

D I S C U S S I O N P A P E R

# Common and Different Features of Council and Board Approaches to Assessment and Reporting

Prepared for the Queensland School Curriculum Council by

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QUEENSLAND  
SCHOOL  
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COUNCIL

## **Discussion Papers on Assessment and Reporting**

Discussion Paper Number 1

*Common and Different Features of Council and Board Approaches to Assessment and Reporting* by Graham Maxwell, October 2001

Discussion Paper Number 2

*Teacher Observation in Student Assessment* by Graham Maxwell, October 2001

ISBN 0 7345 2319 X

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## PREFACE

This discussion paper is the first of a series being published and disseminated by the Office of the Queensland School Curriculum Council in order to encourage discussion on various issues concerning assessment and reporting. The paper responds to questions that have been directed to the Council concerning the way in which teachers of Years 8 to 10 might approach the implementation of assessment in Council syllabuses in the light of perceived differences in assessment encouraged by the Board of Senior Secondary School Studies for Years 11 to 12. Rather than offer a definitive statement on assessment practice, which would not be within the province of the Council to provide, the discussion paper provides an analysis of the relationships between the two assessment approaches and suggests a range of issues that need further discussion. The intention is to open debate, not to settle it.

The Office of the Council took the initiative in commissioning this paper since the question it addresses relates directly to how Council syllabuses might be implemented. This is clearly a matter of interest to everyone concerned with Council syllabuses. A consideration of common and different features of Council and Board approaches to assessment and reporting does not indicate conflict between the two approaches. Nor does it imply that one approach is correct and one is wrong. As argued in this discussion paper, both approaches can be treated as legitimate and justifiable. The procedures of assessment promoted by the Board in Years 11 to 12 have a long and respected history and are not under any serious challenge. The Board is seen by many as being in the forefront of assessment reform around the world. The procedures of assessment embedded within Council syllabuses are of more recent origin but are consistent with principles of 'outcome-based education' being adopted in other Australian states and territories and other countries. It is therefore timely to consider precisely how the 'learning outcomes framework' approach of Council syllabuses and the 'criteria and standards referenced' approach of Board syllabuses really do differ in their underlying conceptualisation and their practical implications.

This discussion paper is not an official policy statement of the Council. Rather, it represents the views of the author, Dr Graham Maxwell, of the School of Education, The University of Queensland. As such, it offers a personal perspective on the issues. Dr Maxwell has a long and extensive association with the Board and its approach to assessment and moderation, especially as a continuing member of the Moderation Committee and chair of the Technical Advisory Committee for more than a decade. He has been involved in research and consultation on assessment for many years in Australia, USA and UK, ranging over all sectors and levels of education. He has taught courses and conducted workshops on assessment for pre-service and in-service teachers for 30 years. He has also been involved in recent Council deliberations on assessment and reporting. He is well qualified and well placed to undertake the analysis presented in this discussion paper.

The audience for this discussion paper is professional educators, especially schoolteachers and administrators who must deal with assessment and reporting practice in classrooms and schools. Such people already know a great deal about assessment and reporting theories and practices and this discussion paper builds on that knowledge. The hope is that the discussion paper will serve as a basis for professional debate, development workshops and collaborative planning.

This discussion paper makes a strong case for the underlying similarity of the two approaches to assessment and reporting. It also makes a strong case for considering the differences as arising primarily from the different imperatives of compulsory and post-compulsory schooling rather than the existence of separate statutory authorities per se. This proposition warrants further debate. The discussion paper argues that the differences need to be set against the underlying similarities. This is not to underestimate the importance of the differences. The differences need to be recognised as real and to be respected as appropriate for their context. The language adopted by each approach has been adopted deliberately to ensure that these differences are clearly recognised. The differences, however, would not seem so great that practical resolution is unmanageable. The discussion paper provides substantial support for believing that the differences should be recognised and simply allowed to coexist. Schools should be able to work out their own ways of managing this.

The Office of the Council would be pleased to have your reactions to and comments on the discussion paper, as well as any examples of ways in which the discussion paper may have helped to clarify or resolve any theoretical or practical problems you are facing in the implementation of Council syllabuses. These reactions, comments and examples would assist the Office of the Council in deciding what further assistance it might be able to provide on these issues.

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October 2001

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## INTRODUCTION

This discussion paper is an initial response to concerns expressed by teachers and others that the assessment and reporting approaches endorsed or encouraged by the Queensland School Curriculum Council (QSCC or 'the Council') and the Queensland Board of Senior Secondary School Studies (QBSSSS or 'the Board') appear to have different implications for assessment and reporting practice in schools. Any such differences are likely to be felt most keenly by teachers and school authorities in Years 8 to 10, that is, in the lower secondary school. The Council develops syllabuses for Years 1 to 10 whereas the Board develops syllabuses for Years 11 to 12. In designing their assessment and reporting policies and practices, secondary schools therefore need to reconcile any perceived differences between the assessment and reporting approaches that might be appropriate in implementing Council syllabuses for Years 8 to 10 and implementing Board syllabuses for Years 11 to 12.

Differences between assessment and reporting in the compulsory years of schooling (Years 1 to 10) and the post-compulsory years of schooling (Years 11 to 12) are the rule rather than the exception all around the world. These differences are not usually considered troublesome or problematic. They derive from the consequences of assessment and reporting at the end of secondary schooling for the pathways that students can take on leaving school, especially for entrance to higher education. The selective function of such assessments means that much greater attention must be given to external accountability and quality control than at earlier levels of schooling. In this sense, perceived differences in Queensland do not derive primarily from the existence of two authorities (Council and Board) but from the differences in function and purposes of different stages of schooling. Similar differences exist elsewhere in Australia, even where a single board is responsible for Years 1 to 12.

Typically, the pressures towards external accountability and quality control at the end of secondary schooling mean that some form of externally verified certificate is issued. In other states and territories in Australia, external examinations serve as the principal basis for this certification. In Queensland, a unique and valued feature of certification at the end of secondary schooling is the use of a system of moderated continuous school-based assessments linked to explicit statements of criteria and standards for reported levels of achievement.

The absence of external examinations in Queensland means that teachers in Years 11 to 12 are intimately involved in assessment for certification in a way that is absent elsewhere. As a result, secondary school teachers engage in a great deal of discourse about school-based assessment and their practice is under continual review and improvement. Secondary school teachers therefore approach any discussion of school-based assessment from a position of knowledge, expertise and responsibility.

The Queensland system for Years 11 to 12 has evolved to a point of considerable sophistication over the past 30 years, since the abolition of external examinations in Queensland in 1972, and can be expected to evolve further in the future. Council syllabuses have a more recent history, having been in development for only the past five years and not yet fully implemented in schools. There also is no current or planned external certification or accountability associated with these syllabuses. Unlike the Board, the Council has no authority for assessment, moderation and certification. The Council has now approved a

statement of its *Position and Guidelines on Assessment and Reporting* but this statement offers recommendations and suggestions, not requirements and imperatives. It is at present unclear precisely how schools will undertake assessment and reporting in their implementation of Council syllabuses. There is likely to be considerable variability of policy and practice in schools. This variability is to be celebrated since it allows excellent practice to develop and spread by professional engagement and acceptance rather than by fiat.

Queensland syllabuses for Years 1 to 10 are being developed, as in other states and territories, within the general philosophy of outcome-based education and in response to discussions and agreements among the states and territories about structures for framing syllabuses and reporting outcomes. These responses include the adoption of key learning areas, levels, strands and learning outcomes. Outcome-based education approaches are in development elsewhere in the world as well. However, the changes associated with implementing outcome-based education challenge much existing practice in assessment and reporting and may take some time to be fully realised. This should be considered a normal expectation for any education reform.

This discussion paper offers a conceptual comparison of the approaches to assessment and reporting encouraged by the Council and the Board. It has been written with the aim of encouraging and focusing debate on the issues. It does not offer practical guidelines for assessment in Years 8 to 10. That would be premature and inappropriate. It would be premature because it is necessary first to be clear about the features of each framework, how they overlap and where they differ. It would be inappropriate because assessment policy and practice for Years 1 to 10 is the responsibility of the schools themselves, not the Council. Instead, this discussion paper provides a mapping of the territory, identifying the major landmarks to assist further exploration. It is hoped that it will clarify the key concepts and issues and provide a framework for further discussion and development of principles and procedures. Being clear in our thinking is an important precursor for successful practice.

The most important message of this discussion paper is that the two approaches have much in common. In fact, the common features are more substantial and more fundamental than the different features. The tendency to emphasise differences results from standing too close to them, narrowing the field of vision to just these two systems. As with paintings, a more meaningful perspective can be gained by standing further away. When compared with other assessment and reporting systems, in other times and places, the similarities are more obvious. The corollary is that the differences are less substantial when viewed against the background commonalities. They can be seen as alternative elaborations of an approach to assessment and reporting that privileges teacher judgment based on evidence of student learning gathered on a continuous basis through school-based activities.

This is not to say that the differences are irrelevant or unimportant. Differences between the two systems need to be understood and respected. However, the differences are better seen as opportunities and challenges than as problems and barriers. We should affirm the common features of both systems and accept the opportunities and challenges presented by the differences. The differences can be successfully reconciled or managed. The fact that some schools have already done so indicates this. In the longer term, the differences offer possibilities for further growth and elaboration of both systems, each challenging the other to rethinking and redevelopment. Ultimately, we can hope that each system will enrich the other.



## RATIONALE

An examination of the common and different features of assessment and reporting in Council and Board syllabuses is desirable for several reasons. First, we should be clear about whether any differences are real or imaginary, substantial or superficial, theoretically distinctive or merely idiosyncratic. Second, we should be able to explain publicly how and why any differences exist. Third, teachers need a conceptual framework within which they can interpret any differences (to inform their own practice). Fourth, secondary schools need a basis for managing both systems coherently within the school. Fifth, parents need to know how and why the assessment and reporting approaches differ.

In comparing Council and Board approaches to assessment and reporting,<sup>1</sup> we must look beyond surface features to underlying assumptions and intentions, placing both within the context of the full range of assessment and reporting practices around the world. It is important not to underemphasise any differences that may exist. Neither should those differences be overemphasised. Whether two different concepts or practices appear similar or different often depends on the background against which they are cast, for example, whether local or global. Of particular significance is that both Council and Board syllabuses place teacher judgment at the heart of the assessment process, in contrast to assessment systems that privilege external examinations and standardised tests.

This paper argues that there are substantial common features as well as different features between Council and Board approaches to assessment and reporting. It is important to emphasise the common features and to realise how substantial they are. This is not to underrate the significance of the different features since they could be a cause of practical concern for schools and teachers. However, placing all of these issues in context allows us to consider whether the differences are as great as initially thought and how the differences might be reconciled. In fact, many of these differences can be interpreted within the wider context as a matter of degree or emphasis rather than completely different and irreconcilable.

Even so, a fundamental difference between assessment and reporting in Years 1 to 10 and Years 11 to 12 is the ‘high stakes’ nature of assessment and reporting in Years 11 to 12 and the certification (verification and authorisation) of assessments by the Board on the Senior Certificate.<sup>2</sup> Even if the Council acquired assessment and certification responsibilities, or an end-of-schooling certificate took into consideration evidence collected earlier than Years 11 to 12, the critical years are likely to remain the post-compulsory years of schooling leading up to critical life decisions.

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<sup>1</sup> Board approaches to assessment can be identified within Board syllabuses and other Board documents, particularly those relating to moderation for Board subjects. Council approaches to assessment can be identified within Council syllabuses and the Council’s *Position and Guidelines on Assessment and Reporting in Years 1 to 10*.

<sup>2</sup> ‘High-stakes assessment’ is a technical term referring to the existence of serious and irretrievable consequences for the student, the school or the school system resulting from the assessment. In the context of this discussion paper, it refers to consequences for the student in terms of access to different tertiary pathways and jobs. The Senior Certificate is a permanent and official record of the student’s achievement in secondary schooling and can have far-reaching consequences for their future.

The framework of common and different features in assessment and reporting presented here resulted from an analysis of Council and Board syllabuses and other documents. However, these common and different features are not self-evident; they represent an interpretation. Some aspects of the framework and the accompanying discussion may be contested. That is to be expected. However, the framework provides a reasonable and useful foundation for further debate and it is hoped that the debate will move forward to practical implications rather than bog down in interpretive wrangles.

The number of categories under which to represent common and different features of Council and Board approaches to assessment and reporting is somewhat arbitrary. Categories can be subdivided into further categories or recombined into fewer categories using different principles for categorisation, focusing on greater detail versus using broader organising principles. Here, the choice of ten categories for common features and ten for different features arose out of an initial desire for a balanced approach. Perhaps this is rather artificial. Before this paper was written, it was unclear whether common features or different features could be considered more substantial. As it is clear now that the common features predominate, it would probably have been better to consolidate the different features into a smaller number of categories. There is a clear way to collapse the number of different features under the concept of certification in the post-compulsory years of schooling versus no certification in the compulsory years of schooling. However, this has been left for future development and the paper has been kept in its original form.

An assumption of this discussion paper is that the reader is at least somewhat familiar with the assessment and reporting approach of the Council and the Board. This paper does not contain a complete description of each approach. For a complete understanding of each approach, it is necessary to consult the syllabuses and other documents of the Council and the Board. However, sufficient detail is provided in the discussion to allow anyone unfamiliar with these approaches to follow the argument. In fact, the discussion offers an analysis and interpretation of the two approaches, not a simple account. The discussion therefore points towards issues worth future exploration rather than straightforward implications for educational practice.

In other words, the approach taken in this discussion paper is analytical and exploratory, directed at revealing the underlying issues rather than solving the practical problems. The intention is to clarify these issues and provide a structure to support further discussion. Sound practice needs a sound theoretical foundation. Otherwise, we simply stumble around in the dark, taking short-term steps without any perception of where we are heading.

## **SUMMARY OF COMMON AND DIFFERENT FEATURES**

### **Common features**

1. Central role for assessment (both formative and summative)
2. 'Standards-referenced' assessment (versus 'peer-referenced')
3. Reporting against 'levels' (attainment/achievement)
4. School-based assessment (versus external tests/examinations)
5. Continuous assessment (ongoing, multiple opportunities, several modes)
6. Teacher judgments (interpretations) based on evidence of performance
7. Use of student folios for keeping record of evidence and judgments
8. On-balance judgments (synthesising profile of evidence)
9. Feedback directed towards advancement of learning (towards targets)
10. Principles of equity

### **Different features**

1. Different time frames (10 years versus 2 years)
2. Levels as stepping stones versus levels as quality arbitrators
3. Different structuring principles for assessing learning outcomes/achievements
4. All levels stated positively versus some stated negatively
5. Expectations of 'similarity' versus 'differentiation'
6. Strong versus weak expectations of reaching highest level
7. Reporting of 'how far' versus 'how well'
8. Different emphases on reporting profile versus global level
9. 'Soft' versus 'hard' accountability (moderation/certification)
10. Extensive versus limited use of informal assessment

## COMMON FEATURES

### 1. Central role for assessment (both formative and summative purposes)

Council and Board syllabuses both assign a key role in teaching and learning to assessment. In educational thinking, assessment is increasingly recognised as the linchpin of the teaching and learning process. Assessment is not something additional and antithetical to the teaching and learning process but something integral to and supportive of that process.

Both Council and Board syllabuses assume that education is an intentional process for bringing about student learning. The syllabuses, therefore, identify the characteristics of that desired learning. Assessment is that part of the educational process that identifies what learning has occurred, pointing to the milestones that have been reached and providing the foundation for deliberate planning of further learning. It follows that what is not assessed is unlikely to be part of this process of deliberate review and planning. Integration of assessment with curriculum and pedagogy is increasingly recognised as the key to improving learning (Black & Wiliam 1998; Shepard 2000) and a subject of ongoing research and development (Pellegrino, Chudowsky & Glaser 2001).

Council syllabuses are characterised by intended learning outcomes. Intended learning outcomes function as goals for the teaching and learning process and also provide the framework for assessing and reporting student progress. Assessment provides the agency for gauging student progress and for planning further learning experiences. Without assessment it is impossible to tell whether progress towards the intended learning outcomes is occurring and how best to direct further learning. Thus, assessment lies at the heart of the learning process advocated in Council syllabuses. In the sense that they foreground the desired learning outcomes, Council syllabuses are implicit assessment frameworks. An appropriate implementation of Council syllabuses necessarily involves appropriate implementation of assessment.

Board syllabuses also focus on intended learning outcomes, in this case expressed in terms of five performance standards (Levels of Achievement). These five performance standards represent graduated learning targets, a ladder of increasing complexity or quality of performance. The aim is to help students climb the ladder as far as possible. What is reported on the Senior Certificate (on exit from Year 12) is where the student 'got to' on this ladder at the point of exit or completion. As with Council syllabuses, the emphasis in senior assessment is on what students have demonstrated that they know and can do — actual performance, not a generalised 'ability' or 'potential'.

There are two senses in which assessment is central to Board syllabuses. First, school-based assessments provide the basis for reporting student achievement on the Senior Certificate. Second, these assessments are expected to serve formative purposes as well as summative purposes; that is, they provide feedback and set new targets for students in their learning during the course as well as contribute to reporting on exit. The exit judgment concerning the Level of Achievement reached involves interpretation of a profile of evidence collected over a two-year period with an emphasis on the 'fullest and latest' evidence — the essential aspects of the subject and the most recent demonstrations of achievement on those aspects. There are similarities here with assessment in Council syllabuses but these will be taken up

later. In summary, Board and Council syllabuses both accord a central role to assessment for both formative and summative purposes.

## 2. 'Standards-referenced' assessment (versus 'peer-referenced')

In the international literature on assessment, there are three basic ways to give interpretive meaning to any performance: norm-referenced; criterion-referenced; and self-referenced. Although these terms are almost universally used, they are somewhat ambiguous and confusing. They are better characterised respectively as peer-referenced, standards-referenced and self-referenced. These terms emphasise three possibilities: comparison with the performance of other people; comparison with some fixed expectation or 'standard'; and comparison with one's own previous performances. These three classifications exhaust the possibilities of distinct types. Particular instances of assessment can be characterised by one of these categories or some combination of them. While there may be good reasons for wanting to draw finer (secondary) distinctions between particular assessment approaches, their closest relatives will be found within one or more of these three primary categories.<sup>3</sup>

*Peer referencing* involves a competition in which the only thing that matters is how students perform relative to each other, not how well they perform in any absolute sense. The most obvious example is ranking, for example, place in class. Sometimes the ordering might involve fewer places than people so that there are many ties, forming 'bands', for example, Overall Positions (OPs) or Tertiary Entrance Ranks (TERs). Other examples include measurement scales that deliberately show a spread of scores, indicating different placements along a quantitative continuum — students differing in the amount of some characteristic or attribute. Tasks are chosen that reveal differences among people. Characteristics or attributes on which people do not differ are rejected as uninteresting and unusable, so too are tasks that people perform identically or very similarly. Measurements of this kind can be rescaled through a linear transformation without changing their essential meaning since most of that meaning is in the rank order. In Queensland, Subject Achievement Indicators (SAIs) have this characteristic.<sup>4</sup>

The common use of the term *norm-referenced* rather than *peer-referenced* emphasises that comparison of each performance is usually made with the average performance (or norm) of the reference group. Peer referencing is based on a philosophical assumption that people will differ on performance characteristics or attributes of any real interest and on a pragmatic assumption that assessment information will be used for social differentiation (selection). It is also sometimes argued that the competitive aspect of peer referencing encourages development of higher quality learning as students (and their teachers) strive to outdo each other. The difficulty with this approach is that there are 'losers' as well as 'winners'.

*Standards referencing* involves comparison of student performance with a predefined performance standard (an 'absolute' versus a 'relative' approach). Students are judged to have met the standard or not. The standard can be represented by a description of its

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<sup>3</sup> Sometimes assessment information allows all three forms of referencing, and it is a matter of choice which one is highlighted.

<sup>4</sup> SAIs are the basic input to the Board's calculation of OPs. They represent the 'order' and 'gaps' in students' relative achievement in a subject in a school.

characteristics (a ‘descriptor’) and/or by an example of it (an ‘exemplar’). In both cases the representation is ‘typifying’. Any particular student performance may differ in detail from the descriptor or the exemplar but still be judged to be ‘equivalent’ in standard (by substitution of alternative characteristics or by a different trade-off among the characteristics). Sometimes several standards are specified, as a set of ordered categories, to represent different levels of development, complexity or quality. In such cases, it is feasible to use only a small number of categories, typically between three and seven.<sup>5</sup>

Reference is often made to criterion-referenced assessment rather than standards-referenced assessment. This can be confusing since the term *criterion* can have various meanings. The term *criterion-referenced measurement* was originally used by Glaser (1963) to refer to deliberate pass-fail decisions on a numerical scale where the ‘criterion’ was the cut-score for a pass (or mastery). It seems more appropriate now to refer to this as a special case of standards-referenced assessment where the ‘standard’ is operationalised by the cut-score. Typically, the determination of cut-scores involves human judgment, often through pooling the judgment of several people. The basis for such judgments can be intuitive rather than explicit. More recently, there has been increasing support for making such standards explicit through description or exemplification. ‘Benchmarks’ are an example of this.

In some cases, ‘ordered’ or ‘graded’ standards are preferred — several standards rather than just one.<sup>6</sup> There are two traditions. The ‘measurement’ tradition, to which Glaser’s cut-score approach belongs, assumes that the performance dimension is continuous — infinitely divisible — and that ‘grades’ represent arbitrary divisions (or ‘bands’) along an underlying scale. The newer ‘assessment’ tradition assumes that ordered standards are categorical rather than continuous.<sup>7</sup> Educational practice seems to be moving from a ‘measurement’ orientation towards an ‘assessment’ orientation (Hager & Butler 1996; Gipps 1994; Shepard 2000; Wiggins 1993, 1998), from a numerical scaling culture to a categorical judgment culture. A measurement (numerical scaling) approach to standards-referenced assessment, although still often used (even in implementing Board syllabuses), is not now as centrally placed as it once was.

Sadler (1985, 1987) developed a theoretical framework for standards-referenced assessment, and this has been applied to Board syllabuses. He drew an important distinction between ‘criteria’ (characteristics, attributes or dimensions) and ‘standards’ (benchmarks of quality). The five Levels of Achievement for a subject are defined by means of a matrix of criteria and standards. Each student is awarded a Level of Achievement through teacher judgments of the match between the evidence of the student’s achievement and the standard for that Level of Achievement. The award of a particular Level of Achievement depends on the performance of the student in relation to the standard, not on the performance of other students. In this sense, the Board approach to assessment and reporting is a ‘standards-referenced’ approach

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<sup>5</sup> Sometimes, finer (secondary) distinctions are made within broader (primary) categories in a two-stage judgment process: first the primary distinctions, then the secondary distinctions. This can extend the total number of categories without extending the number of primary categories unreasonably.

<sup>6</sup> In Vocational Education and Training, each competency involves a single ‘competency standard’.

<sup>7</sup> Ordered standards of this kind are analogous to quantum states in physics.

(though, because of the explicit involvement of ‘criteria’, it is usually referred to as ‘criteria and standards referenced’ assessment).<sup>8</sup>

The claim that Council syllabuses also espouse a standards-referenced approach to assessment is somewhat controversial. The terms *standards* and *standards-referenced* have been avoided in discussions of assessment relating to Council syllabuses. This stems from the desire to make a clear demarcation between Council and Board approaches to assessment, that is, to make sure that the differences are clearly identified. However, there is a generic and internationally accepted meaning for the term *standards-referenced assessment*. When compared to other forms of ‘referencing’ (other methods of framing and interpreting evidence of student learning), both Council and Board approaches to assessment can be seen to stand quite close together and to be contrasted with alternative approaches. The differences are important but so too are the similarities.

Careful use of terminology is certainly important for generating understandings of their meaning. However, the existence in the international arena of a generic meaning for ‘standards-referenced assessment’ in reference to defined learning expectations makes it difficult to prevent its use. In any case, its use may help to clarify and strengthen the underlying similarities of this aspect of Council and Board syllabuses.

A further issue is that other states and territories already use the terms *standards* and *standards referencing* in relation to assessment based on outcome statements.<sup>9</sup> This makes it difficult to avoid reference to ‘outcomes as standards for assessment of achievement’ in the discourse on education anywhere in Australia. Although differences are emerging in the enactment of syllabuses in different states, the readiness of access to the educational thinking and materials of other states makes it difficult to sustain idiosyncratic differences of terminology. At the very least, differences of terminology require explanation to prevent confusion.

The NSW Board of Studies has adopted the term *standards-referenced assessment* to mean specifically ‘using outcomes as key reference points for decisions about progress and achievement’.<sup>10</sup> This, unfortunately, appropriates a generic term (standards-referenced assessment) to a particular use (outcomes-based assessment). It is preferable to make a distinction between the general concept of *standards-referenced assessment* and particular instantiations of it. Instantiations may differ on other important characteristics while still representing the general classification. Even so, the NSW Board of Studies accepts that

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<sup>8</sup> It can be argued that Board assessment is not purely standards referenced. There are two ways in which Board syllabuses can be considered as having a peer-referencing underlay despite their overt espousal of standards referencing. First, a statewide distribution across the five Levels of Achievement is expected (and realised); standards are deliberately pitched at levels that are consistent with the expected range of student performance. Second, the process of ranking (and gapping) of student achievement for Subject Achievement Indicators (SAIs) assumes that teachers can make fine discriminations among student performances within (and across) levels of achievement.

<sup>9</sup> For example, the Victorian Board of Studies refers to outcomes as ‘standards’ and ‘standards for assessment of student achievement’. See *Introducing the Curriculum and Standards Framework (CSFII)* <http://www.bos.vic.edu.au/csfi/overview.htm>

<sup>10</sup> This quote is from Board of Studies, NSW, *Standards-referenced assessment in primary schools* <http://www.boardofstudies.nsw.edu.au/k6/k6standards.assesshtml>.

outcomes act as standards and that assessment against those outcomes involves standards referencing.

Assessment in Council syllabuses is clearly standards-referenced in the generic sense. Core learning outcomes and level statements (which summarise the level core learning outcomes) are arranged in a sequence of developmental stages that function as ‘standards’.<sup>11</sup> Student performance is compared directly with the learning outcomes. It is specifically advised that student performance should not be judged in relation to other students but in terms of learning outcomes. Also, we have the example of these kinds of assessments being referred to as ‘standards-referenced assessments’ in other Australian states.

A further point of comparison is with competency-based assessment in the Vocational Education and Training (VET) sector. Competency-based assessment is another form of standards-referenced assessment. Assessment in Council syllabuses is very similar to competency-based assessment. Each competency is defined by a single standard (competence) and only the competencies that have been demonstrated are reported. Competencies are like core learning outcomes: all competencies must be demonstrated to complete a particular award (analogous to a level statement), assessment must involve a variety of contexts and occasions, student learning is supported until each competency is demonstrated irrespective of how long it takes, and certificates of attainment report only those competencies that the student has demonstrated.

*Self-referenced assessment* involves a focus on ‘personal best’ without concern for how other people are performing or what standards might be expected. The performance characteristics can be special and idiosyncratic, though often the same information can be interpreted in peer-referenced or standards-referenced ways. Council syllabuses have the potential for self-referenced interpretations of progress along with the standards-referenced ones, thereby encouraging a ‘personal best’ approach to progress rather than a ‘comparison with other students’ approach. Board syllabuses do not lend themselves so readily to self-referenced interpretations of progress since the Levels of Achievement do not represent a developmental sequence; in this case, self-referencing requires a descriptive interpretation of a student’s portfolio of work — an interpretation of their performance in terms of changes in learning (which then matches the Council approach).

### **3. Reporting against ‘levels’ (attainment/achievement)**

The six ‘levels’ (plus Foundation and Beyond Level 6) of Council syllabuses provide the framework within which learning outcomes are organised. These levels derive from the national Statements and Profiles of the early 1990s in which the profiles were seen as providing ‘a series of descriptive statements and indicators, arranged in progressive levels of

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<sup>11</sup> Whether Council syllabus learning outcomes are well stated to serve as standards is another issue that is not discussed here. However, it should be noted that all statements of standards are ‘fragile’, requiring their meaning to be clarified within the community of users. That is, while written statements of standards can be sharpened to convey their meaning more precisely, common interpretation still requires some process of ‘moderation’ involving teachers discussing examples of student performance.



achievement, to be used subsequently as a means of reporting on student progress and achievements' (Eltis 1996, p. 8).

It is significant that other states continue to refer to these 'levels' as 'levels of achievement'. The Council has avoided the use of this term because of its special meaning as Levels of Achievement in Board assessments. This appears to be a situation where an alternative term is needed for Council syllabuses. The preference so far has been to refer to the levels simply as 'levels'. However, this is intuitively inadequate since most people want to know what kind of 'levels' they are. Some alternatives worth considering include *levels of attainment* ('attainment' being a synonym for 'achievement' and the preferred term in the UK, though here it might be confused with 'ascertainment' which refers to special needs), *levels of development* (though 'development' carries connotations of 'natural' rather than 'through effort'), and *levels of learning* (though this seems rather ambitious, implying 'wisdom').

The Board adopted the term 'Levels of Achievement' after the Review of School Based Assessment (20 years ago) to refer to the five ordered levels of quality of performance for reporting student achievement on the Senior Certificate. They could be referred to generically as 'grades', but the change from norm referencing to standards referencing called for new terminology to support new meanings. The capitalisation emphasises that the meaning is special rather than generic.

In Board syllabuses, exit standards are typically represented by a standards schema that identifies several criteria (or dimensions) and the associated five standards for each. Guidelines are included for synthesis of a student's profile across the criteria into an overall Level of Achievement for the subject. What is reported on the Senior Certificate is the overall Level of Achievement, although school reports typically include more detail, such as achievement on each of the criteria. In some subjects there has been a lingering use of numerical scaling and numerical cut-offs for standards. There has been a recent concerted effort to encourage the use of descriptors and exemplars of standards and more categorical judgments of achievement. A distinction needs to be made between what Board assessment is aiming towards or encouraging and how it is enacted within particular subjects and particular schools (as is likely also to be the case for Council syllabuses).

This brief description reveals that there are some clear differences between Council and Board approaches to assessment. What is common, however, includes the following:

- the levels form a sequence of increasing elaboration of learning, that is, increasing complexity or quality, not simply increasing quantity<sup>12</sup>
- the levels refer to what students demonstrate they know and can do

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<sup>12</sup> This is the theoretical situation. However, neither Council nor Board syllabuses are based on any coherent theory of increasing elaboration of learning, and this makes the designated levels appear somewhat arbitrary. In both cases, some syllabuses are open to interpretation as merely demanding 'more' knowledge for later or higher levels. Of course, in one sense increasing complexity or increasing quality does represent 'more' of something. The increments ought preferably to involve additional characteristics, building an Aladdin's cave rather than a bank account. An alternative metaphor is the growing of a tree rather than the construction of a road. At later or higher levels there should be more knowledge; but it should also have branched and diversified, strengthened and thickened (become more interrelated and meaningful), and perhaps developed some interesting leaves, flowers and fruit (some of which might not be present at earlier or lower levels). Whether it is possible to develop categorical and elaborated stages of development, rather than simply benchmarks along a continuum, requires both theoretical and empirical investigation.

- what is reported is what students have accomplished — actual performance, not what students might accomplish if they were given the opportunity
- in this sense the focus in reporting is on what students have learned (up to that point in time), not what they might be able to learn in the future
- the focus of assessment is performance, not ‘ability’ or ‘potential’
- what is reported is a statement about the nature of the student’s performance — what the student has shown that he or she knows and can do.

#### **4. School-based assessment (versus external tests/examinations)**

Both Council and Board syllabuses are built on the assumption of school-based assessment as the basis for reporting student progress and achievement. Queensland is different in this respect from other states where external examinations play a significant and controlling role in senior secondary school assessment. In New South Wales, external tests also play a substantial role in reporting at the end of Year 10. In Queensland, the subsidiary role played by external tests (Years 3, 5, 7 testing and the Queensland Core Skills test) means that teachers have greater responsibility for assessment. The experience of the senior secondary school is that this responsibility is a strong force for professional development and curriculum renewal (Maxwell 1998).

#### **5. Continuous assessment (ongoing, multiple opportunities, several modes)**

Both Council and Board syllabuses espouse continuous assessment. There are two meanings and purposes for continuous assessment. First, it means that there is an ongoing process of assessment providing feedback to teachers and students about progress being made towards the desired learning outcomes. In the later stages of schooling, students are expected to take more responsibility for making use of this feedback to advance their learning and reach towards the desired learning outcomes. As well, at all stages of education teachers make use of continuous assessment as a basis for redirecting their teaching and planning the next steps in student learning. The ideal at all stages of education would be for this to be individually tailored. Whether this is possible and how best to manage it depend on the availability of time and resources.

Second, continuous assessment allows teachers to build a profile of student achievement over time. This allows reporting to be based on assessments that do not depend on a single occasion or a particular mode of assessment (such as a written examination). Assessments can be designed to reveal more authentic learning outcomes (Cumming & Maxwell 1999) and can be selectively updated as new evidence supersedes and replaces old evidence. Reporting can be based on an interpretation of the profile rather than a mechanical aggregation of its components. This allows for sensitivity to idiosyncratic aspects of the profile, such as how to interpret inconsistencies in performance or how to deal with missing information (as may arise from absences or illness). What is being reported is the point each student has reached in their learning at the time of reporting.

There are some differences of understanding about what is meant by *continuous assessment*. A distinction can be drawn between *continuous* (ongoing) and *continual* (recurrent or frequent). *Continuous assessment* does not mean ‘tests, essays and assignments every week or so’. Where the emphasis is on formative assessment or where the assessment is low-stakes, it can mean that a progressively changing profile of the student’s progress is built up over time from a variety of evidence, including informal observation (and in that sense it can be happening, mostly unobtrusively, all the time) as recommended by the Council. Where the emphasis is on formal high-stakes certification, it can mean *periodic assessment*. For example, Board assessment policy specifies the amount of assessment to be counted towards the certificated result — about eight pieces of work over two years. In both cases, however, the intention is that judgments of progress not depend on single-occasion assessment.

## 6. Teacher judgments based on evidence of performance

Both Council and Board syllabuses identify the teacher as the key person in the assessment process and place teacher judgment at the heart of that process. This central role for teachers and teacher judgment in the assessment decisions that matter most for monitoring and reporting student learning is not accepted everywhere in the world. In many places, including England, teachers are not trusted to be able to make such judgments. External tests and examinations are perceived in many places as a necessary means of quality control. The existence of school-based assessment in the senior secondary school in Queensland provides a strong foundation for valuing teacher judgments in the earlier years as well.

The abolition in Queensland 30 years ago of external examinations at the end of secondary schooling and their replacement with school-based assessment was a landmark decision that has not been repeated elsewhere in Australia. However, it has shown that it is possible to develop a successful system of ‘high-stakes’ assessment that depends on the professional judgments of teachers. While assessment in Council syllabuses is not ‘high-stakes, in the sense that it does not contribute directly to external decisions affecting a student’s future, public confidence in teachers’ assessment judgments will be important for public acceptance of Council syllabuses. In the junior secondary school, teachers’ widespread understanding and acceptance of the role of teacher judgment in assessment provide a good foundation for successful implementation in the new syllabuses of assessment processes that depend on teacher judgment.

In fact, ‘authentic assessment’, that is, assessment that values ‘authentic learning’ (Newmann & Archbald 1992; Wehlage, Newmann & Secada 1996) depends on the direct involvement of an assessor (the teacher) since the assessment tasks need to be ‘real’ (valued and purposeful) rather than ‘artificial’ (depersonalised and formalistic). There needs to be engagement with the individual needs and interests of the student. Also, such assessment tasks need to be complex (multifaceted) and holistic rather than simple (one-dimensional; right/wrong) and fractionated (small ‘exercises’ and choice-response questions). Good assessment tasks are indistinguishable from good learning tasks.<sup>13</sup> Whether the assessment tasks used in the

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<sup>13</sup> Wehlage et al. (1996) suggest that authentic pedagogy and assessment should involve construction of knowledge, disciplined inquiry, and value beyond school (the latter implying real-world problems and audiences).

implementation of Board and Council syllabuses currently have these characteristics, the opportunity for them to do so exists. The placement of the teacher at the heart of the assessment process allows assessment to become 'authentic' in the ways now recommended by leading-edge learning and assessment theory. The central role of teacher judgment in assessment in both Council and Board syllabuses should be valued as the basis on which to move towards more widespread implementation of authentic forms of assessment.

### **7. Use of student folios for keeping a record of evidence and judgments**

Assessment judgments in both Council and Board syllabuses need to be based on evidence of student performance. A record of that evidence and those judgments has to be kept for later reference. Student folios allow student work samples to be stored and used for a variety of purposes including reminders, illustrations and verifications of a student's achievement and progress. In cases where a record of the actual performance is not feasible, especially where there is no 'product' to keep, the detail needs to be provided by the teacher's 'record of judgment'.

In both Council and Board approaches to assessment, the evidence and judgments recorded in the student's folio are selectively updated from time to time. New evidence can supplement or reinforce previous evidence, thereby strengthening the judgments. Alternatively, new evidence may replace older evidence when there has been an advance in a student's learning. Selective updating needs to occur continuously if the record is to provide a useful basis for feedback to students on their progress and for planning further teaching and learning strategies.

### **8. On-balance judgments (synthesising profile of evidence)**

In both Council and Board assessment, teachers build a profile of student performance over time. Judgments based on single-occasion demonstrations of learning outcomes are discouraged. Assessment should be progressive (continuous), allowing earlier or atypical performances to be ignored in the light of later or more pervasive performances. Students have a variety of opportunities in a variety of modes and settings to demonstrate their progress in learning. The profile is selectively updated on the basis of new evidence of a student's learning.

In the case of the Board, the policy is that this selective updating emphasises 'fullest and latest' information. 'Fullest' refers to 'all essential elements' of the syllabus; 'latest' refers to the most recent evidence. The aim is to report a student's level of achievement on exit (at the point of formal reporting on the Senior Certificate) within a framework where some of the evidence was necessarily collected earlier than 'right at the end'. This means that the interpretation of the profile requires on-balance judgment, weighing up of the relevance and importance of various components of the profile. While some aspects of this process of profile synthesis have been codified into rules, such as trade-off rules, these do not obviate the need for teacher judgment on other aspects of synthesis of the profile. This is especially important where there are inconsistencies in a student's performance.

Judgments of progress in Council syllabuses are discouraged from being made at too high a level of synthesis, with reporting focusing on the core learning outcomes rather than on a level for a strand or key learning area. Reporting on the level statements or levels would involve some of the same consideration of ‘selective updating’ and ‘fullest and latest’ that apply in Board syllabuses (except that it is suggested there be no trade-offs; all core learning outcomes of a level must be demonstrated). Judgments of demonstration of the learning outcomes require on-balance considerations. Evidence has been collected at different times, in different modes, and in different settings so that decisions need to be made about the ways in which this evidence should be interpreted. Because there is always multiple evidence relating to any learning outcome, this evidence constitutes a profile with elements that must be selectively combined into an overall judgment.

### **9. Feedback directed towards advancement of learning (against targets)**

In both Council and Board syllabuses it is assumed that teaching is about the advancement of learning and that assessment will be used to provide feedback to both teacher and student to form the basis of planning for further learning. Targets for learning are set in terms of the ‘level’ standards and are made explicit to students to guide their learning. These standards are detailed and specific. Feedback is directed at defining the next steps needed to advance from one ‘level’ to the next. The aim is to advance all students as far as possible through the ‘levels’ (and beyond) in the time available.

### **10. Principles of equity**

Principles of equity infuse both Council and Board syllabuses. There is a strong commitment to assessment that reflects what each student does actually know and can actually do and is not affected by biases, whether intended or unintended.

## DIFFERENT FEATURES

### 1. Different time frames (10 years versus 2 years)

The implications of different time frames for Council and Board syllabuses are substantial. A ten-year time span allows more flexible approaches to development than does a two-year time span. There is more time over ten years to accommodate varying rates of development, varying levels of interest and engagement and varying kinds of learning difficulties. A two-year time span imposes constraints on the amount of progress that might be facilitated.

A more reasonable comparison would be between two-year blocks of time, especially Years 9 to 10 compared with Years 11 to 12. It is not likely that all students in Years 9 to 10 will be identical in their learning profiles, even if they all reach Level 6 on all core learning outcomes by the end of Year 10 (an aim yet to be tested in practice). It can be expected that many will have achieved various discretionary outcomes and/or reach 'Beyond Level 6'. Some will not reach Level 6, at least not on all core learning outcomes. A more reasonable comparison would be between reaching Level 6 on the core learning outcomes by the end of Year 10 and reaching a Sound Level of Achievement by the end of Year 12. Aside from the issue of different types of courses in Years 11 to 12 (Board, Board-registered, VET), which complicates comparisons, the percentage of students achieving Sound or better by the end of Year 12 is not much different from the percentage of students that can reasonably be expected to achieve all Level 6 learning outcomes by the end of Year 10.<sup>14</sup>

### 2. Levels as stepping stones versus levels as quality arbitrators

A key difference between Council and Board syllabuses concerns the characteristics of 'levels'. Council core learning outcomes form an explicit progression of learning targets at successive levels. There is an assumed progression from earlier levels to later levels. Students begin at the lowest level and progress to higher levels.<sup>15</sup> Progress at any point in time can be expressed in terms of the point reached on the sequence of levels. The nature of this progression is characterised as increasing complexity, a notion akin to increasing elaboration of cognitive schemata in some theories of cognition.

In Board syllabuses, while Levels of Achievement function as overall learning targets, they do not form a developmental sequence. Students do not start at the lowest level and progress to higher levels. Some students are recognised as demonstrating the characteristics of higher Levels of Achievement from the beginning of a course.<sup>16</sup> In some cases, especially for

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<sup>14</sup> The percentage of results at Sound or better across all Board subjects (combined and statewide) is consistently around 75 per cent.

<sup>15</sup> This ignores the fact that some students will begin school at higher levels than Level 1 since it can be assumed that at some previous point in their lives they would have been at Level 1.

<sup>16</sup> Although this might be considered analogous to the students who begin school higher than Level 1, there is a key difference. Such students would not be considered to have passed through the lower Levels of Achievement at some stage of development prior to beginning the course. Since the Levels of Achievement represent subject specific learning, it is not clear what the implications would be of attempting to represent them more developmentally. It might be easier to do so in some subjects than in others.

languages, the standards for levels of performance ('grades') are different at different stages of the course, that is, the standards are designed to be appropriate for that stage of the course. Levels of Achievement represent the benchmarks against which achievement is compared at the end of the course; they are exit levels. This difference is usually reinforced by the adoption of a different set of labels for 'grades', with appropriate descriptors and exemplars, for reporting performance on individual assessment tasks along the way.

The relationship between a student's performance on individual assessment tasks and their exit Level of Achievement is mediated through their profile of achievement on the various assessment tasks. The exit Level of Achievement represents a synthesis of this profile. The judgment of which of the five levels a student has reached is an on-balance judgment in which there may be trade-offs between any highs and lows on the profile.<sup>17</sup> This is different from assessment judgments in Council syllabuses where the main focus is on the profile of core learning outcomes. Insofar as schools choose to synthesise performance to report progress on the level statements or the levels, the Council recommends that students demonstrate all the core learning outcomes relevant to that level, that is, that the reporting not involve trade-offs across the learning outcomes (since the level statements and the levels derive their force from including all the relevant learning outcomes).

One issue that needs further analysis is whether Council and Board 'levels' are fundamentally different in the way they represent 'level-ness'. As previously mentioned, Council syllabuses emphasise the notion that successive levels involve increasing complexity, that is, greater elaboration of knowledge. It has been suggested that Board levels, in contrast, differentiate on grounds of quality. Perhaps, though, quality includes complexity; vice versa, perhaps complexity has (or ought to have) a qualitative dimension. Certainly, it would seem that in both Council and Board syllabuses, levels are not simply differentiated in terms of 'more' knowledge, that is, 'knowing more things' in a quantitative sense. Development of appreciations of quality would seem to be important for all stages of education. The relationship between complexity and quality needs further exploration.

### **3. Different structuring principles for assessing learning outcomes/achievements**

Council syllabuses are structured in terms of strands. Some also have sub-strands. All have 'sequences' of learning outcomes within strands or sub-strands.<sup>18</sup> However, the character of strands, sub-strands and sequences varies according to the key learning area (see attachment). Typically, 'strands' are content or concept categories; and typically, 'sequences' are process categories. However, a combination of each is the exception rather than the rule. On the one hand, in English and LOTE the strands and sub-strands both represent processes.<sup>19</sup> On the other hand, in Health and Physical Education, Mathematics, Science and Technology the strands and sub-strands both represent content or concepts. The Arts is special in having

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<sup>17</sup> In some cases the trade-off rules are specified in the syllabus.

<sup>18</sup> 'Sequences' is not an official term for these 'lines' of outcomes across levels. An alternative term, found in some syllabus documents, is 'continua'. Some syllabuses label the sequences; others do not.

<sup>19</sup> For English, strands and sub-strands represent different types of processes. For LOTE, within each language there is said to be only one strand — communication — so that the sub-strands represent the effective strands — comprehending and composing.

different ‘disciplines’ for strands and defined processes for sequences within each discipline. Studies of Society and Environment (SOSE) is special in its interweaving of concepts and processes, with concepts characterising both the strands and the sequences but a particular process also being identified with each sequence. The current situation with Council syllabuses is therefore: four cases of sequences defined by content/concepts; three cases of sequences defined by processes; and one hybrid case (SOSE) (though with sequences primarily defined by concepts and only secondarily by processes). Where sequences are defined by processes, these processes have been chosen to mesh with the processes used in associated Board syllabuses — in these cases creating an aspect of similarity rather than difference.

Despite the differences in characterisation of learning outcomes, Council syllabuses all place primary emphasis on the sequences of learning outcomes for assessment and reporting. Sequences in Council syllabuses are analogous to criteria in Board syllabuses (with quantum steps between outcomes/standards). However, there are important differences in the way these Council sequences and Board criteria function.

For purposes of exit assessment and reporting, assessment judgments for achievement in Board syllabuses require consideration of several ‘criteria’, represented as different kinds of knowing and doing (cognition and skill). As with Council syllabuses, there is no uniform approach to these structures in Board syllabuses. In most cases, ‘content knowledge’ (knowing and understanding) is one of the criteria and the other criteria are concerned with specific processes and skills relevant to the subject. The subject content may be structured in terms of subject matter ‘units’, ‘topics’, ‘themes’, ‘concepts’, ‘focuses’, ‘components’ or ‘areas’. This may seem to be akin to some Council syllabuses. However, these subject matter divisions form the background content of the assessment, not its organising principle. Rather, the primary focus of assessment is the criteria (and sub-criteria). Exit Levels of Achievement are defined by a matrix of criteria and standards — a standards schema or rubric. The determination of a student’s exit Level of Achievement involves a global judgment that synthesises all of the evidence presented in the exit folio concerning the student’s achievement. In some cases, this synthesis requires a holistic judgment of the whole body of evidence whereas in other cases it requires separate judgments of the exit standard for each of the criteria followed by the application of trade-off rules. Either way, what is reported (on the Senior Certificate) is a single overall Level of Achievement, not a profile of achievement on each of the criteria.

The following tables may help to clarify the analogy between ‘criteria’ and sequences.

#### **Board Subject (overall): Standards Schema**

Level of Acht.	VLA	LA	SA	HA	VHA
Criterion 1	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>
Criterion 2	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>
Criterion 3	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>	<i>Standard</i>

#### **Council KLA Strand or Sub-strand: Sequences of Learning Outcomes**

Level:	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Sequence 1	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>
Sequence 2	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>
Sequence 3	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>	<i>Outcome</i>



Another point needs to be made. As shown by Sadler (1986), criteria can be represented as a hierarchy in which each successive layer explains the criteria of the previous layer through the use of more detailed criteria (sub-criteria) — an ‘unpacking’ of meaning. Quality standards (in the form of a standards schema or rubric) for the criteria at one layer can be expressed in terms of criteria for the next (lower) layer. This produces the interesting paradox that, while there is a clear distinction being made between criteria and standards, nevertheless, standards are themselves best expressed in terms of more detailed criteria. Hence, it is appropriate to talk about expressing the criteria for a standard as well as the standards for the criteria. This interweaving of criteria and standards makes it reasonable to talk about ‘expressing the criteria for demonstration of a learning outcome’ (in Council syllabuses). Insofar as these ‘criteria’ apply to a particular learning outcome (a single cell in the table above) rather than represent a dimension running across the whole sequence, that is across all levels, it might be better to refer to them as ‘pointers’ or ‘indicators’.

#### **4. All levels stated positively versus some stated negatively**

Council core learning outcomes are all stated in terms of positive accomplishment, implying that all students can make positive progress and experience success. While it is yet to be tested whether demonstration of less than Level 6 by the end of Year 10 is perceived (by teachers, parents and students) as indicating success (to the level attained) or failure (through not attaining Level 6), the uncompromisingly positive language differs from typical practice in Years 11 to 12. With Board assessments, there is an implied level of failure for some students.

The strongest negative connotations are conveyed by the labels ‘Limited’ and ‘Very Limited’ for the two lowest Levels of Achievement. Although not originally intended, the connotation set up by these labels is that ‘Sound’ represents a pass and ‘Limited’ represents a failure. Even so, ‘Limited’ is meant to signal ‘some learning’. ‘Very Limited’ is a default standard since every enrolled student receives a result even when they provide no assessable work. So the expression of this standard in deficit terms, ‘less than limited’, is warranted.

Although the standards for ‘Limited’, ‘Sound’ and ‘High’ are typically written in syllabuses in positive terms, they are often interpreted in terms of deficits from the next level rather than in terms of positive advancement. ‘Very High’ is often seen as the ideal with other levels falling short. This can be seen in the language of some locally devised criteria sheets or rubrics. This is not inevitable, but concerted effort is needed to maintain a positive orientation to the discourse about all levels. Even then, the need to provide feedback that advises students how to bridge the gap to the next level inevitably focuses attention on what is ‘missing’.

#### **5. Expectations of ‘similarity’ versus ‘differentiation’**

The rhetoric of Council syllabuses is one of similarity. Core learning outcomes are considered as essential learning outcomes for all students, with students typically demonstrating Level 6 on the core learning outcomes by the end of Year 10. The reality of Board assessments is one of differentiation because of the selective function of assessment at this level.

It has already been suggested that reaching Level 6 might be compared with reaching a Sound Level of Achievement as the aim of all teaching. High and Very High levels of Achievement would then be compared with discretionary learning outcomes and Beyond Level 6.<sup>20</sup> What is clear is that there will be diversity among students (at all year levels), and that this diversity will need to be addressed, encouraged and recognised. It would be as inappropriate to be satisfied with limiting all students to the core learning outcomes of Level 6 in Year 10 as to a Sound Level of Achievement in Year 12. The question is how to strike a balance between attention to ‘core for everyone’ and ‘extension for some’. The question is also how to encourage all students to develop their knowledge, abilities and attributes as far and as extensively as possible while ensuring that all students develop a positive self-image, self-confidence and self-affirmation.

## 6. Strong versus weak expectations of reaching highest level

Although Board assessment is criterion-referenced in the sense that assessment judgments are made against predetermined standards, these standards span the anticipated range of standards that students across the State are likely to display. There is an expectation that quality of achievement will differ among students across the State in each subject, at least among the top three levels of achievement. If all students reached the highest level of achievement in a subject in any year, it would be concluded that the standards had been pitched too low and that the ‘best’ students had not been challenged and stretched sufficiently.<sup>21</sup>

The success of the Board’s development of a range of ‘reasonable’ expectations for student performance is attributable to its processes for developing the standards. Standards for Board syllabuses are redeveloped each time a syllabus is rewritten, usually every six years. In the development, trialling and evaluation of each syllabus, substantial attention is given to setting the standards for exit Levels of Achievement. These standards must be ‘realistic’, representing a set of expectations about the range of characteristics likely to be displayed by students (clearly, induced from previous student work but applied to future student work). In this sense, the standards represent a combination of what students *ought to be able to do* (desired learning outcomes) and *what they will be able to do* (anticipated learning outcomes).<sup>22</sup>

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<sup>20</sup> In fact the situation is more complex than this. Diversity is catered for in Years 11 to 12 through a variety of subjects with different intellectual demands. Some students (or their parents) choose subjects that may be too difficult for their current stage of development or in which they are not interested, and they find it difficult to reach a Sound Level of Achievement.

<sup>21</sup> The setting of the standard for these Levels of Achievement is a complex interaction of many factors, such as past standards in the subject, comparison with the standards set in other subjects, what appears appropriate for this kind of subject in Senior curriculum, general community perceptions and expectations, maintenance of national and international confidence in the quality of the Senior Certificate, what appears appropriate for the way the subject has been framed (its internal logic), and assumptions about its role in preparation for subsequent stages of education (such as current starting-points for university courses for which the subject might be a prerequisite or foundation).

<sup>22</sup> This process differs substantially from standard setting in other States for senior secondary school studies. Board standards are empirically validated as part of the syllabus development process. Standard setting is integral to this process, that is, ‘built-in’ rather than ‘bolt-on’.

As previously noted, the desire to set a range of standards that maintains a spread of achievement stems partly from the selective function of the Senior Certificate and the accompanying Tertiary Entrance Statement. It also derives from the recognition that different rates of individual learning and development naturally result in a range of levels of achievement at any point in time, such as the end of Year 12.

A consequence of setting such a range of standards is that the majority of students do not achieve the highest level. The highest level is reached by only ‘exceptional’ students even though this is the standard that represents the most desirable learning outcome. Although, theoretically, all students have a chance of reaching the highest level — because they are pitted directly against the standard, not against other students — in practice, many find that the developmental distance is too far to traverse, at least in the time available. In other words, the expectation of all students reaching the highest standard is a weak one. Most will not manage it, and the chances that particular students will do so can be gauged fairly accurately well before the end of the course. Most students will not achieve the complete set of learning objectives, and many will fall considerably short (which means that many will exit with substantially incomplete and erroneous learning).<sup>23</sup>

If the ‘highest standard’ for Council syllabuses is taken to be Level 6, then there is a strong expectation that most students will reach this level. However, as previously argued, maybe Level 6 should be thought of as analogous to a Sound Level of Achievement. In that case, Beyond Level 6 would be analogous to High and Very High Levels of Achievement. It is not clear how many students will be recognised as having extended their learning beyond Level 6. However, since assessment in Council syllabuses has the characteristics of a profile rather than a synthesis into an overall level, it might be expected that some aspects of most students’ learning might include elements from Beyond Level 6. In this sense there could be a strong expectation that most students extend some aspects of their learning to the ‘highest level’ (though not necessarily to the ‘very highest level’). A profile allows the variability in student achievement to be represented and recognised, whereas synthesis into a single reported level ‘averages out’ the ‘highs’ and the ‘lows’.<sup>24</sup>

## 7. Reporting on ‘how far’ versus ‘how well’

Council syllabus learning outcomes are arranged in a sequence of levels that is intended to indicate increasing complexity of knowledge and understanding. This can be thought of as a modern representation of the ‘spiral curriculum’, that is, a curriculum in which successive levels provide an elaboration of earlier knowledge and understanding by subsuming and extending them. Strands provide the connective links across levels. Reporting emphasises the level reached on each sequence of core learning outcomes. The metaphors associated with the

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<sup>23</sup> This may be considered a rather strong statement but some ‘incomplete and erroneous learning’ may occur at any Level of Achievement, not just at Limited and Very Limited Levels of Achievement, though clearly decreasing in scope at successively higher levels.

<sup>24</sup> If learning outcomes for High and Very High Levels of Achievement were represented and reported similarly to those in Council syllabuses, much of this difference would disappear. Much of the difference stems from the global nature of Levels of Achievement.

term 'levels' are those of a ladder to be climbed or a distance to be travelled. The question to be answered by assessment is 'how far has the student progressed (on each strand)?'<sup>25</sup>

The question to be answered by assessment in Board syllabuses is 'how well has the student done (the task)?' or, for reporting purposes, 'how well has the student done overall (against the syllabus standards)?' The Levels of Achievement represent standards of quality of performance in the subject as a whole. Criteria, seen as dimensions of student learning, provide the connective links across levels and also across different assessment occasions. Judgments against the standards on each criterion for any assessment task are interim judgments to be placed in the context of components of the profile and synthesised into a more global judgment (eventually into the judgment of the exit Level of Achievement). In this case, the metaphors associated with Levels of Achievement are those of qualitative comparison (poor/good/better/best) where there is competition for scarce 'rewards' or 'honours'. For most students in most subjects the two highest levels of achievement are unreachable. Even so, the discourse on standards is directed at establishing understandings of what constitutes high quality performance and what distinguishes the quality of one performance from that of another. That is, there is an emphasis on developing an appreciation of the distinctions between poor and excellent performance.<sup>26</sup>

Discourse on qualitative distinctions in performance is not an explicit component of assessment in Council syllabuses. Qualitative distinctions are not part of the framework of assessment. Reporting is categorical (yes/no) according to whether a learning outcome has been demonstrated or not. Gradations of quality in the demonstration of learning outcomes are implicitly discouraged. Since the emphasis is on reporting a profile of demonstrated learning outcomes rather than a global 'level', reporting associated with Council syllabuses does provide information on partial progress from one level to the next. This is consistent with the notion that progression involves increasing complexity of knowledge and understanding.

It is worth considering whether these positions have greater similarity than this comparison suggests and also whether it is appropriate to exclude assessment in terms of quality of performance from Council assessment frameworks. Increasing quality can be represented as increasing elaboration and complexity of knowledge, understanding and skill, involving multiple dimensions of learning and performance. From this point of view, both Council and Board 'levels' are concerned with increasing complexity. Also, discourse on quality of performance is necessary to encourage students to strive for self-improvement and excellence. If students are to be self-managing and self-directed, they need to know how they could do better, not just do more. Elimination of any discourse on quality may promote mediocrity since there is no basis for encouraging students to 'go beyond' the minimum required to demonstrate each learning outcome. This could represent an insidious 'dumbing down' of the curriculum by encouraging a 'near enough is good enough' mentality.

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<sup>25</sup> Whether the learning outcomes form a strict hierarchical sequence of increasing complexity for all students, or even for most students, is another question entirely and can only be answered empirically. Collins (1994) has been critical of this aspect of the sequencing of learning outcomes. Board officers also claim that universally applicable developmental sequences are difficult to sustain in practice.

<sup>26</sup> There is still widespread emphasis in a few subjects on quantitative differences between Levels of Achievement ('knowing more') rather than qualitative differences ('knowing better'), but the ideal of a criteria-and-standards-based system is qualitative differentiation.

## 8. Different emphases on reporting profile versus global level

The Council encourages schools to report student progress in terms of the core learning outcomes rather than the aggregated level statements and levels. What should be reported is, therefore, a profile of achievement, showing the level reached on each of the sequences of core learning outcomes. This is a very detailed statement. It places heavy demands on teacher decision making and recording. However, reporting is an internal matter for the school and can be tailored to school needs and circumstances. Also, the tracking of student progress is necessary for pedagogical reasons, not just for formal reporting to parents.

In contrast, the ultimate focus in Board syllabuses is a global level of achievement in each subject to be recorded on the Senior Certificate. Teachers keep a record of the profile of performance according to the assessment criteria (curriculum dimensions) in each subject; and schools may choose to use this more detailed information in their own reporting mechanisms, that is, a profile of performance on all criteria. Two levels of reporting can be identified: assessment feedback on each task or test; and official school reports (typically each semester). For assessment feedback on each task or test, it is increasingly common practice to provide detailed information by means of a criteria sheet (standards rubric). For official school reports, it is likely that parents will be provided with explanations of the criteria (dimensions) for each subject but not (yet) common for statements of the standards to be provided, leaving the meaning of the student's level of performance on each criterion unclear. It may be, of course, that such meanings are more effectively conveyed through teacher/student and teacher/parent discussion (provided that a clear and explicit statement of the standards does exist to serve as a reference point).

Two points should be noted here. First, official external reports such as the Senior Certificate usually include less detail (greater summarisation) on student achievement than internal school-level reports; for school-based assessments on official external reports, there is a trade-off between providing detail and verifying comparability.<sup>27</sup> The separate purposes and imperatives of these two levels of reporting should not be confused. Second, an easy-to-follow format will need to be devised to display the profile of student progress on the key learning areas so that both teachers and parents can clearly identify and interpret the pattern of performance. It is all too easy to drown in detail.

## 9. 'Soft' versus 'hard' accountability (moderation/certification)

In both systems, teachers are accountable to parents to explain and justify their assessment evidence and judgments. Generally speaking, this is a 'soft' form of accountability. It gains greater power when the assessments are 'high stakes' as they are in the senior years. It also gains greater power when students can 'challenge' the teacher, as they can in the senior years. This aspect of accountability, 'outwards' to students and parents, needs to be strengthened in both systems as a key aspect of 'engagement' between home and school and a key mechanism for improving the quality of teaching and learning in schools.

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<sup>27</sup> VET competencies are reported in greater detail; but there is an assumption of comparability, even though this assumption is unwarranted (since there is no moderation).

The more critical contrast between the two systems is, however, the absence of ‘high-stakes’ certification in Years 1 to 10. Even if some form of certification were reintroduced in those years, it would lack the ‘high-stakes’ character (for students) of the Senior Certificate.<sup>28</sup> The ‘high-stakes’ character of the Senior Certificate means that comparability of assessment standards across schools is an issue. This requires a system of moderation and means that schools are accountable to the Board through the moderation process for the quality of their assessments. Since the issuance of the Senior Certificate by the Board represents an endorsement (verification) of the school’s assessment judgments, this accountability is essential and undeniable. Moderation procedures (accreditation, monitoring, review, verification and random sampling) are, therefore, a large part of the Board’s operation and a determining factor in its relationships with schools. The Board must balance the responsibility of schools to conduct their own assessments against its own responsibility to approve the results recorded on the Senior Certificate.

Moderation is a serious matter for the Board. It is the mechanism for maintaining confidence in the Senior Certificate. It is also a major contributor to professional development among teachers. The pressure for moderation in Years 1 to 10 is not so great. The absence of certification removes any basis for accountability to a central authority. Without accountability there is no leverage for moderation to function as a quality control mechanism. Any sanctions would be limited. A process of moderation would be desirable, especially as a professional development mechanism and as a means of developing a degree of common understanding of ‘standards’, but its impact would be quite different from moderation in Years 11 to 12 — ‘soft’ versus ‘hard’.<sup>29</sup>

## **10. Extensive versus limited use of informal assessment**

The combination of school-based and high-stakes assessment for the Senior Certificate means that more emphasis is placed on explicit evidence in making and justifying assessment judgments. Of course, informal evidence continues to play an important pedagogical role in monitoring student progress during teaching and learning activities. However, it becomes critical that tangible evidence be obtained to substantiate formal assessment judgments. The collecting of this evidence becomes the focus of most thinking about assessment at this level.

The situation in Years 1 to 10 differs substantially in that justification of assessment judgments is internal to the school, and it is permissible to use running records of ‘in situ’ observations and critical incidents as part of the collection of evidence for the assessment judgment. There are some dangers in using informal assessment on its own. What we know about the human propensities for ‘mis-perception’ suggests that teachers should be encouraged to develop procedures for systematically cross-checking their perceptions of student performance. Since assessment is a key element of the pedagogy of outcome-based education, it is crucial that it be well done.

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<sup>28</sup> The Year 8 Scholarship Examination and the Year 10 Junior certificate were abolished long after they had ceased to serve any useful function (in 1962 and 1993 respectively). A Year 10 certificate is still provided by schools under the aegis of Education Queensland.

<sup>29</sup> This difference is not dependent on the particular forms that moderation might take. It is endemic.

## CONCLUSION

Most of the common features between Council and Board approaches to assessment derive from the school-based nature of assessment in both jurisdictions. This makes Queensland different from other Australian states and most other countries where examinations still dominate the end of secondary schooling. This should be a cause for celebration and affirmation, not for frustration and conflict. Queensland is well placed to continue to lead the world in the implementation of school-based assessment and the privileging of teacher judgment in the assessment process.

Most of the differences between Council and Board approaches to assessment are not changeable in the short term, though it may be possible to reach some degree of resolution in the long term. Whether these differences are perceived as serious or trivial may depend on the individual person's position and role in the school system. Schools and teachers may need assistance in managing any tension they perceive between the two approaches. This is as much a matter of how the differences are represented as what to do about them. This paper provides a basis for thinking about such matters.

The main area of tension between Council and Board approaches to assessment involves the styles of recording and reporting — the manner of presenting information to students and parents on the student's progress. It may be helpful here to summarise the main differences in recording and reporting. This summary will not resolve the practical issues involved but will at least clarify what they are.

### 1. 'How far' (levels) versus 'how well' (grades)

While there needs to be more discussion on whether there is a fundamental difference between 'how far' and 'how well' and what the implications are for assessment, there are important differences in the way each system defines and enacts the standards associated with the specified levels.<sup>30</sup> However, one similarity is that in both cases students can be expected to span a range of levels.

In both cases, each act of assessment or reporting positions the student on a scale of standards. In Council assessments, an eight-point scale is specified for each sequence of core learning outcomes. For Board assessment, a five-point scale is specified for each criterion (though outcomes are reported only on the Senior Certificate for the subject as a whole, referred to as Exit Levels of Achievement).<sup>31</sup>

It is common (in fact, necessary) in Board assessments to make judgments of student performance on a finer scale than the Exit Levels of Achievement and the interim 'grades' (usually on a five-point scale that parallels or anticipates or mirrors the Exit Levels of Achievement but uses a different terminology, such as A–E). Finer grading is often accomplished by using a second stage rating such as +, 0, – or by using a numerical scale on

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<sup>30</sup> As noted, both systems use the term 'levels' although the Board's 'Levels of Achievement' can be characterised as 'grades' whereas the Council's 'levels' are not.

<sup>31</sup> These 'scales' are ordinal (ordered categories), not equal-interval (measures).

which a range of marks maps to the grade levels (and standards).<sup>32</sup> It has been recommended that Council assessments not involve finer discrimination than the learning outcomes, though some schools have adopted between-level stages of ‘beginning’, ‘consolidating’ and ‘excelling’ or similar terminology. This level of detail would place unusual pressure on teacher judgment and recording processes, given the focus on profiling rather than aggregation in the Council approach. It may be that judgment and recording of levels within strands are sufficient (as recommended by the Council), but this may be a matter for schools to determine.

## **2. Different language and discourse concerning assessment**

Each system has its own particular vocabulary and concepts. These differences are quite extensive and are intended to highlight key distinctions in practice. This is quite appropriate since it is important that key distinctions are not blurred. It is particularly important that the Council adopt terms that do not lead to confusion of meanings where it is intended that assessment practice should be different. The *Position and Guidelines on Assessment and Reporting for Years 1 to 10* promulgated by the Council should go some way to clarifying terms, concepts and meanings for assessment in the implementation of Council syllabuses.

While not diminishing the importance of common features, we should recognise the clear differences in assessment thinking and practice in the two systems. This obviously involves different conceptual frameworks (developmental ‘levels’ versus qualitative ‘grades’), different structural features (strands/levels versus criteria/standards) and different reporting approaches (detailed profiles versus overall aggregation). Less obviously, it also implies different ways of talking about assessment, especially between teacher and student. These differences should not be minimised because they are integral to coherent implementation of assessment within each system.

## **3. Different structuring principles for outcomes/achievements**

Council syllabuses and assessment are structured (dimensionalised) in terms of sequences of learning outcomes within strands or substrands. Board syllabuses and assessment are structured in terms of criteria. Sequences and criteria both allow reporting in terms of ‘levels’. This creates a formal equivalence that should be useful for schools in managing assessment and reporting. However, there are important conceptual differences. In the case of Council syllabuses, ‘levels’ are stages of increasing complexity of learning through which all students are expected to progress; in the case of Board syllabuses, the ‘levels’ are benchmarks for reporting the quality of achievement serving as stepped learning targets. Furthermore, whereas, Council syllabuses emphasise reporting of progress on the separate sequences, Board syllabuses emphasise synthesis across the criteria to report a single overall ‘level’.

In both cases, assessment is best conducted in a way that allows students to demonstrate the ‘level’ they have reached at reporting point in time. Assessment situations or tasks need to be sufficiently ‘open’ in their performance or response requirements to allow each student to

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<sup>32</sup> The moderation procedures currently require placement on 10 rungs per level. The Subject Achievement Indicators (SAIs) require placement on an equal-interval scale of 200 points.



demonstrate the extent of their learning on the relevant dimensions of the subject. In both cases, different students can be expected to demonstrate different ‘levels’ of learning at any point in time. Assessment should allow the student’s current ‘level’ to be recognised (and a future learning path charted). Assessment in Council syllabuses focuses on levels within each sequence; assessment in Board syllabuses focuses on levels within each criterion.<sup>33</sup>

#### **4. Detailed profile versus synthesised ‘grade’**

Can the Council’s encouragement towards detailed profiling (down to the level of the learning outcomes) and the Board’s ‘global grade’ approach to reporting be reconciled? A distinction needs to be made here between the official reporting (Senior Certificate), school end-of-semester reporting and teacher record keeping. End-of-semester reporting in Years 11 to 12 is typically more detailed than the provision of a ‘global grade’. Teacher record keeping is typically more detailed again. In the absence of any formal certification for Years 1 to 10, it is probably more appropriate to compare school reporting and teacher record keeping in the two systems. It may be possible to bring these into greater harmony. As well, it would be interesting to explore whether reporting of learning outcomes on criteria might be possible for the Senior Certificate (although there may be cost implications for moderation procedures). The backwash effects of this on school reporting and record keeping could lead to a greater degree of parallelism between the two systems.

#### **5. Trade-offs in teacher judgments**

*All* judgments involve trade-offs. Multiple factors must be considered in terms of their relevance, meaning and importance for the decision at hand. Judgments about whether students have demonstrated a particular learning outcome involve trade-offs. Not only will there be several pieces of information deriving from different occasions and settings, but any learning outcome can itself be divided into components (sub-criteria or indicators). Performance on different occasions, in different settings and on different components is not necessarily uniform. All these pieces of information and components must be synthesised into an overall (on-balance) judgment. In many cases, such judgments are made implicitly (intuitively) rather than explicitly, without all the separate factors being spelled out and without the process of synthesis being conscious. Whether implicit or explicit, the process can, in principle, be made explicit and needs to be if the judgment is queried (for example, by a parent). This is a matter of being able to point to the evidence and explain how the evidence has been interpreted.

The difference between Council and Board approaches to assessment in terms of on-balance interpretation of evidence is, therefore, a matter of the levels at which this occurs. Board assessment involves synthesis at several levels of detail, from the level of the assessment task to the level of the subject overall. Assessment in Council syllabuses involves on-balance

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<sup>33</sup> This should not be interpreted as underestimating the differences between strands and criteria. Board syllabuses are not structured in terms of criteria and standards in the sense in which Council syllabuses are structured in terms of strands of content. Board syllabuses often have as part of their structures, topics, units strands and themes. These are content structures. Criteria and standards cut orthogonally across the content.

judgments at the level of the learning outcomes. Schools are encouraged not to engage in trade-offs for level statements and levels, but to require demonstration of all relevant learning outcomes to record accomplishment of level statements and levels.

A final comment relates to the relationship between curriculum and assessment. As previously noted, the fact that assessment in Years 11 to 12 is high-stakes assessment and leads to certification (issuance of an official certificate) means that both curriculum and assessment in Years 11 to 12 play a different role than in Years 1 to 10. In Years 11 to 12, there is Board control of the curriculum and assessment, within a defined framework of shared responsibility with schools, and necessarily so for the Senior Certificate to retain its credibility and usefulness. In Years 1 to 10, the Council exercises no control over the implementation of either curriculum or assessment, mainly because there is no certification and the assessments are not high-stakes. If the Council (or the projected new curriculum and assessment authority) were to acquire a quality assurance role for Years 1 to 10, this process would need to take an entirely different shape and serve a quite different purpose than Senior moderation.

There is, however, one point of essential similarity between Council and Board syllabuses. In both cases assessment is integral to the curriculum. Assessment is seen as inextricably intertwined with the curriculum, not something that can be separated from it. Decisions about assessment, including decisions about the conduct of moderation, are curriculum decisions affecting the framing, interpretation and implementation of the syllabus. Vice versa, decisions about the nature of the syllabus, particularly the framing of strands/outcomes and criteria/standards, affect the nature of assessment and moderation. It is likely that these two aspects of the work of the Council and the Board will become even more closely bound together in the future.

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## ATTACHMENT

### STRUCTURE OF LEARNING OUTCOMES FOR KEY LEARNING AREAS

#### English

*Strands (3)*: cultural (making meaning in contexts); operational (operating the language system); critical (analysing and evaluating texts).

*Sub-strands (3)*: speaking and listening; reading and viewing; writing and shaping – applicable to each strand (creating nine categories).

*Sequences of learning outcomes*: \* one for each sub-strand within each strand  
(Total sequences: 9).

#### Health and Physical Education

*Strands (3)*: health; physical activity; personal development.

*Sequences of learning outcomes*: 4 or 5 within each strand – numbered but not labelled  
(Total sequences: 13).

#### Languages other than English (LOTE)

*Strand (1)*: communication.

*Sub-strands (2)*: comprehending; composing.

*Sequences of learning outcomes*: 3 within each sub-strand – numbered but not labelled  
(Total sequences: 6).

#### Mathematics

*Strands (5)*: number; patterns and algebra; measurement, chance and data; spatial concepts and visualisation.

*Sequences of learning outcomes*: 2 or 3 per strand – defined as topics within the strand  
(Total sequences: 11).

#### Science

*Strands (5)*: science and society; earth and beyond; energy and change; life and living; natural and processed materials.

*Sequences of learning outcomes*: 3 per strand – key concepts within each strand  
(Total sequences: 15).

#### Studies of Society and Environment (SOSE)

*Strands (4)*: time, continuity and change; places and space; culture and identity; systems, resources and power.

*Sequences of learning outcomes (5 per strand)* – concept categories within each strand, each combined one-to-one with the five process categories.

*Process categories (5)*: investigating; creating; participating; communicating; reflecting (each process can occur in conjunction with any concept within each strand but must occur in conjunction with the designated concept)

(Total sequences: 20).

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\* Note: The term ‘sequence of learning outcomes’ has no official status. It refers to a continuum of learning outcomes across levels, one learning outcome per level, with quantum steps between levels.

### **Technology**

*Strands (4):* technology practice; information; materials; systems.

*Sequences of learning outcomes (2 or 4 per strand)* – ‘organisers’ that identify processes related to key concepts  
(Total sequences: 10).

### **The Arts**

*Strands (5):* Dance; Drama; Media; Music; Visual Arts

*Sequences of learning outcomes (3 per strand)* – process categories, e.g., for Dance: choreography; performing;  
appreciating  
(Total sequences: 15).