Introduction
Assessment, and its interface with curriculum, teaching and learning, has always been a significant component of classroom practice. Research has indicated that a typical teacher can spend between one-third and one-half of her class time engaged in one or another type of measurement activity (Stiggins & Conklin, 1992). Research has also demonstrated that the knowledge teachers hold about assessment matters has been limited, with limited attention to this area in teacher preparation programs (Linn, 1990).

At the same time, politically-mandated educational accountability agendas have led to the introduction of state, and potentially, national assessment agendas such as the Year 3, 5 and 7 literacy and benchmarks, as well as anticipated new requirements for assessment in civic education, science and information technology (MCEETYA, 1999; s.17(4) Schools Assistance (Learning Together – Achievement through Choice and Opportunity) Bill 2004 (Commonwealth)).

In Queensland, the recent report by the Assessment and Reporting Task Force (EQ, 2002), with international consultant Professor Caroline Gipps assisting, noted the need for teachers’ professional knowledge in the area of assessment to be enhanced. The primary challenge is to ensure that teachers feel competent in all aspects of classroom instruction and assessment according to traditional professional standards of practice. However, the secondary challenge, that this paper addresses, is to ensure that such agendas confront the new challenges for assessment that changing practices such as technology, interdisciplinary studies and inclusivity, bring. Following on the current philosophies of learning that seek to develop lifelong learners and flexibility to cope with change, ideally teachers will not only have familiarity with assessment practice but be able
to anticipate, and respond to, the assessment demands of these new education contexts. In this paper we discuss just some of these new directions in terms of the issues that arise as well as the possible consequences for teacher assessment practice.

**Issue 1: The interface between literacies, curriculum and assessment**

While national and state education policy in Australia has foregrounded the centrality of literacy to the core business of schooling, establishing new national literacy goals and state-based literacy strategies, there is growing recognition of how such goals and strategies can be met only if schools actively develop and pursue whole-school approaches to literacy education (Hill & Crevala, 1998). Such development is as yet in its infancy, a recently published Australian study showing that teachers have had limited, if any, pre-service or in-service preparation in how to teach literacy in secondary school (Sim, Wyatt-Smith, Dempster, 2002). Further, the national study of the literacy-curriculum interface in senior schooling (Cumming & Wyatt-Smith, 1998) showed that the literacy demands of curriculum are typically not made explicit to students, with teachers and students having no clear sense of the coherence of these demands across curriculum areas. What emerged from this study were critical findings concerning the multimodal nature of classroom learning; how students always and inevitably encounter literacy demands as they are presented and engage with discipline knowledge; and evidence that students' achievement in senior schooling is linked inextricably to their control of curricular literacies. In short, it is the literacies of each curriculum area that provide a filter to the attainment and demonstration of achievement.

Further, within this focus, a key issue relates to the impact of new and emerging information communication technologies (ICTs) on curricular literacies and the affordances that ICTs make available to students and teachers in how they use and create curricular knowledge. Of note here is how issues of access in technology in particular and learning more generally are changing from who is in a position to receive the knowledge to who has the skills to participate in the knowledge. In exploring this point, Buckingham (2003) discusses how access is not just about money and technology, but also about cultural capital, the ability to use technology productively, and the attitudes towards technology, literacy, and education in general. In other words, 'access is also about cultural forms of expression and communication; and it needs to be acknowledged that students' access to (and familiarity with) those cultural forms is itself likely to be quite variable' (p. 183). The multi-modal possibilities for engaging students at the literacy-curriculum-assessment interface have been given some attention in the published research (Wyatt-Smith & Cumming, 2003), though much remains to be learned about how teachers and students collaboratively work at and explore this interface in ways that improve outcomes. Already is clear however that the multimodal classroom is a dynamic, interactive context wired for communicating locally and globally at the stroke of a key, and that assessment practices that previously had dominance in a print-dependent world no longer have relevance in such a classroom.
Issue 2: Integrated curriculum
The next issue we consider is assessment for and of integrated curriculum. Following the Adelaide Declaration of National Goals for Schooling in the Twenty-First Century (MCEETYA, 1999), a number of agreed national outcomes for schooling were established. These included the focus of all states and territories on eight key learning areas for the years of compulsory schooling – the arts; English; health and physical education; languages other than English; mathematics; science; studies of society and environment, and technology. The goals included national reporting of outcomes and an increased focus on standards and accountability in four areas, as discussed. The identified curriculum and emphasis on literacy and numeracy have led on the one hand to concerns about the 'crowded curriculum' and its impact on the reality of teacher practice (see, for example, http://www.bosnsw-k6.nsw.edu.au/primarymatters/pm_archive/pm8_9.html). However, recognition that compartmentalised curriculum does not necessarily allow students to transfer knowledge or support constructivist theories of learning, in conjunction with policy and research-based awareness of the need to develop cross-curricular literacies and numeracies (DEETYA, 1998; DETYA, 2000; EQ, 2002–2003; Wyatt-Smith & Cumming, 2003) have led to emphasis on integrated curriculum and cross-curricular issues.

Implications for assessment are both complex and simple. Under the eight key learning areas, multiple outcome statements for multiple levels, for multiple curriculum, need to be considered. The critical factor for successful assessment in these circumstances will be to anticipate, and design learning activities, that accommodate the range of outcomes that can be demonstrated. Thus, we posit, through an integrated learning activity (Wiggins, 1998), learning outcomes can be observed, reported, or even directly assessed. Using current outcomes-based syllabuses as guides, it is the learning that is integrated while the component parts of achievement are identified. An advantage of integrated activities is that hopefully, the sum is greater than the parts. The students gain practical knowledge of organisational skills, cross- and lateral thinking, selection, synthesis and integration of knowledge. So outcomes can be recorded that match the identified curriculum models but also reporting can start to go beyond to the areas of intellectual engagement (Cumming, 2004). Teachers need also to be prepared to identify and report on 'surprises', when students demonstrate learning the teacher did not anticipate, perhaps going beyond what the teacher himself in fact may 'know' – an issue of particular relevance in online contexts (Wyatt-Smith, Castleton & Ryan, in press, 2005).

Issue 3: Assessment in online contexts
While there is a growing body of research on the intersections of new communications technologies with new forms of text and emergent literate practices, assessment questions arising from these intersections have not been the subject of sustained research (Kress, 2003). The urgency surrounding the need to address these questions stems in part from the observation by several researchers that there exists 'a wide and widening gulf... between the forms of literacy students engage in within school settings, and the manner in which they engage in them, and those they encounter in the worlds beyond school'
(Lankshear & Knobel, 2003, p. 1). Currently it is unclear for example, how, and more importantly, how well, schools are preparing students for living and working in an ICT-saturated world in which young people, in outside school contexts, are already enthusiastic users of a wide range of technologies and perfome a similarly wide range of multiliterate capabilities. Also unclear is how measures of academic achievement can take proper account of the diverse multiliteracies necessary for effectively managing multiple semiotic systems, channels and modes of communication. What is known however is that there is a widely reported paradigm shift (Tyner, 1998) from students as recipients of knowledge and information to students as participants in and creators of knowledge and information.

A current ARC-funded study is investigating how high school students (aged 13 and 15 respectively) use digital literacies and internet resources to make sense of, and communicate about, the key understandings they develop across a range of curriculum domains (Readers interested in the Australian study are advised to see Wyatt-Smith & Ryan, 2003; Wyatt-Smith, Castleton, & Ryan, 2005 in press). In focussing on online curricular environments, the study will generate a broad-gauged database on an increasingly important aspect of high school students' learning and literate capabilities against which practice, theory and policy can be assessed. Early analyses of classroom data have provided strong evidence of the interrelated aspects of visual, linguistic, audio, and spatial modes of meaning-making. This provides an opening to challenge the privileging of any single mode, and in particular, the longheld dominance of the written linguistic mode, as the determinant of literate accomplishment. Also evident is how multiliteracies assessment extends to multimodal design where, what is valued, is students' demonstrated capabilities to combine different meaning systems and channels of communication. From this vantage point, there is a need to bring to centre stage the ways in which students combine epistemologies and design elements in working with and representing knowledge, this move having strong implications for how learning is assessed.

**Issue 4: Assessment and contexts of practice**

The emphasis in educational assessment reform over the last two decades has been towards meaningful, contextualised and purposeful activity which focus on demonstration of what students can achieve, rather than on students' failure to achieve (eg, Cumming & Maxwell, 1999; Gipps, 1994; Newman & Archbald, 1992). The underlying principles of the reform are twofold: recognition of the type of assessment that improves student learning and leads to better performance; and, recognition of the increasing diversity of students within a classroom as a result of increased retention in schools, inclusion of students with special needs, and increased multicultural diversity. Principles of good assessment practice, and education authority policy statements, emphasise contextualisation of learning activities and assessments in ways that are relevant to community needs and, further, that assessment should incorporate:

- a range and balance of background contexts in which assessment items are presented
- a range and balance of types of assessment instruments and modes of response, including a balance and range of visual and linguistic material
- a range and balance of conditions (ACACA, 1995, p. 3).
The educational focus on contextualised assessment presents two different challenges in general. Firstly, the more contextualised a learning and assessment activity, the more difficult it becomes to extract a generic statement of achievement or competence, especially if needed for comparability or consistency reasons. The resolution of this issue may come through increasing use of portfolio assessment, whether as collations of demonstrations of student achievement or as a means for considering an overall judgment of standard based on many demonstrated, but contextualised, samples of work.

The second issue is the corollary of the first, discussed below, the challenge of contextualised assessment versus external accountability measures. In an environment that has an increased focus on educational accountability, more use is being made of standardised tasks or assessments that of necessity cannot be so contextualised in community and individual needs. A deeper theoretical issue arises. The argument for contextuality emerges most strongly from beliefs of practice that learning, and its demonstration, are situated (Readers should see Anderson, Reder, & Simon (1996) for an excellent analysis of different theories of situated learning.). This theoretical stance is informing much of educational research and practice today. However, the accountability assessments emerge from beliefs of generic, generalisable achievement. The next decade will be very informing as to how these can be reconciled, and the nature of the practices that will emerge. This issue is also addressed in Issue 5.

**Issue 5: Competing or complementing assessment: Teacher-based assessment and external accountability measures**

In Australia, the system priority given to measurement, mentioned earlier, is evidenced in the country's first National Plan that put in place measurement of students' literacy and numeracy progress against agreed benchmarks for Years 3, 5, and 7, and the commitment to national reporting on student achievement against the benchmarks (Department of Employment, Education, Training and Youth Affairs, 1998). The national policy defines the benchmark at each year level as intending:

To set a minimum acceptable standard: a critical level of literacy and numeracy without which a student will have difficulty in making sufficient progress at school. The benchmarks therefore identify the essential aspects of literacy and numeracy (DEETYA, 1998, p. 23).

According to this statement, the benchmarks capture and make available for scrutiny one account of 'essential aspects': an account that is stable and powerful, at least in policy terms, given the stated expectation that it is to be used to inform national reporting on the literacy and numeracy achievement of Australian school-age students.

Given this, it is surprising, even alarming, that a sample of Queensland teachers (Wyatt-Smith, 2000) reported that they had no prior knowledge of the National Plan in general or the benchmarks in particular. Further, they indicated that they did not have a clear sense of the purposes of the Year 3 sampling and Year 5 testing programs, but reported that, as far as they were concerned, the programs had little, if any curriculum relevance. A Year 5 teacher made the point that the reports 'just told you what the children can do and couldn't do on the day, on that particular test'. Another teacher commented that the reports 'just told me what I knew already'.

223
While officially, the benchmarks identify the essential aspects of literacy, and the design of the year 5 literacy and numeracy tests are informed by the benchmarks, as well as the state's curriculum, the teachers reported that they did not see clear connections between results from the testing program and interventions that they may put in place to secure improved outcomes for students. Further, they reported having only limited information about the purposes of the state-based census literacy and numeracy testing programs, and no knowledge of the benchmarks themselves or what the benchmarks take to be 'essential'.

What then do teachers report to be essential in their teaching and assessment practices? Broadly speaking, the teachers' accounts of 'essential' learning tended to fall into two categories. In the first category is talk about essential as needs-based—defined in terms of the local school and community context. As such, what the teachers count as the essential aspects of literacy and numeracy, appears to vary even widely from year to year, and from student to student, being determined by their first-hand perceptions of individual student's needs and capabilities – in the words of one teacher, 'where the kids are at and what they can achieve'. In accordance with this view, essential needs to be fluid (rather than fixed), always being redefined. More specifically, teacher understandings of what counts as 'essential' tends to hinge on their perceptions of the school context in the local community: who the students are, their cultural and linguistic backgrounds, their access to resources, both human and material inside and outside the school; and their fluency with spoken, written and visual English.

In the second category, there is talk of essential as a core of learning needing to be fixed centrally in the interests of teachers and students. One teacher expressed this as follows:

I think what's essential, it's well, more fixed. I think it needs to be, I mean in a way a standard, you know? I think that there are some variations around the fringe and I've got some students in my class who are, because they may be very advanced in their learning and their use of language, they might, you know, there might be areas that they, like they might be able to spell very difficult scientific words that other students can't spell. On the other hand, I've got students in my class for whom spelling is very difficult so there may be words that they learn to spell that are like a core for them that, you know, almost like a Year 2 level, so within any year level you would have to make provision for students who are either very much up this end or very much down that end. But I still believe that there is a core of essential learning in language.

In this extract, essential is still associated with responsive, needs-based teaching, a characteristic noted above. Additionally, however, essential is framed within the teacher's belief that a core of essential learning in language does exist and that this is tied, albeit in an ill-defined manner, with standards, understood to refer more to content rather than to characteristics or features of achievement levels. Of special interest in regard to this was how teachers have reported a lack of confidence in their own judgments (Wyatt-Smith, 2000), due in part to the current absence of explicit system support for moderation practices at local and system levels, discussed below. (Wyatt-Smith, Castleton, Freebody, & Cooksey, 2003).

This issue provides an opening for considering the assessment canons of reliability and validity and how they converge with equity, especially in the contexts of classroom-based assessment and large-scale testing.
Key Assessment Issues for the Future

Issue 6: Convergence of reliability, validity and equity/social justice in assessment

Currently in Australia there are no published league tables showing school performance in state-based large scale testing programs. However, as discussed earlier, the country's first National Plan for literacy and numeracy in schooling, launched in 1998, makes a strong policy commitment to achieving accountability through rigorous testing, measurement, and reporting as early as possible on school entry, and then at Years 3, 5, and 7. (Readers interested in a detailed discussion of the range of state-based testing programs operating throughout Australia are advised to see Wyatt-Smith & Ludwig, 1998). Essentially, the Plan, as elaborated in *Literacy for All: The Challenge for Australian Schooling* (Department of Employment, Education, Training and Youth Affairs, 1998), promotes the understanding that the testing-measurement-reporting mix is the vital means for securing improved literacy and numeracy outcomes. The Plan also sets out the testing imperative for generating clear, unambiguous information about outcomes and for providing these to parents and the wider community so that they are informed about school performance, and therefore, school selection. As the title of the national policy monograph suggests, a distinguishing feature of the Plan is how it reframes the national testing policy initiatives in terms of equity and social justice in schooling, taking up the position that testing is the vital lever for achieving improved outcomes for all. So, the potency of the National Plan lies, in part, in its capacity to promote the notion that standardised testing, and subsequent accountability measures, work to realise equity and social justice in schooling. Far more widely accepted, however, is the notion that testing, in and of itself, will not yield improvement or equity (see, for example, Linn, 2000), and that teachers are the primary change agents, the linchpin of efforts to secure both improved learning and equity.

What then is the relationship between the traditional assessment canons of validity and reliability, and equity, especially as they relate to teacher-controlled assessment in the classroom? One widely recognised and supported view is that the value of assessment is in its contribution to learning, extending to diagnosing difficulties and monitoring progress over time. Once this learning-orientation to assessment is adopted, the teacher’s attention can focus on the fit between the intended curriculum, the enacted curriculum, and assessment demands, the latter including the adequacy of the methods used to assess, as well as the conditions or contexts in which assessment occurs. Pitman, O’Brien and McCallow (2000) have described how this approach to valid assessment 'entails consultation and negotiation among teachers. It also entails seeking the views of students about the content and timing of assessment and fostering an awareness of students of the decision-making process' (p. 14). In elaborating on the role of students in assessment, they stated that while unanimity of beliefs or decisions are not expected, it is expected

that each student learns how assessment decisions are made, and how they affect his or her interests, and that the student feels that the decision-making process is responsive to inquiry (p. 14).

What emerges in this extract is the idea that valid assessment lends itself to scrutiny by teachers and students alike, and that both should have agency in how assessment decision-making occurs. By extension, then, assessment that strives to be valid can also
enable students to become active participants in (as distinct from passive consumers of) assessment decisions. This view stands in opposition to more traditional notions that tie teachers' authority to their roles as assessors, with teachers' decision-making taken to be beyond questioning by students.

Whereas validity has traditionally been tied to the considerations of curriculum and teaching, reliability has been tied to notions of rater- and inter-rater consistency over time. Importantly, high reliability measures have been promoted, especially within the psychometric paradigm, as visible measures of the fairness of a test or assessment instrument. Typically, the assumption supporting such a stance has been that standardisation of grading should be given primacy and therefore, how grading occurs needs to be wholly regulated, with all assessors arriving at consistent judgments of quality. In short, reliability and confidence levels in assessment have become aligned, as though standardisation of how judgment occurs is inherently an indicator of the 'truth' of the judgment. So, while a discussion of validity could make a space for how to secure 'authentic assessment', a refoocusing on reliability tends to address issues relating to checks and balances on judgment decisions, both for individual assessors over time and for assessors working collectively on scoring. As Pitman, O'Brien and McCollow (2000) pointed out, 'a major tension … arises between privileging standardisation (under the rubric of reliability) and calling for assessment to be more 'authentic': that is, standardisation is at odds with a notion of assessment arising naturally from the learning situation (which pertains to its validity)' (p. 14).

In light of this reported tension, we present readers with three related provocations that bring together validity, reliability and equity. First, we need to invest in teacher judgment. Specifically, the education community could centre on judgment as the focus of professional development programs, accompanied by system support mechanisms including those provided through internal and external moderation networks. Second, it is not in the best interests of the education community to align teacher work more with contextualised assessment and the pursuit of validity, and standardised testing more with the pursuit of reliability.

Instead of such alignments, we invite readers to consider how the teacher is best placed to provide contextualised rich assessment evidence, and to engage in valid and reliable decision-making. A necessary precondition for this, however, is that education systems must be committed to bringing the quality assurance considerations of validity and reliability back to the core business of teaching, and more specifically, to classroom-based assessment. And for this to be realised, explicit provision needs to be made to support teacher judgment in the context of moderation activities involving professional discussion about how explicitly defined standards apply to a range of actual student work samples.

Currently, system moderation routinely occurs in Queensland only in the senior years of schooling as associated with high stakes assessment for certification purposes. While moderation across schools has inevitable funding implications, other quality assurance implications stem from the current absence of formal support for teachers in how they undertake assessment in the compulsory years of schooling.

The third provocation concerns standardised testing and how investment in procedures to measure students' performance in large scale standardised tests against
published benchmarks, of itself, will not address in/equity in schooling. While it is not reasonable to expect that schools will be able to produce a level playing field for all students, it is reasonable to expect that the uses of assessment information—and the quality of the assessment information itself—be investigated to check the role they play in producing and maintaining inequities. Finally, attention turns to consider some legal issues in relation to assessment practice.

**Issue 7: Legal issues in assessment practice**

Education law challenges in Australia have primarily focused on duty of care for physical safety, staff union and employment issues and staff and student discrimination issues. However, following trends overseas, it is likely litigation and legal challenges in the area of educational assessment will grow in the future. The accountability requirements for assessment and reporting, including the use of external system-wide tests and reporting, that we have discussed can lead to the threat of financial or other punitive measures, always just around the corner. They can lead to student profiling, and teacher, school and state-level identification. In Australia, accountability outcomes have so far led to increased financial access to assist in developing effective programs for low achievers. If, as overseas, punitive financial or other impacts do occur, legal reactions will eventuate.

More generally for education assessment, increased competition between schools, both across the government and non-government sectors and within sectors, have led to schools operating in a semi-commercial environment, with school promotional material targeting parent and student expectations of student outcomes, including learning. Clearly, parents and students will come to have expectations that the schools will deliver the results promised. These expectations can translate into the type of assessments, and their outcomes, that a school may put in place. Already, a number of universities have felt the impact of student challenges, especially from fee-paying students.

A third impact on the likelihood of increased legal challenge is the move to inclusivity in schools, and expectations that schools will provide appropriate learning opportunities, and outcomes, for all students. Accompanying this is the expectation that systems will provide appropriate assessment forms to accommodate all types of learners.

To date, the courts do not intervene in what are seen as institutional responsibilities such as education policy and practice. However, cases have been mounted in areas such as inappropriate assessment for students with special needs that have resulted in inappropriate placement, as well as general discrimination cases. A recent challenge in New South Wales, reaching the Supreme Court, challenged the appropriateness of accommodations made for a student with mild Attention Deficit Disorder for the Higher School Certificate examinations [Bl v Board of Studies [2000] NSWSC 921]. Advice to schools is that they should ‘put in place appropriate documentation and protocols to ensure that there are systems in place to minimise the risk of … claims’ (Stewart & Knott, 2002, p. 162). In particular, specific consideration will need to be placed on assessment processes that impact on significant school certification, subject selection or student placement. The observation of professionals, and indeed the courts, is that fear of litigation could lead teachers, and schools, to be more conservative in practice, with negative, rather than positive, consequences for educational quality (Ramsay & Shorten, 1996; Williams, 1996).
Conclusion

Education in the 21st century is a dynamic and exciting discipline. Students and teachers are engaging in learning dialogues of unprecedented complexity in recognition of changing times, changing needs, changing social groupings and, not least, changing technology. Education has become a significant political area, with resultant high focus on policies regarding educational content and accountability. Each of these dimensions of current educational contexts has import for educational assessment, ensuring that the traditional concept of 'testing' is to modern educational practice as the quill is to textual recording.

In this paper, we have only touched on some issues and practices engaging educational assessment. What we hope we have portrayed successfully is the ongoing and increasing complexity and significance of the role of good educational assessment in modern education practice, and the challenges that present in attaining such a goal.

References


Key Assessment Issues for the Future


229