Outcomes based education: Where has it come from and where is it going?

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This paper examines some of the research for outcomes-based education in Australia. It does not claim to be a comprehensive review – only indicative of the sorts of research behind a movement that has frequently been dismissed as being only ideologically driven. It traces the genesis of the OBE movement in the USA, how it developed in Australia in the 1990s and in particular the way in which it developed in WA. It highlights some of the research that informed the critical theoretical bases of the WA Curriculum Framework, viz, the development of the overall principles and the more specific principles of teaching, learning and assessment.

Outcomes and outcomes based education (OBE) have almost become terms of abuse in some Western Australian education circles and amongst sections of the public in WA after sustained attacks by the lobby group PLATO (People Lobbying Against The Outcomes) and the local newspaper, The West Australian. Despite this, the Curriculum Framework, with ‘outcomes’ as its conceptual organiser, remains the one mandated document for all Western Australian schools (one to which all schools and systems readily signed up); the WA Government still supports the Curriculum Framework, albeit with many major and minor modifications to the policies and procedures for its implementation; and many schools and teachers in government, independent and Catholic continue to find outcomes a useful and effective way to inform their teaching. A very recent paper by Tognolini (2006) summarised the Framework well.

Western Australia has a state-wide, mandated standards-referenced system, as defined by the Curriculum Framework and its progress maps. This system is characterised by a curriculum structured into eight learning areas, which in turn are described in terms of outcomes (composed of aspects) which are divided into eight levels that represent the ‘path of learning’ for that learning area (p.3).

While bitter controversies have enveloped parts of the WA school community over OBE in schools, this has not been the situation in the Vocational Education and Training VET sector which has, like the rest of Australia, embraced competency based training (CBT). CBT has the same educational, social and political origins as outcomes based education. Nor has there been the same degree of angst generated in other states of...
Australia over what was, after all, a movement which began at the national level and was taken up by each and every state during the 1990s and which continues in all of them in some form or another, despite occasional broadsides against it from The Australian newspaper and pronouncements about its deficiencies from the previous Prime Minister, John Howard and his Education Minister, Julie Bishop.

It thus seems timely to step back a little and examine what was intended by the creation of the WA Curriculum Framework with its focus on outcomes based education and recognise some of the research behind it. In particular, the constant assertion of critics that it is 'ideologically based' needs to be addressed because, while a case can be made for any educational position being informed by ideology, most educational reforms and counter reforms do not arise entirely from ideology. OBE has a more substantial evidence and research base than the education system that preceded it – and to which many critics would have us return.

Why outcomes?

In all the recent heat of debate about OBE rarely is the term 'outcomes' defined or explored. Nor is it recognised that the term is not one of abuse in any other arena other than education. A cursory search on the Web for 'outcomes definition' yields an astonishing array of documents about outcomes and their use. Less than half of them apply to education. 'Outcomes' are now commonly found worldwide in policy documents about public health and medicine, in agriculture, in community services and community development, in psychology, in defence and in business – and in government policy generally – as the references below indicate.

- Results of a process, including outputs, effects, and impacts. www.qaproject.org/methods/resglossary.html
- The results of surgery in terms of patient satisfaction, reduction of pain, improved function etc. Outcomes are tracked by hospitals and practices. www.finsbury.org/patients/patient-glossary/
- Outcomes are those changes, either favorable or adverse, in the actual or potential health status of persons, groups, or communities that can be attributed to prior or concurrent care. www.barnetpet.pct.nhs.uk/support_advice/jargon_buster/jargon_buster.asp
- The results that the Government seeks from Defence, and are achieved by the successful delivery of its outputs, to the standards set in the portfolio budget statements. www.defence.gov.au/budget/04-05/dar/07_96-slossary.htm
- Goods or services produced in the production process. www.turnerlearning.com/ects/bball/econglos.htm
- The impacts on, or the consequences for, the community, of the outputs or activities of the Government. www.fish.govt.nz/en-nz/Publications/Annual+Report+2004/Glossary+Of+Terms/
- Documented changes in patients' performance and conditions in relation to the interventions employed, and related to the costs of provision of service. www.aphasia.com/resources_glossary.html

In essence, an emphasis on outcomes defines long term, broadly defined goals and objectives and holds participants accountable for achieving those. The choice of policies, processes and procedures is made by participants on the basis of their professional judgement - which should or could be informed by relevant research, practice wisdom and the needs of all those involved.

The definitions included in some of the statements above are little different in intent (in relation to their particular field of study) from the definition of an 'outcomes approach' in the WA Curriculum Framework (Curriculum Council, 1998), viz.

An outcomes approach means identifying what students should achieve and focusing on ensuring that they do achieve. It means shifting away from an emphasis on what is to be taught and how and when, to an emphasis on what is actually learnt by each student (p.14).

Divorced from all of the hysteria of recent years it is hard to take exception to the notion of schools and teachers focusing their efforts on what students learn and on what they achieve. Of course, like any other broad policy statement, trying to enact this has proved to be more problematic.

The USA experience of OBE

Like much in educational innovation, OBE in Australia was modelled on the American response to particular social and political pressures of the 1960s and 70s. Hodge recently reviewed the societal and theoretical origins of CBT (2007, p.180). On the societal side he points to the way in which Americans were shocked by the Soviet Union’s launching of Sputnik in 1957. This led to much soul searching about their education system and how it should be structured to best prepare future American citizens in a world in which it was assumed that the USA needed to regain technological superiority. He noted three important policy shifts that occurred there in response to this concern.

1. A legitimisation and operationalisation of a federal role in education
2. "Disquiet about dropout rates from secondary schools and the difficulties experienced by graduates in securing and maintaining employment" (p.183) which led to a review of vocational programs and legislation.

3. Attention to the preparation of teachers which resulted in federally funded teacher education programs with more emphasis on behavioural objectives on one hand and the accountability of teachers on the other (pp.184-5).

On the theoretical side Hodge identifies the significance of

1. behaviourism, which led to an emphasis on the identification of clearly defined behavioural objectives (deriving from the work of early learning researchers such as Skinner, Thorndike, Tyler and Gagné), and

2. mastery learning, with its emphases on the need for and capacity of learners to succeed - given the right conditions such as time, opportunity and support (influenced by researchers such as Carroll, Bloom and Glaser).

However, as Hodge pointed out, at this time, training was understood to be different from education in so far as its purpose was to produce uniformity in behaviour, whereas education was intended to produce singularity (p.197). While few involved in VET (or education) these days would make this distinction it was an important departure point for those who subsequently embraced and defined OBE, for it was the focus on bigger picture, 'over-arching outcomes' (which is how they are described in the WA Curriculum Framework) that became an essential understanding of it.

Willis and Kissane (1995), reviewing the literature on OBE (mostly from the USA) for the Education Department of WA, identified three basic premises of OBE.

- Decisions about what to teach should be driven by the outcomes we would like students to exhibit at the end of their education experience (p.2).
- All students can achieve learning outcomes of significance so long as the conditions necessary for their success are met (p.3).
- Accountability for schools and for school systems should be in terms of student outcomes (referred to as outputs) rather than in terms of what is provided by way of curriculum, hours of instruction, staff student ratios, school buildings, equipment or textbooks or support services (referred to as inputs) (pp.4-5).

Forster (1996), looking for the lessons to be learned from the USA about outcomes based education summarised the three broad types of outcomes based education categorised by Spady and Marshall, viz.

- 'Traditional' outcomes-based education [built on]... the development of desired learning outcomes within pre-existing subject content (p.90).
- The 'Transitional approach' [that]... sets out the outcomes that will be required by students when they graduate (exit outcomes) and stresses higher-level competencies such as critical thinking and complex problem solving (p.90).
- 'Transformational' outcomes-based education [which is]... also concerned with exit outcomes of students but defines these in terms of complex role performances that are grounded in real-world contexts (p.91).

Spady, responding in an interview with Ron Brandt in 1991, decried the confusion there often was between these different types of OBE and the way in which nothing essentially changes in teaching and learning if schools and systems only pursue the first two types of OBE (1992/3). Perhaps presciently, he also lamented what he saw as the way in which "We have a long history in this country [ie, the USA] of taking good ideas and bringing them down to such, low common denominators that they're unrecognisable and unappealing" (p.69) He was equally adamant that "You cannot mandate outcome based education and hope to have it successfully implemented" (p.70) - a caveat that was not heeded in WA.

While many critics have been quick to say that the USA has abandoned OBE it would perhaps be more precise to say that only some states (or rather school districts, as it is within districts in the USA that schools are primarily organised) adopted any form of OBE in the first place. Of those that did, even fewer tried to adopt transformational outcomes based education. Since the 1990s most of what was then seen as OBE has been overtaken by the 'standards movement', which certainly has its antecedents in OBE. However, the moves by the US Federal government, through legislation to tie school funding to tightly defined targets measured by standardised tests, as in No child left behind (NCLB), are a far cry from what Spady envisaged or indeed, what was envisaged in WA when the Curriculum Framework was first written. Australia (WA included) continues down this path with the increasing use of standardised tests to provide evidence of students' learning, despite concerns by educators about the limitations of standardised tests to demonstrate this as well as their other negative impacts on students. Standardised tests, while high on validity and reliability, are totally unsuitable for assessing the wide ranging educational objectives such as those described in the Australian National Goals of Schooling (see below) and as such are antithetical to the philosophical basis of OBE.

The Australian experience

Teachers in Australia first began working with OBE through the National Curriculum Statements and Profiles developed under the guidance of the
Curriculum Corporation and published in 1994. Collins (1995) described the Statements and Profiles as a collaborative effort to build a common frame for the entire school curriculum at national level through the development of an agreed vocabulary, agreed key learning areas each defined by a statement, and an agreed ‘profile’ of learning progress for each key learning area (p.12).

The then Labor federal government made funds available under the National Professional Development Program (NPDP) and professional associations in conjunction with universities were able to apply for money to develop projects within and between states that would support teachers and schools to work with and understand the Statements and Profiles. As noted in MCEETYA’s National Report on Schooling in Australia of 2002

The national statements and profiles were developed for eight agreed key learning areas between 1990 and 1993. The work was undertaken as part of a concerted effort by ministers to identify and promote what was agreed and common in Australian school education at the time. Their development was preceded by the first declaration of National Goals for Schooling in 1989, and followed by their referral to States and Territories in 1993 for consultation and review. As a result, the Statements and Profiles became the dominant influence on curriculum development in each of the States and Territories.

The Statements and Profiles were very much inspired by an outcomes focus because they had grown out of the Common and Agreed Goals for Schooling in Australia (the ‘Hobart Declaration’) that had been adopted by all States and Territories and the Commonwealth in 1989 (subsequently updated in 1999) (MCEETYA, 1989; 1999). These were long term aspirational statements which in this instance were called ‘objectives’ but might equally well have been described as intended ‘outcomes’ as they very much reflect the principles later described by Willis and Kissane (see above). The ten agreed goals of schooling were:

1. To provide an excellent education for all young people, being one which develops their talents and capacities to full potential, and is relevant to the social, cultural and economic needs of the nation.
2. To enable all students to achieve high standards of learning and to develop self confidence, optimism, high self esteem, respect for others, and achievement of personal excellence.
3. To promote equality of education opportunities, and to provide for groups with special learning requirements.
4. To respond to the current and emerging economic and social needs of the nation, and to provide those skills which will allow students

maximum flexibility and adaptability in their future employment and other aspects of life.
5. To provide a foundation for further education and training, in terms of knowledge and skills, respect for learning and positive attitudes for life long education.
6. To develop in students
   • the skills of English literacy, including skills in listening, speaking, reading and writing
   • skills of numeracy, and other mathematical skills
   • skills of analysis and problem solving
   • skills of information processing and computing
   • an understanding of the role of science and technology in society, together with scientific and technological skills
   • a knowledge and appreciation of Australia’s historical and geographic context
   • a knowledge of languages other than English
   • an appreciation and understanding of, and confidence to participate in, the creative arts
   • an understanding of, and concern for, balanced development and the global environment; and
   • a capacity to exercise judgement in matters of morality, ethics and social justice.
7. To develop knowledge, skills, attitudes and values which will enable students to participate as active and informed citizens in our democratic Australian society within an international context.
8. To provide students with an understanding and respect for our cultural heritage including the particular cultural background of Aboriginal and ethnic groups.
9. To provide for the physical development and personal health and fitness of students, and for the creative use of leisure time.
10. To provide appropriate career education and knowledge of the world of work, including an understanding of the nature and place of work in our society.

However, the revised version in 1999 (the ‘Adelaide Declaration on National Goals for Schooling in the 21st Century’) placed an even greater emphasis on defining curriculum in terms of the learning areas in addition to the more broad ranging objectives of the earlier version (MCEETYA, 1999). Since then the MCEETYA National Reports on Schooling have increasingly focused on states reporting on their ‘measurement’ of the performance of schools as opposed to more generally demonstrating that schools were ‘meeting’ the national goals with ever more emphasis being placed on standardised tests as ways of undertaking that measurement despite their inability to effectively ‘measure’ many aspects of them such as ‘respect for our cultural heritage’, ‘concern for, balanced development and the global environment’, ‘judgement in matters of morality, ethics and social justice’, ‘appreciation and understanding of, and confidence to participate in, the
creative arts', or 'respect for learning and positive attitudes for life long education'.

The Western Australian experience

As in other states, teachers in WA began working with outcomes through the national Statements and Profiles. The NPDP funding, intended as it was to support a national curriculum (and a national agenda) attempted to bypass state governments and other state systems. However with the defeat of the federal Labor government in 1996 the enthusiasm (at that time) for a national curriculum waned.

By then however, all the states had adopted in some shape or form, the national Statements and Profiles. The formal WA government response to this came in 1997 with the passage of the Curriculum Council Act in 1997. The Act's objects were to

a) establish the Curriculum Council;

a) provide for the development and implementation of a curriculum framework for schooling which, taking account of the needs of students, sets out the knowledge, understanding, skills, values and attitudes that students are expected to acquire;

a) provide for the development and accreditation of courses of study for post compulsory schooling; and

a) provide for the assessment and certification of student achievement (p.4).

While the phraseology was not that of outcomes per se, the purpose was quite clear. There are two additional points of interest here. In the first instance, the Act did not specifically state that they were to be long term outcomes. Secondly, the inclusion of the "development and accreditation of courses of study for post compulsory schooling" ensured from the beginning the possibility of courses in the post compulsory years not being outcomes based.

When the Curriculum Framework itself was developed and published in 1998 there were further contradictions that again suggested that at most WA's education reforms were to be outcomes inspired rather than outcomes based. Indeed, from the beginning the Framework referred to an 'outcomes focus' rather than 'outcomes based'. Of equal importance was the fact that, while the phraseology was not that of outcomes per se, the purpose was quite clear. There are two additional points of interest here. In the first instance, the Act did not specifically state that they were to be long term outcomes. Secondly, the inclusion of the "development and accreditation of courses of study for post compulsory schooling" ensured from the beginning the possibility of courses in the post compulsory years not being outcomes based.

1 Compulsory schooling in WA will be for students aged 6 -17 from 2008.
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Achievement orientation (which is closely related to high expectations) in which teachers believe and demonstrate that all students can learn and that they can help all students learn.

Cooperation with families and the community;

Educational leadership which is shared among the administration, staff and community;

Frequent monitoring of students’ progress using a variety of assessment procedures which are used to improve student performance and improve the instructional program;

Time, opportunity to learn and 'structure' as the main instructional conditions (Scheerens, p.46).

The seven principles of the Curriculum Framework “guide schools in whole school planning and curriculum development” (Curriculum Council, 1998, p.16) and are clearly drawn from the ‘effectiveness’ literature. The seven principles of teaching and learning expand on these, providing descriptions of the “provision of a school and classroom environment which is intellectually, socially and physically supportive of learning” (p.33).

An encompassing view of curriculum

The notion that “curriculum is much more than a syllabus”, which is what this principle declared, was a surprise to many teachers.

Curriculum ... is dynamic and includes all the learning experiences provided for the student. It encompasses the learning environment, teaching methods, the resources provided for learning, the systems of assessment, the school ethos and the ways in which students and staff behave towards one another (p.16).

However, there is a plethora of research identifying factors, other than the syllabus, that impact on learning. As early as 1907 Maria Montessori spoke of the importance of the ‘prepared environment’ and Rudolph Steiner at about the same time stressed the need to provide a learning environment that was aesthetically pleasing to children and teachers alike. Crookes (1988), Torrance (1995) and others clearly demonstrated the impact of assessment on learning. Motivation, enjoyment and confidence, teaching methods, the resources provided for learning, the systems of assessment, the school ethos and the ways in which students and staff behave towards one another (p.16).

An explicit acknowledgment of core values

The recognition that “people’s values influence their behaviour and give meaning and purpose to their lives” (Curriculum Council, 1998, p.16) has been given greater clarity in the development of identifiable ‘core values’ which are embedded in the Curriculum Framework. Hill (1996) pointed out that curriculum is never free of values, even if an analysis of the national statements and profiles revealed very few references to belief, commitment, ethics, morality, responsibility, human rights or values. From 1994-1997, leaders of the major faiths in WA (Anglican, Catholic, Jewish and Islamic) worked together to develop a common charter of ‘agreed minimum values’ consisting of sixty robust value statements ranging from ultimate values, through democratic values, to educational values. With support from the then Education Department of WA, teachers framed specific values outcome statements, trialled them in a large number of schools and, after some time and rewriting, these were included in the Curriculum Framework. Thus, the learning outcomes describe the values, as well as knowledge, skills and attitudes, that students are expected to learn – the first such document in Australia to do so.

Inclusivity

Inclusivity in education is primarily about accommodating the diversity of the student population. Schooling in Australia, as in almost all other countries in the world, is compulsory. However it has always been a challenge to know how to ensure that schooling meets the needs of all students. When the focus is primarily on the inputs of schooling, students are seen to have ‘problems’ or indeed, to ‘be the problem’ if they do not succeed in learning the education that is provided (the so called ‘deficit model’). When the focus shifts to learners and learning the assumptions are changed. In OBE it is expected that all students will learn, albeit in different ways and in different timeframes - and the ‘problem’ for the teacher then becomes how to provide for that diversity to ensure learning can take place. It does not mean, as has sometimes been alleged, that all students can, or should go to university. Nor does it mean that the content of schooling should be driven down to the lowest common denominator so

and notes the need for a supportive environment in which effective learning can occur. Thus, while students need to undertake research as well as reading the research of others, experiment as well as observe experiments, and write as well as read the writings of others, teachers need to support them to learn the processes, skills, knowledge and values required to understand the concepts and their applications. Full involvement in learning not only stimulates all senses (Laird, 1985) but is an active process in which students discover, construct new ideas and concepts based upon their current and previous knowledge (Bruner, 1962), requiring action and reflection (Kolb, 1984; Revans, 1980).

It does not mean, as has sometimes been alleged, that all students can, or should go to university. Nor does it mean that the content of schooling should be driven down to the lowest common denominator so
that all students can achieve everything that is presented. In fact, the very opposite is the case viz. that all students should be challenged and should strive to learn whatever their present capabilities, and this will inevitably mean that some will achieve more complex outcomes than others. The focus is on catering for "inclusivity and difference." This belief derives very much from the 'mastery learning' theorists (see above) and is supported by research and practice in the areas of multiple intelligences (e.g., Gardner, 1993), learning styles (e.g., Honey & Mumford, 1982), gifted and talented students, students experiencing educational difficulties (e.g., Shean, 1993), students at educational risk, students from culturally and linguistically diverse backgrounds, Aboriginal students, girls' education and boys' education (e.g., Collins et al, 1996).

Flexibility

Australia has always had to provide education for students in very different geographic locations and increasingly different social communities. To do so has required juggling different needs and different priorities. The Curriculum Framework asserts that it "... provides a balance between what is common to the education of all students and the kind of flexibility and openness required for education in the twenty first century" (p.17).

Each of the principles of teaching and learning incorporates this attitude of flexibility. It is explicitly stated in the Teaching and Learning principle of inclusivity and difference that students have a variety of past experiences shaped by their language, culture, health, location, values, abilities and disabilities, and previous education... Thus teaching must be highly adaptive, acknowledging, respecting and accommodating the diverse background experiences students bring to the classroom (p.35).

There is an expectation that teachers will know students' present knowledge, skills and values (Teaching and Learning principle, connection and challenge, p.34) and choose experiences that are 'potentially meaningful' (Teaching and Learning principle, action and reflection, p.34). "This does not imply the same environment for all" (Teaching and Learning principle, a supportive environment, p.36). These principles are echoed in theories related to 'engaged' learning in which students find a joy in learning through interactive, challenging, authentic, multi disciplinary learning experiences, sharing understandings with the support of a teacher acting as a guide and facilitator (Jones, et al, 1994).

Integration, breadth and balance

School, and indeed, VET and university curricula have often been criticised for their narrowness of focus. As the world has become more complex throughout the 20th and 21st centuries, policy makers have struggled to know how to provide systems of education, community and health services that meet the needs of specific groups while at the same time providing for the needs of the majority. So, for example, as there are more scientific advances in medicine, so more specialities have developed for doctors. But at the same time the biggest advances in general community health have come from public health programs such as improved sanitation or anti-smoking campaigns. Education is no different. This principle of 'integration, breadth and balance' was about trying to achieve this in the school curriculum. It maintained that "While opportunities to specialise must be provided to allow for specific talents and interests, all students need a broad grasp of the various fields of knowledge and endeavour" (p.17).

The Teaching and Learning principle, connection and challenge emphasises that learning experiences need to challenge current understandings, to reach the point of cognitive dissonance, where behaviours and attitudes change (Festinger, 1957). Reflection will be used to assist students "to make connections between apparently unrelated ideas and experiences and different areas of knowledge" (p.34).

A developmental approach

Fundamental to the whole notion of OBE was the understanding that student learning could be understood and monitored in terms of a progression. Early childhood educators have been influenced for decades by the research and theories of Jean Piaget and his successors in the field of developmental psychology who recognised that there is a broad developmental progression in children's cognitive, physical, social and emotional development. A developmental progression makes sense to families who see the growth and development of their children, and to students who clearly understand that they are able to do more things as they grow older. Articulating steps in the progression of learning was intended to make the learning process transparent, to "provide a language in which teachers can report on progress... and give a focus to discussion of individual progress which do not depend on comparisons with the progress of other students" (McGaw, 1995, p.84-85).

A developmental approach does not imply that all children develop in exactly the same way and especially not at the same rate, and the Curriculum Framework is explicit in stating this. In fact, "the decision to express the sequence for the 10 years of schooling [in the National Profiles] in eight not 10 levels reflected a deliberate effort to make clear that there
were no assumptions about rates of development" (McGaw, p.86). What it emphasised was that new learning is connected to the learner's own previous learning, not necessarily to the previous learning content defined by the teacher or through a syllabus.

Not all writers of the learning areas of the Curriculum Framework or of the Outcomes and Standards Frameworks that were produced by the then Education Department of WA (EDWA) to support teachers in assessing students' learning appeared to understand this. The latest work by the now Department of Education (DET) to produce a syllabus of supposedly developmental content continues this confusion. While there is broad agreement about the human domains of development there is always disagreement about 'developmental' progressions of content in any given area.

Collaboration and partnerships

Seeing education as a shared responsibility acknowledges the role of the parent as the first teacher and the impact of the community on students. This is another area where early childhood educators had already paved the way recognising that for young children learning inevitably involved parents and other community members. VET too has always been connected with industry, though not always comfortably, and universities have always had a dominant role in setting the agenda for upper school curricula, though again their role has often been contested. The emphasis in the Curriculum Framework however is somewhat different in phrasing it in terms of a 'collective responsibility' amongst all stakeholders.

The principle of Teaching and Learning of independence and collaboration, explains that "learning experiences should be structured so that students can learn not only from their immediate peers and teachers but also from family and community members and from people from other parts of the world" (p.36). Thus learning is situated in a community of practice around an area of interest, sharing information and activities, and creating ideas, solutions or artefacts (Lave & Wenger, 1990). At the same time, working individually is seen as “necessary and can help to ensure a personal grasp of concepts, processes and skills" (p.36).

While all these principles are easy to write about they are much more difficult to accomplish in practice as subsequent experience has shown. None of the education systems in WA, nor the Curriculum Council itself, fully understood the challenge the Curriculum Framework would pose for some teachers, and especially for those at upper secondary level. In hindsight a greater appreciation of this and more comprehensive planning to manage the changes might have prevented some of the subsequent problems that have occurred in its implementation.

Assessment

Looking at the Curriculum Framework's principles of teaching and learning from an assessment perspective, it is clear that if students are to have opportunities to learn, are to be provided with connection and challenge, as well as action and reflection, if they are to experience motivation and purpose, and the curriculum is to provide for inclusivity and difference as well as independence and collaboration in a supportive environment, then much more sophisticated types of assessment will be necessary. In this sense the principles of assessment are as necessary to support student learning as are the principles of teaching and learning. A primary purpose then is "for assessment to enhance learning" (Curriculum Council, 1998, p.37). However, the Curriculum Framework acknowledges another major purpose for assessment, viz. the reporting of student achievement (p.37). In hindsight, it was perhaps naïve to assume that these could comfortably coexist.

Willis and Kissane (1995) were as adamant as Spady (1991) that an essential part of OBE was its capacity to hold schools and teachers accountable for student learning – something which an emphasis on inputs cannot effectively do. Furthermore, OBE requires students to be assessed on what they know and are able to do against the predefined standards specified in each outcome (sometimes known as 'standards' or 'criterion referenced' assessment), not just in relation to each other ('normative', or 'norm referenced' assessment). As Tognolini (2006) pointed out in a recent report for the Curriculum Council arising from the contentious issue of applying the outcomes focus of the Curriculum Framework to senior secondary schooling in WA,

One of the main advantages of a standards referenced assessment system is that the results can indicate what it is students have achieved during the course. At the same time the scores that arise from the assessments can be used to locate the position of the students relative to the overall performance of the cohort. In other words, it is possible to assess performance for certification and credentialing, and, at the same time, use the same scores for university entrance purposes (as is currently the case) (p.3).

It should be noted, in passing, that 'standards referenced assessment' is not the same as 'standardised testing'.

Tognolini also neatly outlines some of the challenges posed by this approach that was really brought to the fore in this often acrimonious debate.

While the assessment process is quite straightforward, there are numerous points in the process that require judgement and
interpretation and these present significant challenges to teachers, examiners and administrators. Learning outcomes are intended to describe what it means to progress through an area of learning. This path is not deterministic and hence there is scope for this developmental sequence to be challenged by data. Setting examination questions and assessment tasks that accurately assess the learning outcomes that are consistent with the requirements of the standards and are technically correct (particularly when there is no opportunity to pretest the questions) is difficult. Setting marking keys that are fair, accurate and appropriate for the purpose for which the results are to be used and ensuring they are consistently applied is challenging. Accurately establishing the standards and presenting them to teachers, examiners and students in a manner in which they will all interpret them consistently is also a challenge, as is operationally defining the boundaries of the standards in the context of external and internal assessments (p.6).

This is not the place to review the playing out of the debate in WA before or since the release of his report late last year (and of the report by Andrich [2006] whose recommendations Tognolini endorsed), or of the problems that led their commissioning, but it does help to explain why it has proved to be so problematic - though not necessarily impossible.

The principles of assessment were developed to “enable judgements to be made about students’ progress towards the desired outcomes in a way that is fair and contributes to continued learning” (1998, p.37). These principles were that assessment should be

Valid – … provide valid information on the actual ideas, processes, products and values expected of students.

Educative – … make a positive contribution to student learning.

Explicit – … criteria should be explicit so that the basis for judgements is clear and public.

Fair – … demonstrably fair to all students and not discriminate on grounds that are irrelevant to the achievement of the outcome.


While, as noted above, the principles of assessment are, in many respects, a direct result of the principles of teaching and learning, their research base is primarily drawn from the areas of ‘formative assessment’ and ‘authentic assessment’.

Formative assessment (or formative evaluation, more generally) has a long history and like much in OBE, is not restricted to education. It is widely used in medicine, agriculture and many other professions. Some of the most influential writing in the area at the time that the Curriculum Framework was being written came from Black and William (1999a and 1999b) in the UK. In a later paper, summarising their earlier work, they maintain that

the term ‘assessment’ refers to all those activities undertaken by teachers, and by their students in assessing themselves, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged. Such ‘assessment becomes ‘formative assessment’ when the evidence is actually used to adopt the teaching work to meet the needs. (Black & William, 2001, p.2). [Authors’ emphasis].

Their work was influential because their review of the research to that time demonstrated that feedback to students did have a significant impact on student learning and in particular, in raising standards.

Authentic assessment ‘asks students to apply their knowledge and skills in the same way they would be used in the ‘real world’. The assessment is performance based and requires each student to exhibit their indepth knowledge and understanding through a demonstration of mastery.’ (Essential Schools Website). Grant Wiggins described and promoted the theory and practice of ‘authentic assessment’ in the early 1990s but it is also clearly related to competencies and mastery learning (Wiggins, 1990; 1993).

Two other influential researchers and writers at the time were Darling-Hammond (1994) in the US working on performance based assessment (closely associated with authentic assessment) and Boomer (a former CEO of the Schools Commission) in Australia on standards (1991).

Progress maps

Principles alone, however, were not sufficient for teachers to make judgments about student learning. The development of the Curriculum Framework Progress Maps for each learning area was seen as an essential part of supporting teachers and students in assessment

by describing the nature of achievement as students develop the outcomes described in the Curriculum Framework … [They were intended as] descriptions at each level … based on a developmental continuum of how students demonstrate their knowledge, skills, understandings, values and attitudes in increasingly challenging contexts (Curriculum Council, 2005, p.5).
They built on the student outcome statements originally developed by the Department of Education and Training and the Draft Progress Maps developed by the Catholic Education Office. All these documents relied heavily on research undertaken by the Australian Council for Educational Research (ACER) in the 1990s which had resulted in the production a series of assessment resource materials. Known as the Assessment Resource Kit (ARK) they covered the areas of Developmental Assessment, Portfolios, Performances, Projects and Paper and Pen. The authors, Geoff Masters and Margaret Forster, drew on their own research on assessment but also on research carried out worldwide including that of the Educational Testing Service, the American Guidance Service and the American Association for the Advancement in Science in the USA, the School Curriculum and Assessment Authority in the UK and work being undertaken at the time in various provinces of Canada and in Hong Kong (1996; 1997). At the very centre of the progress maps is the notion of ‘rubrics’. “Rubrics are generally defined as scoring guides used to assess students’ work ... they all have two unvarying elements: levels of performance factors and levels of quality” (Glass, 2004, p.17). Rubrics enable a student’s progress in learning to be plotted or graded according to their level of achievement using descriptors of their learning. They enable the progress towards an outcome to be mapped. They draw on the work of Jerome Bruner’s Levels of Achievement first espoused in The Process of Education (1962) and Benjamin Bloom’s, Taxonomy of Educational Objectives (1956).

Assessment then, was a critical part of the Curriculum Framework from the beginning, not as an add on as it had so often been in the past, but as an integral part of the teaching and learning cycle as well as being vital to providing accountability for teachers (and students) to show that students made progress in their learning as a result of being in school. However, as has already been noted, over time the emphasis on learning has been increasingly overshadowed by this latter strand of outcomes vis. accountability.

Conclusions

As outlined above, there were stresses and tensions right from the start of the attempts to implement outcomes based education in WA – and nationally. Despite the assertion of critics to the contrary, as this brief review has demonstrated, there was (and is) research into learning, teaching and assessment which underpins the very foundations of OBE. The fact that schools have been organised in year levels and subject areas for over 100 years does not in itself suggest that they should continue to be so. Nor, of course, does it suggest in itself, that they should be changed. However to claim as so many critics do that OBE is only ‘ideologically driven’ or that it only a ‘passing fad’ dismisses attempts that have been going on for more than a century to better understand how people learn and what can be done to assist them to do so. To cynically dismiss all changes by school systems to incorporate this knowledge is short sighted at best and a serious disservice to our children at worst.

There is no doubt that the agenda of the WA Curriculum Framework was school reform. This was equally true of its predecessor, the national Statements and Profiles, as it was in the USA, and as it is in the many countries around the world such as South Africa, Singapore and Malaysia which are now exploring OBE as a way to bring their school systems into the 21st Century. It fundamentally challenges teachers to re-examine what they do as teachers and the way they do it. For those teachers who embrace it, it is liberating. It affirms what many teachers have previously struggled to do individually in the privacy of their classrooms, often against the prescriptions of school systems. It says that teaching is complex, intellectually challenging and not for the fainthearted. It says that all students are capable of learning and worthy of teachers’ support. As Kennedy pointed out in 1995 “one thing is certain: we no longer think about curriculum provision as we once did. It is now more complex, more politicised, more contested and more public” (p.170).

Disclaimer

This paper has been neither authorised nor endorsed by the Curriculum Council of WA.

References


Outcomes based education: Where has it come from?

Alderson & Martin


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Between them, Dr Anna Alderson and Dr Marie Martin have worked as teachers, administrators, lecturers, researchers and now as consultants in a wide range of government and non-government schools, government and non-government education systems and community organisations, and in universities, in Australia, the UK and the USA. They are now partners in Learning Conversations Pty Ltd.