

Re-imagining school-based assessment at the upper secondary education level

Cultures and understandings of assessment at the upper secondary education level are changing. Although selection and certification continue to be critical purposes for upper secondary education systems, contemporary assessment systems should serve multiple purposes. In particular, they should serve learning and provide meaning to all participants in the educational process.

Responding to this requirement has necessitated a rethinking of the nature, purposes, and roles of external and school-based assessment.

This paper charts the changing purposes and nature of school-based assessment at the upper secondary education level over time. It draws primarily on the curriculum and assessment histories in Australian States and Territories. It seeks to understand how school-based assessment has been positioned and repositioned over the past 40 years. It seeks to re-imagine and re-conceptualise the role of assessment, particularly school-based assessment, in emerging educational contexts.

Dr Antonio Mercurio
Executive Manager, Curriculum, Accreditation, and Recognition
SACE Board of South Australia
Adelaide, South Australia
Australia

July 2008

In a paper as brief as this one, there is a temptation to skip over the 150 years of history that might help to explain the development and nature of the assessment processes and practices we have in place today at the upper secondary education level, and march headlong into the core question at hand: how do we understand the nature, purposes, and roles of school-based and external assessment in the contemporary world, and secondly, why is this an important question at this time?

But all this would do would be to direct our view to the here and now, making little of the nature and dimensions of the assessment phenomenon, its deep roots put down in this very city in 1858, and its powerful lingering effects on 'how societies, groups, and individuals understand themselves'. (Stobart, 2008, p. 1)

There is also a temptation to skim over the assessment tussles in my own country, to simplify, in the interests of clarity, the local language and terminology that have accompanied our debates.

But this would mean that you might not make some of those connections with similar questions, debates, and institutional solutions adopted in your own country. How often do we read the accounts of other education systems and muse over the similarities of our dilemmas? The telling of our stories will emphasise the profound influence of the introduction by Oxford and Cambridge universities of the 'middle-class examinations' (Roach, 1971) on the secondary schools in England in the late 1850s, and intentionally, or by example, on a significant number of education systems around the world.

The first part of this paper sketches these defining public examinations: their role in drawing distinctions between the various stages of secondary education and their contribution to the formulation of a 'grammar of schooling' (Tyack & Cuban, 1995). I argue that school-based curriculum and assessment were introduced into the education systems in parallel with, or integrated into, public examination systems as the numbers of students accessing and remaining in secondary education grew. School-based curriculum and assessment were introduced not only to serve an increasingly diverse group of students, but also to serve differently those students who were aspiring to follow academic pathways.

The second part of this paper outlines some of the hopes that the school-based assessment reformers put forward. It looks at the definition of school-based assessment components that were adopted at the upper secondary level in Australia over the past 40 years and the moderation and quality assurance processes that accompanied these assessments to establish and maintain public credibility in them. This paper casts some doubts whether students experienced the education that the school-based reformers imagined and whether its intended outcomes were actually achieved.

The third part of the paper looks at the contemporary challenges to upper secondary education; its focus on learning for all students, on curriculum and assessment 'in the service of learning' (Broadfoot & Black, 2004, p. 16). It suggests that the expanded purposes of education require assessment to be re-imagined.

This paper is not in search of foundational, technical truths of assessment. Rather, it acknowledges that curriculum and assessment are social constructs and, as such, are imagined to provide certain societal goods. Thus the purpose of this paper is not to discuss the 'ideal weighting' of school-based assessment against external assessment at the upper secondary education level. Nor is it about whether there is a place for external assessment at all, or about the most defensible quality assurance techniques that can be used to warrant the inferences we make about our assessment judgments. Rather, it is about whether — given the changing cultures and expansion of purposes of curriculum and our contemporary understanding of what constitutes 'knowledge' and 'learning' — assessment, and in particular school-based assessment, can be re-imagined to provide new avenues that might deliver our goals.

A note about definitions

For the purposes of this paper, the terms 'school-based assessment' and 'external assessment' refer to those assessments that are summative, that is, those that count towards a final result or decision. As these are evolutionary notions, the characteristics, at least as they relate to Australian educational contexts today, could be said to be:

School-based assessment:

- The assessment task is set by the student's own teacher in accordance with the general assessment specifications set by an authority external to the school.
- Each individual student's performance is assessed by the student's own teacher; this assessment is moderated by processes developed by an external authority.
- The score counts towards the final result or decision.

External assessment:

- The assessment task or specifications are set by an authority external to the school.
- Each individual student's contribution to the assessment task is assessed.
- Each individual student's performance is assessed by a person appointed by an external authority (i.e. not assessed by the student's own teacher).

Thus, what is discussed in this paper is not what has been referred to as 'formative assessment' or 'assessment for learning', although these ideas are not unrelated to school-based or external assessments. Nor is it the intention here to equate only examinations with external assessments. The same range and diversity of assessment tasks can equally be school based or externally assessed.

Part 1: The Influence of the Middle-class Examinations

In many ways Australia is a child of the Industrial Revolution in Britain. Its education systems, particularly at the upper secondary level of education, also spring from British rootstock. The 'middle-class examinations' (Roach, 1971) were introduced in Britain as a solution to the weakness and inefficiency of the middle-class, secondary schools and were first administered by the Oxford and Cambridge Local Examinations in 1857 and 1858 respectively.

This form of public examination was a 'cultural import' (Musgrave, 1992, p. 307) transplanted and adapted in Australia with the establishment of its first universities: University of Sydney (1850), University of Melbourne (1853), University of Adelaide (1874), University of Tasmania (1890), University of Queensland (1909), and the University of Western Australia (1911). These universities appointed professorial committees that oversaw not only their matriculation examinations, but also the school examinations (in their own State but also in other States awaiting the establishment of their own universities).

Alongside the school examinations there quickly developed complex machinery for assessment: a theatre of objectification composed of examination halls, desks, timetables, clocks; documentation in the form of syllabuses, examination papers, past examination papers, examination scripts, marks schemes, and chief examiners' reports; and, the establishment of new societal roles such as chief examiners, markers, invigilators, and of course, candidates.

Roach (1971) describes the concept of public examination as winning 'a very sudden and sweeping victory within two decades – roughly between 1850 and 1870 ... By 1900 it was clear that public examinations had come to stay'. (p. viii)

Under the auspices of the universities, schools and schooling itself were very quickly influenced by the 'aristocratic curriculum' (Musgrave, 1992, p. 307). To give an example, it would be true to say that the University of Adelaide created, maintained, and substantially controlled the curriculum in secondary schools in South Australia for the best part of a century (1876–1968). It was able to do this by putting in place and systemically consolidating a system of public examinations. From its inception, the University of Adelaide was responsible not only for the conduct of its Matriculation Examination, but also for a range of other public examinations. More important than its administration of its own Matriculation Examination, the University of Adelaide's conduct of the Preliminary Examination (a prerequisite for those who wished to sit other public examinations) and the University Primary Examination established for the university a role with schools that could not be discarded easily during the twentieth century.

As early as 1887 there was 'vertical integration' (Teese, 2000); that is, the Preliminary Examination led to the Junior Public Examination, which, in turn, led to the Senior Public Examination, which acted as the matriculation examination for university entrance. Thus the influence of the Senior Public Examination drifted down to the lower secondary levels. Miller (1986) argues that the founding of the University of Adelaide:

... marked a significant turning point in the development of secondary education in the colony: through a series of public examinations, it helped unify and systematise secondary education around a model of competitive academic curriculum, and began transforming it into a stage, rather than a specific form, of education. (pp. 114–15)

Similar arguments about the transformation of education into stages and classes have been put forward, citing the influence of the 'middle-class examinations' (Roach, 1971) on the organisation of a secondary stage of education, and the transformation or adaptation of 'really useful knowledge' or 'utilitarian' subjects to the classical tradition. Some writers refer to the developments in Australia (Musgrave 1992; Teese 2000), and others to the developments in Britain, for example, the evolution of the School Certificate in England in the early years of the twentieth century (Goodson, 1997; Stobart, 2008).

Although the six States and two Territories in Australia have different histories of education provision, all the upper secondary education systems have strong connections with this tradition of public examinations. When the numbers of students wanting to access elementary education and the lower levels of secondary education grew exponentially in the 1940s and 1960s respectively, the need for competitive, selective public examinations at the lower levels of education diminished. In South Australia the Progress Certificate Examination (marking transition from elementary to secondary education) was discontinued in 1962, the Intermediate Certificate Examination in 1968, and the Leaving Examination in 1974. This meant that the responsibility for the definition of curriculum and assessment for the major part of school education could effectively be devolved to schools.

Wolf (1997) explains this gradual, upward shift in the importance placed on the various rungs in the ladder of qualifications as a response to the 'tyranny of numbers'. Wolf argues that in the industrialised world:

in the second part of the nineteenth and early twentieth centuries, the educational system was very visibly a steep pyramid ... Today, the countries which 90 or 100 years ago shared this structure, share another, very different one — one marked by universal secondary education and the need to collect formal qualifications for apparently ever increasing periods of time. (p. 2)

Thus, in the latter part of the twentieth century, transition between stages of education was no longer necessarily punctuated by competitive, selective public examinations.

Similar patterns of upper secondary education were mirrored in other Australian States and Territories.

The removal of public examinations from the primary and secondary education ladder meant, in Australia, considerable freedom for teachers in curriculum and assessment at the compulsory levels of education. By the late 1960s a role for school-based assessment was being proposed for even the highest secondary education level certificate examinations. But what role and place were imagined for school-based assessment?

Part 2: Imagining School-based Assessment

In Australia in the late 1960s and early 1970s there were some significant initiatives in school-based assessment. Three examples, all of which occurred during 1969, convey some idea of the impetus and rationale for school-based assessment that had grown in some Australian States at this time.

The first of these examples was the report of the Dettman Committee in Western Australia. It argued that:

Secondary education has long been dominated by the requirements of external examinations ... The result has been that teachers have concentrated on the examinable aspects of the curriculum almost to the exclusion of everything else. External examinations not only act as a constraint on proper curriculum development and teaching methods but also are unreliable instruments of evaluation based as they are on a limited sample of work at a particular time. Hence we have recommended that external examinations be discontinued and replaced by internal school assessments. (1969, p. 1)

The second example was the introduction in South Australia of a Secondary School Certificate, a qualification based entirely on school-based assessment, designed to run in parallel, and as an alternative, to the Matriculation Examination managed by the Public Examinations Board of South Australia. Although this certificate was awarded in the final years of secondary schooling it was not accepted as entry-level preparation for university studies.

The third example, and perhaps the most influential, was the work of a committee established and chaired by W.C. Radford, Director of the Australian Council for Educational Research, which recommended that the Junior and Senior Examinations in Queensland be replaced by school assessment. In a chapter of the report entitled 'An Examination of Examinations', Radford chronicles the arguments put forward as the benefits and effects of public examinations on the student, the teacher, and the school.

For the student, the claims of the benefits of public examinations include that 'he obtains ... an objective and independent estimate of his progress and attainments'; that the

examination 'acts as an incentive to effective study and sustained application' and 'serves as a tangible goal'. For the teacher, public examinations assist 'the teacher to assess his own achievement with the students'; 'induce him to treat his subject thoroughly'; 'provide an incentive to him to organize study for his students'; 'require him to give attention, not only to his best students, but also to the slowest amongst them'; and provide, through prescribed, accredited syllabuses, 'an approach that has wide acceptability'. For the school, public examinations would provide 'a knowledge of the quality both of its teaching and of its students'. (pp. 54–5)

To this list of benefits was added one other claim based 'on social grounds':

In ordering of social life, some selection has to be made between people for one purpose or another. For some of these purposes the public examination is, it is said, *the only fair, objective and impersonal way in which such selection can take place*. The individuals are unknown to the examiner and to the markers, and therefore selection is on assessed merit only. (p. 55, emphasis added)

Counter-claims were put about 'the harmful effect' of public examinations on the student, teacher, and school. These included, for the student, 'setting a premium on his power to reproduce other people's ideas'; 'rewarding evanescent forms of knowledge'; 'favouring a somewhat passive type of mind interested in absorbing information'; 'encouraging the clever use of slender attainment rather than the recognition of the need to improve understanding'. For the teacher, public examinations 'constrain him to watch the examiner's foibles and note idiosyncrasies rather than to teach as he thinks a subject requires'; encourage him to 'impart information in too digested a form, or to select groups of facts of the subject to be learnt by rote rather than to be understood'; 'predispose him to set too much value on a particular type of mental development which secures success in examinations'; 'make it important to him to excel in teaching the examinable side of his professional work'; and 'constrain him to concentrate on a definite syllabus and place a barrier in the way of experimentation'. (p. 56)

Other criticisms of public examinations included the unfairness of making a judgment on the basis of a one-off examination; that they are not a valid test of the student's learning; that public examinations are perceived as 'contests, with the examiner on one side and the pupil, teacher and parents on the other'; 'the examiner, by public pressure, is kept within narrow limits of the kind of paper he sets'. (p. 57)

In putting forward the arguments for the introduction of school-based assessment, the reformers made mention that 'internal assessment reflects the collective judgment of a number of people over a period of time'; that 'teachers are able with considerable accuracy to place their students in an order of merit both in achievement and likely success in future studies'; that 'the undesirable "backwash" effect of external examinations, such as cramming, reluctance to experiment, or teaching towards the examination, will be ... considerably reduced'; that 'while both types of examination can

lead to rigidity in teaching, it is easier for the school-based examination to change than the external examination'. (pp. 60–1)

The reformers further argued that:

In traditional systems, examinations were the tools of elimination and selection. In contemporary education, examinations attempt to determine where the potential is and how it may best be developed. The opportunity to test more frequently, less cumbrously, and to assess achievement more reliably through cumulative recording of test results is seen as one of the ways of ensuring that each student is given the treatment best suited to his needs and capabilities. (p. 60)

A fully school-based (norm-referenced) assessment system, where results counted toward university entrance, was introduced in Queensland in 1972. The rationale expressed by the Radford Report was repeated several times over in other Australian States and Territories, and certainly echoed in other assessment jurisdictions in many parts of world. Although fully school-based assessment systems were put in place in Queensland and the Australian Capital Territory (1976), in other States and Territories school-based assessment occupied proportions of the overall assessment schemes. For example, in South Australia school-based assessment occupied 25% of the assessment scheme in 1978, and 50% in 1983. Keywords of the 1970s to 1980s were the 'dominating influence' of the (university) public examinations, with most States and Territories opting to strike a 'balance' — balance became the metaphor for many of the other assessment systems in Australian States and Territories.

The introduction of school-based assessment required major changes to the syllabus documentation, which began to include more detail about the aims, content, pedagogical approaches, and the assessment specifications. The level of description of what constituted school-based assessment varied considerably from 'highly defined' to 'loosely defined'. Current examples of the former are a Project Work, GCE Advanced Level Examination conducted by the Singapore Examinations and Assessment Board, and the Hong Kong Certificate of Education English Language Examination, oral component, offered by the Hong Kong Examinations and Assessment Authority. For these two school-based assessment components, the conditions under which the assessment is to take place is specified, including, for example, the type and length of performance, the role of the individual student in the performance, the criteria for presentation, the role of the teacher as assessment designer and assessor, and the weighting given to the presentation. At the other end of the spectrum is the loosely defined 'coursework', where teachers are given more scope to design what they consider to be the best ways of addressing the subject's objectives. Current examples of these are the 'coursework' conducted by the Board of Studies New South Wales, and to some extent the portfolio approach offered by the Queensland Studies Authority.

The school-based assessment reformers also designed moderation mechanisms to assure the public that the results of school-based assessments were comparable from school to school and from student to student. Even as early as 1971, the importance of the moderation mechanisms in ensuring the delivery of the goals of school-based assessment was clear:

One of the important features of the moderation system ... will be the help that it gives teachers in both assessment and approach to subjects. Although moderation will be almost entirely concerned with the assessments made by the schools, and will ensure comparability between these, it will be impossible for those responsible for moderation to overlook the syllabuses in use, and the method and depth of treatment used by the teachers. (Radford, 1971, p. 83)

In Australia three types of moderation models evolved: consensus moderation, moderation by inspection, and statistical moderation. The first two would fall within what Linn (1993) considers 'social moderation' (a family of methods for bringing standards into line through the exercise of professional judgment); whereas the third, statistical moderation, involves processes for adjusting the teachers' scores on school-based assessment according to the scores that students achieved in an external assessment component, usually a written examination or an aptitude test.

What is important here is the influence that the various moderation method(s) might have had on the teaching and learning processes, in either supporting or neutralising the desired effects of adoption of school-based assessment. For example, Wilmot and Tuson (2005) argued that statistical moderation, which often uses as its external reference point a written public examination, can stifle innovation in the classroom, and, in particular, can whittle away the professional skills of the teacher to design the assessment and make appropriate judgments.

Statistical moderation effectively puts control outside the centre and creates an ambiguous accountability. It will fall to the awarding body to provide a public justification for the moderated teacher-assessed marks as a contribution to the final grades. (p. 51)

Although school-based assessment has been in place in Australian States and Territories at the upper secondary level for some 40 years, it is not clear whether it has made the difference that had been anticipated. Many of the aspirations dealt with the quality of student learning and professional skilling of teachers. Do we have, for example, evidence that the quality of the learning is better? Are there better outcomes for more students? Has the negative backwash effect been decreased? Are students under less stress? Are the inferences we draw from these assessments valid? Are the teachers better skilled in curriculum and assessment design? Is the quality of the teaching better? Has the method of moderation that has been adopted promoted or hindered the desired outcomes? Surprisingly, there is little research to answer these questions.

Part 3: Re-imagining School-based Assessment

In this third part we examine some changing cultures and understandings of curriculum and assessment that require us to realign our assessment systems.

An important indicator of the cultural shift that is taking place is embodied in how we refer to the generation of young people who attend our schools. In the 19th and for a major part of the 20th century, they have been variously labelled as 'candidates', 'pupils', or 'students'. However, in the past 20 years or so we refer to them as 'learners', or even more purposively as 'post-compulsory students', 'trainees', 'school-based apprentices', or simply, 'young people'.

This shift in how we view our learners is tied to what we understand as learning (what does it mean to have learnt something?), to where learning takes place, to the role of teachers in the learning process, and in conducting assessments in the service of learning. As Havnes & McDowell (2008) put it: 'there is a search for 'new and more learning-oriented assessment structures'. (p. 3)

These shifts are tied to how we conceive the purposes of our assessments. Although selection and certification continue to be critical purposes for upper secondary education systems, contemporary assessment systems have to serve multiple purposes. Responsibilities are being placed at the feet of our learning institutions, whether they are schools, training sites, or universities, to ensure that citizens are provided with opportunities to learn. Nations expect at least 90% of their population will gain a first qualification at the completion of upper secondary schooling for personal, social, and economic well-being. The Australian Government has this percentage as its target. For Broadfoot & Black (2004):

The worldwide tendency for more young people to stay on longer in formal education that now increasingly includes higher education, coupled with a growing discourse of 'lifelong learning', has helped to shift attention towards how best to support students' learning, rather than to judge it. (p. 19)

What is expected of our learning institutions is complex and multifaceted; their purposes for being are not simple, or unique. Our assessments for upper secondary students must fit multiple purposes, simultaneously. (Mercurio, 2003; Newton, 2007; Stobart, 2008; Sheerman, 2008).

Strong challenges are being made to the way that knowledge and learning are conceptualised. There has been a shift from knowledge described in terms of 'content' to 'outcomes'. Johnson (1993) speaks of the tensions between systems that view knowledge as a noun and those that view knowledge as a verb; between those who view knowledge as being separate from the knower, and those who see knowledge as inextricable from the knower; between those who believe that knowledge is made by

those who have authority to do so, and those who believe that knowledge is made by everyone.

There is a shift from cognitivist views of learning to more sociocultural perspectives of learning, which:

draw our attention...to what learners with minds and bodies, home and peer cultures and languages, previous learning experiences, interests and values – bring to their learning environments and how that shapes their interactions with those learning environments. (Haertel, Moss, Pullin & Gee, 2008, p. 8)

There has been an expansion of curriculum purposes. The boundaries of what is taught and assessed are expanding in subject-specific, disciplinary, and interdisciplinary ways. There is a shift from 'insulation to connectivity between disciplines and subjects, and between knowledge and its application' (Young, 2008, p. 33). The expansion of curriculum purposes also includes paying attention to cross-curricula skills, variously referred to in Australia as 'generic skills', 'employability skills', 'essential learnings', and 'capabilities for citizenship'.

The challenge is to re-imagine assessment systems in view of these shifts. Assessment is being re-conceptualised in the service of learning. This is made clear in the recent review of secondary education in South Australia where 'the overriding focus of assessment should be to help learners to become better learners, and to gain in motivation and confidence as a result'. (SACE Review Report, p. 27)

Over the past 40 years or so many countries have introduced proportions of school-based assessment, ranging from 15% to 100%. There are many examples of systems that blend school-based assessment and external assessment. In some countries, rethinking has occurred whereby the proportion of summative coursework has been reduced, in others it has increased.

In 2011, South Australia, for example, will introduce a system with a blend of 70% school-based assessment and 30% external assessment. The rationale for these proportions is instructive, first, because of the framing of both modes of assessment to the service of learning, and second, because of the qualities of assessment that are considered as important:

While the Review Panel is proposing a greater reliance on teacher judgment in the new SACE, it also believes that there is a place for external assessment involving a range of strategies to review student learning. It holds this view for at least three important reasons:

- all young people deserve to have an opportunity to demonstrate their learning to others external to their learning environment. This can be an important part of the learning process, and it can add a sense of authenticity and importance to the completion of assessment tasks.

- having both internal and external assessment is a way of ensuring fairness in assessment. It allows for a different perspective to be brought to bear on the assessment of student learning; that is, a student's final assessment in a learning unit is not entirely dependent on one person.
- external assessment provides an additional mechanism for ensuring comparability of standards. (SACE Review, 2006, p. 130)

Interestingly, the three reasons given for keeping 'a place for external assessment' echo arguments that the school-based reformers used in earlier times, that is 'ensuring fairness in assessment', allowing for 'a different perspective', and the student's final assessment 'not entirely dependent on one person'. What this suggests is that the debate should shift from the mode of assessment, school-based and external, to the purposes and quality of the assessments themselves.

Discussion

'When the past is forgotten, its power over the present is hidden from view' (Kincheloe, 1997, p. xxxvi). A historical analysis allows us to place our questions and solutions on a wider canvas.

In the first part of this paper we saw the imposition of a frame of competitive, public examinations, by the universities, on the secondary schooling system. The competitive academic curriculum, assessed through a public examinations system, created and nurtured a 'grammar of schooling' (Tyack & Cuban, 1995). Public examinations, which were introduced to improve secondary schooling, essentially audited the nature of teaching and the curriculum. Selection was the principal purpose of such assessments.

In the second part of this paper we saw the gradual dismantling of the examination systems at all but the apex of the secondary school ladder. With this came varying blends of school-based and external assessments. School-based assessment was imagined to engage more students in the successful pursuit of learning. Selection and certification were the principal purposes of such assessments.

In the third part of this paper we saw the need for a rethinking of assessment given the primacy of learning for all. We saw challenges to our understandings of what is meant by knowledge and learning. Assessment systems and practices are changing to accommodate these new imperatives. Certification (learning), selection, and accountability are principal purposes of such assessments.

Cutting across these trends are some notions that explain why external assessment and school-based assessments are often presented as opposites ends of the spectrum: external authority/school; examiner/teacher; objectivity/subjectivity; anonymity/personalisation; direct/indirect supervision of assessments.

A way through these dichotomies is move away from, or place less value on the arguments about the source of authority in assessments, and to focus on the validation processes of the assessments. Can we stand behind the inferences we make about our judgments of students' performances? This is a key question. Validity is the primary concern of any assessment, be it produced through school-based or external assessment processes. Teachers and assessors [90% of whom in the South Australian system are practising teachers (Kilvert & Mercurio, 2007)] must understand what is meant by validation and to put in place teaching and assessment processes that lead to valid judgments. This is not an easy task.

We must move beyond debating the optimal blend of school-based and external assessment processes; the optimal mix of the 'assessment cocktails' (Stobart, 2008, p. 114). Both produce scores and decisions that are summative. Both are regulated covertly and overtly through curriculum and assessment specifications and procedures. Definitions of what is 'school-based assessment' and 'external assessment' were offered in this paper, and the point made that these are evolutionary terms, and that there is a blurring of these terms. For example, some school-based assessments are so highly defined that one could argue they act as 'external'. Some external assessments display some of the characteristics more aligned with school-based assessment; for example, students performing live in front of an audience in which, along with the external assessor, is the student's own teacher who has an input into the decision.

If the focus of our re-imagining is on better learning for more learners, then it is important to examine our assessment processes to see whether they are delivering what we claim they are delivering. Our claims about the benefits or otherwise of school-based or external approaches should be based on research, not mere assertion or anecdote. Our teachers are the key to our re-imagined assessment systems. Their capacities to understand curriculum and assessment must be nurtured, if there is to be better learning for more learners.

References

- Broadfoot, P., & Black, P. (2004) 'Redefining assessment? The first ten years of *Assessment in Education*', in *Assessment in Education*, Vol. 11, No. 1, March, pp. 7–27.
- Goodson, I.F. (1997) *The changing curriculum: Studies in the postmodern theory of education*, Counterpoints, Vol. 18, Peter Lang Publishing, New York.
- Haertel, H.H., Moss, P.A., Pullin, D.C., & Gee, J.P. (2008) Introduction. In Moss, P.A., Pullin, D.C., Gee, J.P., Haertel, H.H., & Young, L.J. *Assessment, equity and opportunity to learn*, Cambridge University Press, New York.
- Havnes, A., & McDowell, L. (eds) (2008) Introduction: Assessment dilemmas in contemporary learning cultures, in *Balancing dilemmas in assessment and learning in contemporary education*. Routledge, New York.
- Johnson, P.H. (1993) Assessment as Social Practice. In Leu, D.J., & Kinzer, C.K. (eds), *Examining Central Issues in Literacy Research, Theory and Practice*, National Reading Conference, Chicago.
- Kilvert, P., & Mercurio, A.M. (2007) *Upper secondary level of education: Who assesses?* Keynote presentation to the Education Research Conference, Flinders University of South Australia, November, pp. 1–18.
- Kincheloe, J. (1997) Foreword to *The changing curriculum: Studies in social construction* by I.F. Goodson, *Studies in the Postmodern Theory of Education*, Vol. 18, Peter Lang Publishing, London.
- Linn, R.L. (1993) 'Linking results of distinct assessment', in *Applied Measurement in Education*, Vol. 6, No. 1, pp. 83–102.
- Mercurio, A.M. (2003) *Questions as answers: Understanding upper secondary selection and certification practices in South Australia, 1950–2000*, Senior Secondary Assessment Board of South Australia, Adelaide.
- Miller, P. (1986) *Long division: State schooling in South Australian society*, Wakefield Press, Adelaide.
- Musgrave, P.W. (1992) *From humanity to utility: Melbourne University and public examinations, 1856–1964*, Australian Council for Educational Research Ltd., Hawthorn, Victoria.
- Newton, P. (2007) 'Clarifying the purposes of education assessment', in *Assessment in Education: Principles, Policy & Practice*, Vol. 14, No. 2, pp. 149 – 170.
- Queensland, Committee Appointed to Review the System of Public Examinations for Queensland Secondary School Students and to Make Recommendations for the Assessment of Students' Achievements. 1970. (W.C. Radford, Chair), *Public examinations for Queensland secondary school students: Report*, Dept of Education.
- Roach, J. (1971) *Public examinations in England, 1850–1900*, Cambridge University Press, Cambridge.
- South Australian Certificate of Education Review (2006) *Success for all: Ministerial review of senior secondary education in South Australia: SACE Review, Final Report*. (Hon. G. Crafter, Chair, Crook, P., & Reid, A.), Hyde Park Press, Adelaide.
- Stobart, G. (2008) *Testing times: The uses and abuses of assessment*, Routledge, London.
- Teese, R. (2000) *Academic success and social power*, Melbourne University Press, Melbourne.

Tyack, D., & Cuban, L. (1995) *Tinkering toward utopia: A century of public school reform*, Cambridge, Mass.

United Kingdom. House of Commons. The Children, Schools and Families Committee. (2008) *Testing and assessment: Third report of session 2007–08*, (Hon. B. Sheerman, Chairman), Vol. 1, HC 169-1, 13 May.

Western Australia. Committee on Secondary Education (H.W. Dettman, Chair) (1969) *Secondary education in Western Australia*, Education Department, Perth.

Wilmot, J., & Tuson, J. (2005) *Statistical moderation of teacher assessments: A report to the Qualifications and Curriculum Authority, QCA*, London, viewed 31 August 2006,
<http://www.qca.org.uk/download/statistical_moderation_of_teacher_assessments_pdf_05_1606.pdf>.

Wolf, A. (1997) *The tyranny of numbers*, based on an inaugural lecture delivered at the Institute of Education, University of London, 14 October 1996. Institute of Education, University of London.

Young, M.F.D. (2008) *Bringing Knowledge Back In*, Routledge, London.