety of genres and text types › responds to and makes sense of a variety of texts › predicts and interprets contextual and semantic information and attempts to self-correct › identifies basic grammatical information › locates relevant information in texts › develops awareness of graphological and phonological information	› participation in guided-reading group, 3 times per week, starting at PM red level › oral retell of silent-reading book in 'pair share' at least twice per week › sight-word practice, including flash cards, games (bingo) and memory › direct instruction/modelling of reading with expression, self-correction › comprehension, 3H strategy and text underlining for literal comprehension › punctuation/spelling exercises, word families charts, common homonyms	› monitor PM level; regularly assess and move up levels as appropriate › observe range of texts S. chooses to read: can she retell a text with some main points, correct sequence? › record bi-weekly number of sight-word flash cards per minute; graph results › view work samples and apply some 'tests' to show skills in locating answers to literal questions in the text › compare writing samples from Terms 1 to 4: what conventions does S. use independently?	› S's reading has only improved a few levels, falling further behind her age peers. Good memory recall with sight words but poor transfer to texts. Need to consider a 1:1 reading program with aide or a more functional approach. › S. uses capitals and full stops but independent writing/ spelling needs a lot more work.
Maths Numeration 1.1 Approximates orders, counts, compares and represents whole numbers and groups of objects up to 100. Numeration 1.3a Represents addition and subtraction facts up to 20 using concrete materials and in symbolic form.	› counts forward/backward; reads and writes, makes groups of, numerals to 100 › orders and represents a collection of objects symbolically › models addition and subtraction facts in vertical and horizontal arrangements › uses effective mental strategies	› number word sequence practice by saying, writing, stamping, clapping etc. to count by 1s, 2s, 5s and 10s › 'secret number' and quick-quiz activities › filling in 100s chart, missing numbers › creating/recording own number facts (+, –) using base 10, counters, pencils › games to practise counting on/back	› SENA assessments in Terms 1 and 4 › can S. fluently read, write and count numbers 1–100? Can she count on or back from any number in the range? › what addition and subtraction facts can S. quickly and accurately recall? Can she correctly complete simple +/- sums?	› Excellent recall, recording and understanding of most +/– facts to 20; fluent in numbers 1–100. › Counts on and back. › Needs lots of work on times tables.
PDHPE Games and Sports 1.8 Performs fundamental movement skills with equipment in minor games.	› continuously bounces large ball › throws a small ball/ beanbag overarm to a wall, target or partner › catches a large or medium-sized ball with two hands	› practice with 2 hands, moving on to 1 hand (make ball available at lunchtime) › small-group beanbag games, whole-class ball games, lots of encouragement › 1:1 practice with teacher-selected peer	› observe S. at play and in PDHPE lessons: how well can she catch, throw and bounce a ball? Ask S. if she thinks she has improved her ball skills	› S. has mastered throwing/catching and bouncing. Ready to join a netball or t-ball team.

Outcomes are determined by the IEP team. The PDHPE outcome was requested by Shantelle. Shantelle will work towards other outcomes across the KLAs specified within the class program.

Many of the strategies are usual classroom activities.

Assessment is linked to outcomes and uses a range of strategies.

IEPs in the classroom

When does a classroom teacher implement an IEP? When do they have time to engage in such individually focused education, given the demands of all the students in their class? If IEPs are viewed as add-ons to the class program, most teachers will find attempts to implement them onerous and time-consuming (O'Brien, 1998; Rodger, 1995). However, when the IEP is considered alongside the class program, it can become an important practical scaffold for teachers as they organise their daily programs.

An inclusive teaching approach will, as far as possible, integrate IEP outcomes identified for particular students into usual, ongoing classroom routines (Jenkins, 2002; Vaughn & Schumm, 1994). In this way, the IEP becomes a part of what teachers do to as they enact a whole-class program. For example, when particular students are participating in class activities such as guided reading, or individual focused sessions to improve their word-identification skills, they can be working towards specific outcomes identified on their IEPs. Similarly, when students complete a variety of writing tasks in a small-group situation with the in-class support of a teacher aide, some of them may be working towards achieving the outcomes of their IEPs.

The linking of IEPs to class programs and curriculum outcomes is the essence of effective and inclusive education. In an inclusive classroom, IEPs become simply another dimension to be considered in instructional planning. The IEP is not an extra to be added on to the class program but rather a feature of the class that must be taken into account as the literacy program is developed. From this perspective, implementing an IEP can be viewed as a more formalised and curriculum-related approach to what many effective teachers do already — that is, to consider how they can adapt classroom content to meet the learning needs of all the students in their classes.

Features and impacts

Many of the decisions on what and how to teach students with special educational needs will be made during collaborative learning support team meetings (Bordin & Lytle, 2000). With this information, teachers can then develop a literacy program to suit the whole class. The use of an outcomes-based framework supports teachers in catering effectively for individuals with special needs, because the focus is on the learners rather than the content (Nicoll, 1996). The support teacher may provide valuable professional dialogue and can support the student with special needs in accessing the classroom program.

As Westwood (1997:7) observes, individual education plans "should indicate quite clearly not only what the student needs to do which is different from the rest of the class but also the areas of the curriculum where he or she can be counted in with the others". The examples of inclusive educational programs presented in Figs 8.2 and 8.3 affirm the ability of practising teachers to plan and program instruction that focuses on the needs of the whole class, yet also takes into account particular students' individual learning needs. These examples are working documents that help teachers "get on with the

business of facilitating effective learning" (Nicoll, 1996:17). They illustrate effectively how teachers can develop creative ways of accommodating the individual needs of students that have been identified by support teachers and others on the learning support team and documented in IEPs.

Essentials of inclusive classroom programs

The PETA publication *May I See Your Program Please?* (Nicoll, ed., 1996) emphasises that literacy programs are working documents. The question teachers are being asked in this chapter is: How are you catering for individual (or special) needs in your literacy program? In order to explore how teachers are catering for individuals with special needs, we collected examples of programs developed by practising teachers.

The first excerpt, depicted in Fig. 8.2, is from a classroom program for a Kindergarten class that includes three children with identified mild intellectual disabilities. In this class, the teacher collaborates with the support teacher, who provides individual and small-group learning activities designed to assist the three students in accessing literacy activities each week. For guided reading, this includes a focus on high-frequency words, unfamiliar words, and the language of the text. The reading games used in the classroom, and designed to complement the text, are played in small groups in order to establish clear social expectations and to prepare the students, in time, to participate fully in whole-group games. The support teacher's IEP for each of the three students specifies the outcomes and focus indicators that both teachers are working towards.

Figure 8.2: Snapshot from a classroom program developed collaboratively by a support teacher and classroom teacher, focusing on three students with special needs

Jack, Grace and Liam all have identified intellectual disabilities. They are included in the class groups.

The names of students in each group may or may not be included in the program.

This program contains a column for notation about individual students.

This teacher also annotates the program as part of the assessment and evaluation during or after implementation. She has noted that Max will move up a group and that Caitlyn's phonemic awareness needs further investigation.

This example of a guided reading program does not identify the students as having disabilities. Rather, they are included within the groupings used to define the five levels of literacy teaching necessary in the class. The teacher has a pocket chart in the classroom with each student's name written on an individual card. This allows the groups to be altered, when appropriate, to match instruction with student learning needs as closely as possible. This teacher also takes the opportunity to move students temporarily when others are absent, to see if they can deal with higher-level instruction. Such flexibility is ideal for the positive accommodation of students with special needs because it allows their needs to be catered for in the same way as all the others in the class.

Two of the students with a mild intellectual disability, Grace and Jack, are in the Penguins group, while Liam has recently been placed in the Lions, where he is responding to more demanding instruction. It is obvious that there are other students in the class with learning needs similar to those of the students with special needs. These students are not on particular support programs. However, the guided reading program includes a column in which individual student needs are noted. Following assessment and evaluation, the teacher annotates her program with information that guides and informs future teaching decisions. For example, she has noted in the individual focus column that Max should move groups, and that Caitlyn's phonemic awareness needs further investigation.

In addition to what is shown in Fig. 8.2, the class program goes on to specify the relevant reading outcomes for all students. The teacher also has a separate folder that holds all assessment information related to this planned program. Annotated work samples, running records and checklists of skills are all contained within this folder, and are used to inform planning and teaching in future weeks.

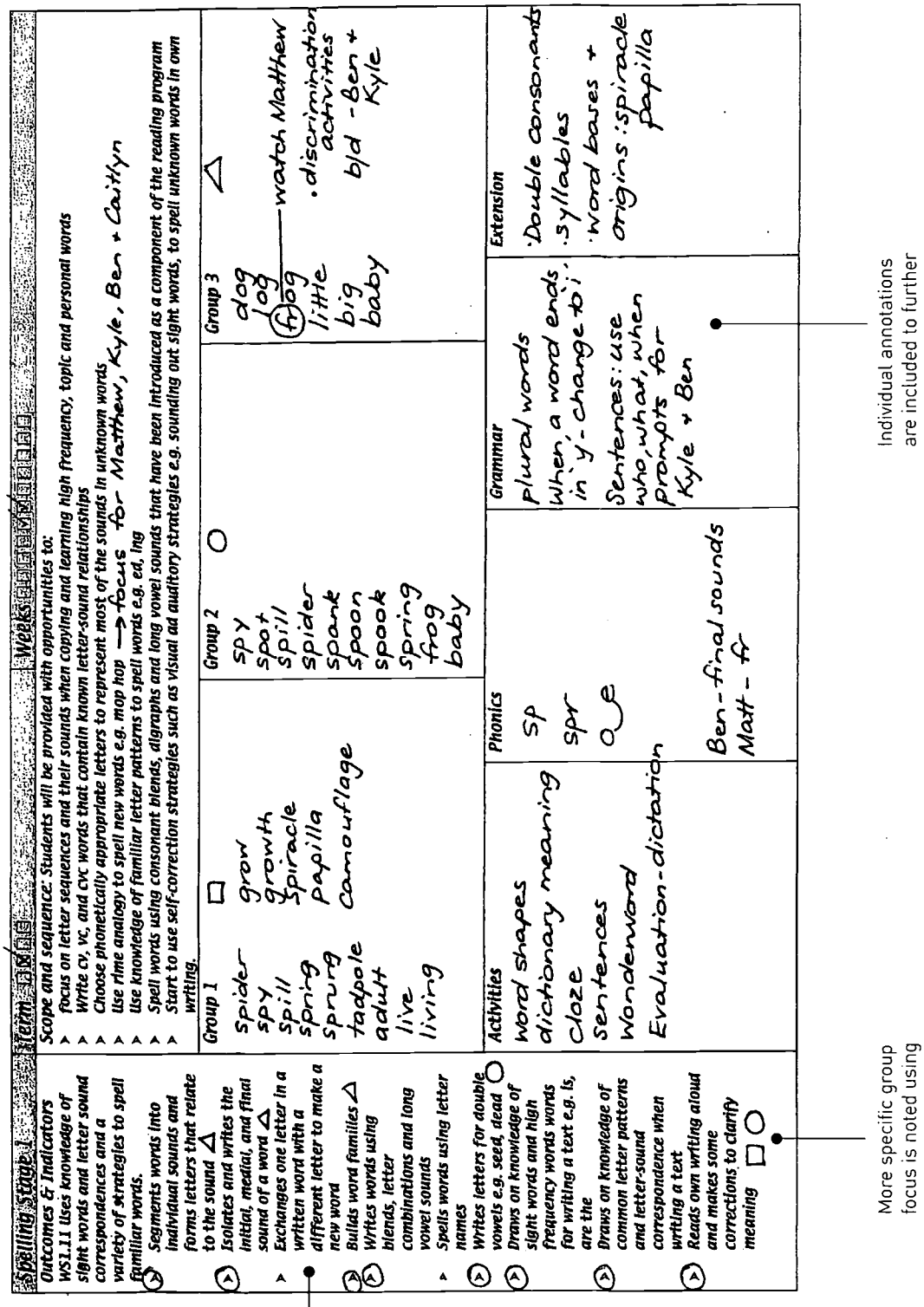
The program shown in Fig. 8.3 is from an infants' class that includes Matthew, a student with an identified language disability. In this case, two forms of individual programming operate in conjunction with the teacher's class program. These three programs or working documents are defined in the following table.

Table 8.1: Three forms of programming that operate to support a student with a language disability

Classroom teacher	Support teacher (Language)	Speech pathologist
Inclusive classroom program is developed from information about the nature of the class, the school and system requirements, and the available resources. Collaboration with support teacher raises awareness of specific needs of student and enables discussion of how these needs may be met both in the support and class programs.	**Individual literacy plan** is based on information about classroom context as well as specific information from the other professional. Support teacher: › reinforces focus of the individual language program during individual, small-group and classroom teaching › provides monitoring information back to speech pathologist with reference to individual language program › advises class teacher of the focus of language program so that it may be reinforced in the classroom setting.	**Individual language program** details focus of therapy or intervention. It is informed by, and monitored through, specific specialist assessment. Initial assessment and ongoing monitoring information is fed back to support teacher.

In this example, the language support teacher develops an individual literacy program in conjunction with the class teacher. She also develops an individual language program with the speech pathologist, who provides weekly intervention support to Matthew. The class teacher collaborates with the support teacher prior to writing her program, and on an ongoing basis during the year. In turn, the support teacher's program can complement the teacher's content focus, linking specific literacy activities to the texts used in the classroom. As a result, the class teacher's program richly reflects both the focus of the individual literacy program and the specific language and literacy needs identified in collaboration with the support teacher. As the teacher who prepared this program observed: "IEPs are written in consultation between the support teacher and classroom teacher so they have reciprocal relevance and support. Teachers *know* what the goals of the IEP are because they had an input into writing them."

Figure 8.3: Snapshot from a class teacher's program showing differentiated learning levels and opportunities to address the specific needs of identified students



The page from this teacher's class program (shown in Fig. 8.3) illustrates different ways of focusing on individual learning needs. The spelling program clearly identifies three different learning levels for the class. It also shows how the specific needs of Matthew can be focused on, along with those of two other students, Ben and Kyle, who are part of the △ group.

The essentials in summary

The program pages shown in Figs 8.2 and 8.3 illustrate ways to include the focus of IEPs within a classroom literacy program. One of the teachers consulted during the writing of this chapter noted that the classroom teacher does not 'reprogram' but, rather, regularly refers to the IEP document in order to inform her daily classroom teaching: "I have to revisit the IEPs regularly to ensure goals are being met and specific skills are being targeted".

While there is no one right way to program, we believe there are some essentials that are necessary for the development of successful inclusive classroom programs. These can be framed as guiding questions (Table 8.2) that take into account issues related to the whole class as well as to individual students.

Table 8.2: A framework for developing inclusive classroom programs

Guiding questions	Individual focus questions
What frameworks do I need to fit within? › Community and school context › System requirements › Assumptions about learning › Needs, interests, experiences and abilities of the students	What is expected of me as the classroom teacher for an identified student with a disability or learning difficulty? Who else shares responsibility for this student's learning? What are their roles? How do I work with them?
What do the students need to learn? › The outcomes towards which the learning experiences will be aimed (as determined by the curriculum framework) › The prior learning and achievements of the students › Any particular cultural, social, physical, intellectual, emotional aspects of functioning that need to be considered	What is in the student's IEP? What is the student's current level of functioning? Are the intended outcomes the same for this student? Do they need to be altered? Are there particular indicators or pointers that are not relevant? Can others be used? Can these also apply to the rest of the class?
How do I intend to achieve the specified outcomes? › Teaching/Learning activities › Strategies › Monitoring, assessing, recording › Resources and organisation	What teaching strategies and learning experiences would be most appropriate for the student? Do these match the class plan? Would others in the class benefit from any adaptations? What pre-teaching (from support teacher or family) might support the student's inclusion in classroom activities? What aspects of the IEP might be included in the classroom activities (e.g. modelling particular forms of speech during news)?

These are not an exhaustive set of prompt questions but a starting point for teachers who want to program more inclusively. Likewise, the panel under outlines, in broad strokes, the classroom teacher's role in successfully *implementing* IEPs.

Successfully implementing an IEP: Ten key points for classroom teachers

1. Start with your class program. Use frameworks such as curriculum documents and school scope and sequence plans to specify what content you have to teach. Consider how the program you are developing will meet the learning needs of all your students, including those who have IEPs.
2. Be active in gathering information about individuals (e.g. educational assessments, medical information, family information). Seek the opinions of students regarding their preferences and priorities for learning.
3. Participate in planning meetings and collaborate with other team members as the IEP is developed. Professional collaboration brings together different areas of expertise. As the classroom teacher, your areas of expertise will include classroom teaching, your program and the curriculum. Share and listen. The IEP should be a clear plan of action showing the learning content (what?), teaching and learning strategies (how?), and team members' responsibilities (who?). It should have a framework for evaluating the effectiveness of the teaching and learning experiences associated with it.
4. Take a responsible role in facilitating effective communication. This is important throughout the entire process of developing and implementing an IEP. Consider using a communication book, a message board, or some other system to facilitate communication between team members.
5. Identify links between the IEP and your classroom program. Devise and use a simple cross-referencing system that indicates the connections between outcomes set for class and individual education plans.
6. Regularly refer to the IEP as part of your planning process to ensure goals/outcomes are being met. Reflect on the purpose and utility of all learning activities that you offer students. Record observations and anecdotes that will inform future class and individual programming.
7. Think creatively about programming and remember that literacy learning occurs across the curriculum, not just in English time. Explore the idea of meeting different outcomes for different students based on the same, or very similar, activities.
8. Consider innovations — not to reinvent the wheel but to question whether current practices are purposeful in the context of all students' learning needs. For example: How can teacher aide time be best used? Can other students with similar needs be included in a small group run by an aide? Can the aide supervise higher-achieving students to free you to work with those who need extra help?
9. Use grouping strategies that best support students with special needs. Co-operative grouping strategies promote inclusion and allow students with special needs to participate alongside their peers while working towards individual learning outcomes.
10. Plan the evaluation of students' learning, and the effectiveness of learning and teaching activities, in a systematic way. Use formal and informal methods, as well as common sense and intuition. IEPs should result in improved access to the mainstream curriculum for students with special needs. If this is not happening, something needs to change. Communicate with other team members and solve problems to make a difference.

As one teacher observed (in Nicoll, ed., 1996:157), a "program should be cheerfully and doggedly shared, rather than conquered in solitude". This sharing is even more important for IEPs and inclusive classroom programs. Just as teaching for students with disabilities is not the sole responsibility of one teacher, neither is the programming.

References and sources

Board of Studies NSW (1997) *English K–6 Literacy Support Document*. NSW Department of Education and Training, Sydney.

Bordin, J & Lytle, R K (2000) 'The IEP Meeting: All Together Now ...?' *Exceptional Parent*, September.

Cooper, P (1996) 'Are Individual Education Plans a Waste of Paper?' *British Journal of Special Education* 23 (3).

Jenkins, H J (2002) 'A Continuum-based Approach to Inclusive Policy and Practice in Regular Schools'. *Special Education Perspectives* 11 (2).

Lignuaris-Kraft, B, Marchand-Martella, N & Martella, R C (2001) 'Writing Better Goals and Short-term Objectives or Benchmarks'. *Teaching Exceptional Children*, September–October.

Lingard, T (2001) 'Does the *Code of Practice* Help Secondary School SENCos to Improve Learning?'. *British Journal of Special Education* 28 (4).

Mastropiri, M & Scruggs, T (2000) *The Inclusive Classroom: Strategies for Effective Instruction*. Merrill, Columbus, Ohio.

Nicoll, V (ed.) (1996) *May I See Your Program Please?*. Primary English Teaching Association, Sydney.

O'Brien, T (1998) 'The Millennium Curriculum: Confronting the Issues and Proposing Solutions'. *Support for Learning* 13 (4).

Pearson, S (2000) 'The Relationship between School Culture and IEPs'. *British Journal of Special Education* 27 (3).

Rodger, S (1995) 'Individual Education Plans Revisited: A Review of the Literature'. *International Journal of Disability, Development and Education* 42 (3).

Vaughn, S & Schumm, J S (1994) 'Middle School Teachers' Planning for Students with Learning Disabilities'. *Remedial and Special Education* 15.

Weishaar, M K (2001) 'The Regular Educator's Role in the Individual Education Plan Process'. *ERIC Clearing House*, November–December.

Westwood, P (1997) *Commonsense Methods for Children with Special Needs* 3rd edn. Routledge, London.

Recommended resources

A number of websites provide perspectives on individual programming. These two represent good starting points.

www.eddept.wa.edu.au
Western Australian Department of Education
(Educators > Disabilities)

www.education.tas.gov.au
Department of Education Tasmania
(Learners and learning > Equity Standards Branch > Disability & learning difficulties)

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PRACTICAL LITERACY PROGRAMMING

Primary-school teachers know that classroom experiences do not just happen. They reflect a teaching and learning program that synthesises a host of complementary, and sometimes competing, concerns. There are students' different starting points. There are requirements mandated by systems and schools. There are short- and long-term learning goals — some quite specific, others more generic. There are ever-evolving technologies. There are new ideas about curriculum and pedagogy. There are constraints of resources and time. To be coherent, therefore, a program is something of an art form. This book elaborates some programming approaches developed by expert practitioners around Australia, shedding light on the most critical function of the teacher out of class time.

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