

Modularisation: A national and international exploration (summary report)

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1 Introduction

This report has been developed following the 2023 reviews of Scottish qualifications and assessments, It's Our Future - Independent Review of Qualifications and Assessment (Scottish Government, 2023a, hereafter referred to as IRQA), which made recommendations for a modular approach to qualifications as part of a wider programme of educational reform.

For the purpose of this paper, modularisation is defined as the design of an educational course as a series of modules (or separate units), that can be combined in different ways and can also be certificated independently. The modularisation (sometimes referred to as unitisation) of courses have been a feature of Scottish education in the recent past. We'll explore these in greater detail in section 2 — Scottish context — along with the lessons learned.

Section 3 of the report looks into modular systems used in other jurisdictions to provide some insight into the modularisation of National Courses in Scotland. It draws on key features leading to successful modularisation in the senior phase from five comparators: New South Wales (Australia), British Columbia (Canada), New Zealand, Estonia, and Wales. These jurisdictions have been chosen as they have similarities with the Scottish context, including population, political structure, exam structure, and notional learning hours.¹

The report also draws on practices in the rest of the UK (RoUK) and wider international jurisdictions where appropriate, and builds upon on previous SQA research on internal assessment carried out in 2022 (SQA, 2023a).

Methodology

A secondary research method was used to collect data used in this report. Historical data and research produced by SQA² was consulted for the Scottish context along with other sources. The research included a literature review to provide a contextual understanding of the educational systems of the selected five jurisdictions, focusing specifically on the following:

- Courses, Modules and Qualification Structures
- Approaches to Assessment
- Moderation and quality assurance

By using a literature review approach, the report and its considerations aim to be evidence based.

¹ Some of the jurisdictions examined are currently undergoing educational reform, and further changes may be implemented before this document is published. All information was accurate at the time of writing in 2024.

² As Qualifications Scotland's predecessor body, SQA is referenced throughout this report.

Limitations

This report draws from information in the public domain and from online sources, including international comparison websites, official government websites and websites of associated education and assessment agencies. Additionally, it only considers information published in English from these sources, but not information published in other languages.

2 Scottish context

Introduction

National Qualifications have undergone several reviews and changes, particularly in the four decades since the introduction of Standard Grade. This look at the Scottish context provides an overview of historical and current approaches, to modularisation and related assessment arrangements. We also look at the approach to modularisation in the next generation of Higher National Qualifications project.

The purpose of this report is not to advocate for a particular model of modularisation, but rather to support informed discussion and evidence-based decision making. By examining how different models have operated over time, the report aims to contribute to ongoing consideration of how future National Qualifications can best support learners, practitioners, and the wider education system.

The research reflects on the structure of:

- Standard Grade
- Higher Still
- National Courses designed to support Curriculum for Excellence
- Revised National Courses
- National Progression Awards
- Skills for Work Courses
- Next generation of Higher National Qualifications

Background and context

Modularisation and unitisation have featured in the Scottish upper secondary school courses since the 1980s, when certificated short courses were offered to third- and fourth-year learners. At that time, it was thought that modularisation would support balance and breadth in the curriculum and offer:

- ease of access to individual components of courses for all learners
- flexible accumulation of qualifications over a number of years

- ease of updating in response to technological and social change
 - the identification and provision of common elements in different courses
 - short-term targets to provide learners with motivation and clarity of purpose
- (SQA, 2008, 2023b)

For the purposes of this overview, modularisation and unitisation are terms which will be used interchangeably; there is little separation of these terms in academic discourse or official reports relating to Scottish education.

We focus on the delivery of the senior secondary phase of qualifications in schools — not in colleges, where unitised provision has long been embedded in the structuring of awards.

For reference, information around the modularised approach in the Next Generation (NextGen) of Higher National Qualifications has also been included.

Historical overview

Standard Grade (1984–2013)

Standard Grades were introduced in Scotland in 1984, with the first exams and certifications taking place in 1986, gradually replacing O Grades as part of a more inclusive, multi-level system of secondary assessment. They were aimed primarily at learners aged 14–16. Standard Grade courses were designed around 160 hours of notional learning delivered over two years in S3 and S4, with learners usually undertaking eight subjects, broadly reflecting the eight curriculum areas.

Attainment was graded on a seven-point scale: Grades 1–2 at Credit level, Grades 3–4 at General level, Grades 5–6 at Foundation level, and Grade 7 indicating course completion (SQA, 2008).

Standard Grade courses were structured around elements, which were broad areas of skills or knowledge within a subject. Examples included Reading, Writing and Talking in English, and Number, Algebra, Shape and Statistics in Mathematics. Learners accumulated evidence of performance across these elements, and certificates reported both element-level attainment and an overall course grade. Mixed attainment across elements was possible, for example achieving Credit in one element and General in another.

Standard Grades were ‘unitised’ in the sense that courses were broken down into components or units of study, but these were not independently certificated units in the later Higher Still sense. Learners could not ‘bank’ units towards a qualification; rather, units functioned as a way of structuring learning and assessment within an integrated course leading to a single overall award.

SQA Arrangements Documents described components as groups of aims, learning experiences and outcomes forming ‘the constants of the course and [promoting] a coherent structure’ (SQA, 2000, [1988]³). In subjects such as Physical Education, courses contained between five and eight components, each lasting between 20 and 50 hours (SQA, 2000, [1988]).

Assessment combined internal and external approaches. Practical and performance elements were generally internally assessed, sometimes with moderation by the Scottish Examination Board and later SQA, while exams and externally-assessed coursework were also widely used (SQA, 2008). This mix of assessment types was regarded by many as a strength of the system, allowing broad skills, including core skills, to be assessed flexibly and appropriately (SQA, 2021).

The structure of Standard Grade English illustrates this flexible approach. Assessment included internally-assessed Talking, externally-assessed Reading and Writing coursework folios, and an external exam. Teaching was organised into units of varying size and duration, ranging from extended studies of texts to single lessons or discussion activities focused on particular language skills or processes (SQA, 2000, [1988]).

Recognition of achievement

Typically, learners were enrolled for dual entry at Standard Grade (either Foundation / General or General / Credit). Statistics from SQA showed the qualification for which the learner was eventually awarded, for example, if a learner was registered for General and Credit, but failed Credit and passed General, the enrolment statistic would show General only. This form of tiering provided a safety net for borderline learners who had been given the opportunity to try for the higher level, in case they failed (Shapira and Priestley, 2018).

Higher and National Certificate (Circa 1960–99)

Prior to the Higher Still education reforms, the S5 or post-compulsory (16+) curriculum in Scottish schools was largely dominated by Highers, which were subject-based, one-year qualifications typically aligned with academic progression routes into higher education.

Scottish Highers were structured as standalone subject qualifications within the Scottish Certificate of Education (SCE) system.

Key features of the Higher structure included:

- **One-year courses:** Highers were typically studied over one academic year in S5, following Standard Grades in S3–S4.

³ Republished in 2000 by SQA, originally published in 1988 by the preceding awarding body.

- **Subject-based qualifications:** Learners usually studied five Highers simultaneously, with each subject assessed independently.
- **External assessment:** Assessment was primarily exam-based, administered nationally by the Scottish Examination Board (SEB). Some subjects also included coursework or practical assessment components.
- **Grading structure:** Candidates were awarded grades A–C for passes, with D representing a marginal fail in later years.
- **University entrance qualification:** Highers were the principal route into Scottish higher education institutions.

Alongside Highers, there was also a separate modular system of National Certificate (NC) modules introduced during the 1980s. These modules were:

- internally assessed
- unit-based
- often vocationally oriented

The post-16 curriculum therefore comprised a range of distinct pathways, with traditional academic routes centred on Highers sitting alongside more vocationally-focused provision, including National Certificate courses and other programmes designed to support progression into employment, further education and training.

This system was viewed as having certain strengths — ‘its flexible course structure, with short courses or modules, year-on-year decision-making and an S5 exit point, was seen to encourage participation and offer a range of certification opportunities for learners’ (Hodgson et al, 2004).

Challenges with the unitised structure of Higher and National Certificates

The modular structure of Higher and National Certificate (NC) courses was associated with several challenges. The increased use of internal assessment raised concerns about teacher workload, plagiarism, and grade inflation. In addition, the fact that NC modules and Highers required differing approaches to teaching, learning, and assessment was criticised for creating an ‘incoherent learning experience’ and reinforcing the perceived low status of modules (Hodgson et al, 2004).

The broader qualification and curriculum framework was criticised for shortcomings in curriculum design and learner progression. Progression through secondary education was viewed as inconsistent, with learning advancing too slowly during S1 and S2 but becoming excessively demanding in S5 for many learners undertaking Highers. The existing qualifications framework was seen as offering insufficient support for middle- and lower-attaining young people who continued in education beyond the age of 16. While modular qualifications provided an alternative route, their comparatively low status often led learners to attempt Highers even when these were not the most appropriate option, contributing to substantial failure rates.

Concerns were also raised about the weak links between modular qualifications and Highers, which restricted progression opportunities and reinforced perceptions of a fragmented curriculum. In addition, vocational pathways were regarded as insufficiently developed and lacking parity of esteem with academic routes (Hodgson et al, 2004).

Higher Still 1999–2014

The Higher Still programme introduced a 'unified framework' of National Qualifications based on a structure of component units and courses (which contained three component units) for all academic subjects and vocational areas at a progressive set of levels: Access, Intermediate 1, Intermediate 2 (14–16), Higher and Advanced Higher (16+).

The building blocks of the system were 40-hour National Units which could stand alone as certificated qualifications or be combined into 160-hour National Courses in which the overall grade was determined in an external exam (SQA, 2008). Each component unit was internally assessed and on a pass-fail basis (Raffe et al, 2007).

In this system, schools typically provided opportunities to take the unitised courses in up to five subjects in S5 at Intermediate or Higher levels, and in S6 to move to the level above that achieved in S5 — so Advanced Higher for candidates who achieved Higher, or Higher for those who achieved Intermediate 2 (Sliwka and Spencer, 2005).

Higher Still was initially viewed as a flexible qualifications system that aimed to promote parity of esteem between academic and vocational qualifications. The unitised structure of National Courses was celebrated internationally and was viewed as offering flexibility since they could be combined in different ways and taken as units or courses. The graduated cognitive level of subjects and the modular construction were viewed as offering significant advantages over more traditional systems of course design (SQA, 2008).

Recognition of positive achievement

In this system, candidates who did not achieve a passing grade in the final (external) exam would be awarded the course below, if they passed the units of the course. For example, if a candidate failed the Higher English external exam but had passed all of the internal units, they would be awarded an A at Intermediate 2. However, this mechanism was seen to undermine efforts to gain proper recognition for units and, after a period of consultation, Grade D was introduced in 2004, replacing the fallback arrangement of Grade A at the NQ level below (SQA, 2012).

Challenges with the Higher Still modularised structure

There were several challenges associated with this approach:

- The overload of assessments — with learners taking eight subjects and having unit assessments for all, there were pinch points at certain times of the year.
- The cascading approach to teacher training for internal assessment of units was problematic — some schools and local authorities were better at doing this than others. This led to an uneven application of standards.
- Internal assessment of units was felt to be too prescriptive, offering learners little personalisation or choice and constricting practitioners in the assessment methods they could employ.
- Assessment was felt to be atomised — practitioners were ‘chasing evidence’ to tick off a detailed list of criteria.
- National Assessment Banks (NABs) for unit assessment were viewed as ‘mini exams,’ leading to rounds of summative assessment and leaving little time in courses for the development of skills.

(SQA, 2014)

Curriculum for Excellence National Courses (Unitised) 2014–17

In 2014, Curriculum for Excellence (CfE) reform led to the replacement of Higher Still courses. Like the legacy courses, CfE National Courses employed a unit-based approach, incorporating internally-assessed, ungraded units. However, CfE unit specifications aimed to be more user-friendly, flexible and open, with more room for centres and learners to choose than Higher Still courses.

To achieve this, the new units had fewer, broader outcomes, specified in a way that encouraged synoptic and holistic assessment — relying on assessors to exercise more professional judgement about learners’ work and attainment of outcomes in the course of normal teaching and learning, rather than being required to gather evidence for a detailed list of criteria. Assessment criteria were more generic, and there was less prescription of both content and assessment approaches (SQA, 2010). All unit outcomes and assessment standards had to be met to pass. There were no cut-off scores or thresholds, although these were implemented later to try to reduce the assessment load, which worked well in National 2 to National 4 courses.

The overall approach to assessment in this structure aimed to reduce the time learners spent on assessment for certification, which would allow for more time for learning, and more focus on skills and integration with other aspects of learning. The model emphasised the importance of unit assessments being suitably skills-based and not ‘mini exams’ like the legacy NAB resources (SQA, 2016).

Units were assessed internally by centres, using either centre-devised or SQA-devised assessment tasks, which were available on the SQA secure site as Unit Assessment Support Packages (UASPs). These assessment packs were non-mandatory and were provided with a view to providing teachers and lecturers with exemplification of how assessments could be devised to support personalisation and choice (SQA, 2021).

National quality assurance arrangements were developed to support consistency in internal assessment. Although early verification arrangements were viewed as burdensome, subsequent revisions reduced the administrative requirements and adopted a more targeted approach focused on centres that needed support (SQA, 2016; SQA, 2021).

Alongside the unit assessments, National Courses typically included external assessment, usually combining a final exam with coursework such as an assignment, practical activity or performance. The external assessment determined the overall course grade, while units were assessed on a pass/fail basis.

Recognition of Positive Achievement

As all National Courses were designed in hierarchies, learners who had completed the National 5 units, but had been unsuccessful in the National 5 external assessment, could automatically receive a National 4 certificate, if they had successfully achieved the National 4 Added Value Unit.

In practice, National 4 Added Value Units were delivered and assessed alongside National 5 courses as a fallback position, further adding to practitioner workload. This fallback position, often referred to as recognising positive achievement, resulted in a significant number of young people being presented at two levels and increased teacher workload.

Challenges with CfE's modularised structure

Some issues were associated with CfE's unitised structure of National Courses:

- Practitioner workload, particularly in S4 where SCQF 4 and 5 were delivered in bi-level classes.
- Learner workload, particularly between January and April, when there were demands for cumulative unit assessments, coursework, and final exam preparation (Scottish Government, 2016).
- The design and operation of some unit assessments in certain subject areas.
- The broadly-stated nature of outcomes and flexibility allowed by unit specifications meant that standards were not always clear.
- The benchmarking of units at C level or minimum competence did not prepare candidates for external course assessment.

- It was difficult for some schools to adapt their recording systems to tracking pupil progress against unit assessment standards.
- Insufficient time was available for learning, teaching and assessment of the courses, particularly given the unclear structure and flexibility afforded by the qualification suite, which was timetabled using the existing arrangements for legacy courses.
- Learning and teaching were seen as assessment-led.
- There were difficulties with the operation of verification processes.

Revised National Courses 2017 to present

Units were removed from National Courses at National 5 to Advanced Higher levels in 2017, meaning that courses moved from a modular structure to a more linear format, with assessment taking place at the end of the course. This approach was designed to reduce over-assessment and streamline the learner experience (SQA, 2021). As a result of removing unit assessments, greater emphasis was placed on course assessment to ensure that the full range of skills, knowledge and understanding within each course was still assessed.

Although the unit specifications were no longer required for certification, many teachers and lecturers continued to use them as part of their lesson planning. Practical courses had to introduce theoretical components to assess the aspects of theory taught in the units. This meant the introduction of question papers in courses that had been traditionally 100% practical. The relatively small amount of theoretical knowledge required in these courses meant these question papers could quickly become predictable, undermining their validity (SQA, 2021).

Recognising Positive Achievement — the automatic fallback from National 5 to National 4 — ended in session 2019–20 due to the removal of units from courses at National 5. Candidates who were unsuccessful in their National 5 course assessment, but who passed a combination of SCQF level 5 freestanding units, and the National 4 Added Value Unit, would no longer automatically achieve the National 4 course.

The removal of recognising positive achievement, or ‘fallback’, has contributed to teacher workload associated with over-assessment and over-presentation, particularly of borderline candidates who are being entered for all of the units, including the Added Value Unit at National 4 as well as the National 5 course assessment (SQA, 2021). Dual entries for both courses increased substantially and remain at high levels today.

Challenges with the revised National Courses

Some challenges with the revised approach to National Courses:

- The units within National Courses were outcome based, underpinned by educational taxonomies to help support the development of higher-order cognitive skills and to secure

constructive alignment.⁴ The revised National 5, Higher and Advanced Higher courses had to address the loss of units by ensuring that content was clarified so that practitioners knew what needed to be taught and learned, and how that learning could be demonstrated in course assessment.

- Hierarchies that were designed across levels for the purpose of progression became less clear.
- Bi-level delivery became more difficult as teachers and lecturers now had to identify points of progression within the course specifications, rather than having it clearly communicated at unit level. This is particularly true for National 4 and 5 classes, where National 4 remains unitised and National 5 is now linear (SQA, 2021).

Non-NQ senior phase qualifications

Outside of the National Courses, several other qualification types provide examples of modularisation. The NextGen:HN qualifications, in particular, are considered to implement modularisation successfully. These qualifications are summarised in the next few sections below, including information about their modular structures, assessment and grading (including digital assessment) and quality assurance.

National Progression Awards

National Progression Awards (NPAs) form part of the National Qualification Group Award suite of qualifications. NPAs are delivered in secondary schools and colleges in support of CfE and in line with Developing the Young Workforce (DYW), to ensure appropriate opportunities for work-based learning in the senior phase offering. NPAs are unitised, internally assessed, and ungraded. They are available from SCQF levels 2 to 6.

An NPA and its component units are allocated to a level appropriate to their position in the SCQF. NPAs have a minimum value of 12 SCQF credit points and can be made up of HN units, SVQ units, National (Workplace), or National Units. There is no maximum credit level. Units at any SCQF level are allowed to count towards an NPA, but more than half of the SCQF credit points must be at the same level of the NPA.

Additionally:

- NPAs must be made up of a minimum of two units and may have mandatory units only or mandatory and optional units.

⁴ According to educational psychologist, Jon Biggs, 'Constructive alignment ensures that teaching, learning, and assessment are purposefully connected, facilitating meaningful learning experiences for students.' ([Constructive alignment – short primer – QAA Competence Based Education Project](#))

- NPAs are assessed internally, ungraded, and externally quality assured.
- Unit specifications are outcome based and align to standards based on the unit type.
- Digital assessment is permitted, which may include e-testing or use of e-portfolios or e-checklists.

Skills for Work courses

Skills for Work (SfW) courses were the first courses designed in support of CfE. SfW courses focus on employability and practical skills needed for the workplace. The courses offer learners opportunities to learn these skills through practical experiences linked to vocational areas. They may allow learners to spend time at a local college, training provider or employer as an integral part of their studies.

Mostly available at SCQF levels 4 and 5, some courses are also available at levels 3 and 6. The courses are packaged as National 3, 4, 5 or Higher qualifications. As with other courses at National 3 — Higher, SfW courses at National 3 carry 18 SCQF credit points, with 24 SCQF credit points awarded at National 4, National 5 and Higher. The mandatory section at all levels comprises a minimum of 6 SCQF credit points, while optional units can account for up to 18 SCQF credit points.

Only National Units can be used in SfW courses.

Additionally:

- SfW courses may have mandatory units only or mandatory and optional units.
- SfW courses are internally assessed, ungraded and externally quality assured.
- Assessments can include practical activities and workshops supported by assessor observation checklists, performance evidence, written and/or oral evidence, candidate folios, case study scenarios and question and answer discussions.
- Candidates also carry out self-evaluations. Assessments and self-evaluations should reflect on employability skills in the work placement environment or simulated environment.

NextGen:HN

Recent years have seen the reshaping of SQA's (now Qualifications Scotland's) Higher National Certificate (HNC) and Higher National Diploma (HND) offer. The new Next Generation Higher National (NextGen: HN) qualifications at HNC (level 7) and HND (level 8) are standalone qualifications worth 120 SCQF credit points (equivalent to 15 SQA credits) (SQA, n.d.).

As with other HNVQ courses, the SCQF level of units can vary within a course. However, at least 80 SCQF credits of the total of 120 must be at the level of the overall course — level 7 for HNC and level 8 for HND.

These courses develop critical and technical skills specific to a variety of industries and subjects, and also embed transferable skills sought by employers, drawing on Skills Development Scotland's *Skills 4.0* to incorporate meta-skills.

Learning for Sustainability (LfS) is embedded in the qualification design. The LfS commitment also aligns with the UN's Sustainable Development Goals and SQA's commitment to sustainable learning.

Additionally:

- The NextGen:HN modular structure employs larger (and fewer) units of learning to add a more holistic approach to delivery. As in previous HNs, the size of units can vary.
- Assessment is internally delivered and externally quality assured.
- Grading is holistic and competence-based. Rather than a letter grade approach, outcomes are Achieved, Achieved with Merit, or Achieved with Distinction.
- Assessments can include project-based assessment, groupwork, self and peer assessments, assessment of meta-skills as well as traditional written work and portfolios.
- Practitioners can integrate and combine assessments for different units to reduce the overall number of assessments. Representative samples of learners' work can be used to support outcomes. This is dependent on practitioners' judgement to ensure that a sufficient sample of evidence has been evaluated and assessed.
- Pilot centres have access to, and training support for, Stellar, a digital tool for the assessment of creative work.
- Practitioners are supported by a designated Qualifications Scotland External Quality Assurer (EQA), pilot centre webinar content, assessment support information and Academy modules. EQAs engage with course teams throughout the academic year.
- 'Digital by design' is one of the NextGen:HN design principles.

3 International context

Overview

The purpose of this chapter is to provide information on approaches to modularisation and related assessment arrangements in a range of international jurisdictions. The research into modular structures has focused on modular systems used in:

- New South Wales (NSW) [Australia]
- British Columbia (BC) [Canada]
- Estonia
- New Zealand
- Wales

The jurisdictions have been chosen based on a variety of criteria, including:

- Population: Estonia (1.3 million), BC (5.2 million), New Zealand (5.1 million), and NSW (8.3 million) and Wales (3.1 million) are, like Scotland, relatively small jurisdictions.
- Political structures: NSW, BC, and Wales, like Scotland, have devolved educational processes, but are also part of a larger state. Estonia became independent from the USSR in 1991. New Zealand is an independent state, but one that has been impacted educationally by the legacy of the British Empire.
- Exam structures: All the jurisdictions selected are, to some degree, using modularised systems.
- All have ongoing or recent reform processes.
- Overarching principles: Several have cross-curricular objectives similar to CfE in some respects.
- Notional learning hours: For practical reasons, notional learning hours in comparable systems need to be equal to or less than those required for a typical candidate in Scottish Senior Phase.
- An overarching 'diploma style' title is present in some cases, such as the Higher School Certificate (HSC) in New South Wales, the Dogwood Diploma in British Columbia, and the National Certificate of Educational Achievement (NCEA) in New Zealand. The IRQA has proposed a 'Scottish Diploma of Achievement', so incorporating some systems using this approach may be of some value in exploring modularisation within qualifications systems.
- Performance: Except for Wales, all are jurisdictions which have outstripped Scottish attainment in the PISA (2022) scores for mathematics.

Courses, modules and qualification structures

This section provides an overview of qualifications in the comparator jurisdictions, gives context about wider processes of senior phase education, and provides detail of qualification structures. Appendix 1 includes a table with a side-by-side overview of structures and content within senior phase systems, and another table with the same for notional learning hours.

Curricular organisation and structure

All the jurisdictions included, except Scotland, use modular structures across their senior phase offering. A variety of approaches are evident across international jurisdictions. Length of study in senior phase can vary, for example:

- Two-year senior phase in NSW
- Three years with a single qualification outcome in BC and Estonia
- Three years with multiple qualification outcomes in New Zealand and Scotland
- Two two-year courses in Wales (two GCSE and two A-level)

Many systems employ a degree of prescription based on broad curricular areas. However, a modular approach allows for a variable degree of flexibility of focus where content is concerned.

For example, in BC, learners studying mathematics have a wide range of course options designed to support a variety of academic and vocational onward pathways within a school setting, ranging from detailed focus on calculus or statistics, through to workplace or apprenticeship mathematics. This allows for credit and level requirements to be met in a way which is best suited to the learner.

By contrast, while senior phase mathematics in Estonia is also mandatory, the curriculum provides a detailed list of knowledge, skills, and competences that learners must exhibit. A similar approach is apparent across subjects, providing a level of detail that extends to classroom equipment and allocation of teaching hours as well as knowledge, skills and competences. In addition, there is a clear separation of academic and vocational pathways, with learners (usually) attending separate establishments for each pathway. In this way, more prescription within the system can be a means of supporting effective teacher judgements in a system which employs a high level of internal assessment. Learners choose between 'narrow' and 'extensive' mathematics, differentiating by the amount of study rather than by the focus or level of demand of study.

All systems require the study of first language and mathematics as a graduation pre-requisite. In addition, baseline literacy and numeracy tests, beyond the subject-specific curriculum, may also be required as a minimum standard for graduation. These tests are often done online, may be at a level of demand lower than that of the course overall, and can be sat repeatedly throughout the course of study.

Many also require an additional science or language competence or, for learners in minority language education, certification in both main and minority state languages is often possible.

A summary of mandatory components in each jurisdiction is as follows:

- In NSW, learners need to achieve Level 3 or 4 literacy and numeracy certification through online reading, writing and numeracy tests (NSW Government, 2024). Some learners with a disability studying Life Skills courses may be exempt from meeting the minimum standard to achieve their HSC credential.
- In BC, learners must complete three graduation assessments, Grade 10 Literacy and Numeracy and Grade 12 Literacy. French immersion learners must complete four Provincial Graduation Assessments, three in literacy and one in numeracy. Francophone learners must complete five Provincial Graduation Assessments, four in literacy and one in numeracy. From 2023–24, all learners must complete 4 credits of Indigenous-focused coursework (BC Government, 2023a).
- In Estonia, to graduate from upper secondary school, learners have to pass state exams in mother tongue Estonian language or in Estonian as a second language, Mathematics, and a

foreign language, in addition to passing school exams and learner study or practical work (European Commission, 2023).

- In New Zealand, learners need to achieve 20 credit co-requisites to gain an NCEA qualification, usually gained over more than one year. These include 10 Literacy or Te Matatini credits and 10 Numeracy or Te Pāngarau credits (NZQA, 2024a). While there are no compulsory subjects in the final two years (Years 12 and 13), most learners must study English, Mathematics and Science in Year 11 (NZQA, 2023a).
- In Wales, Mathematics, English and Science are usually mandatory at GCSE level.

A variety of approaches to crediting non-classroom learning are used in some jurisdictions. For example:

- In New Zealand learners can obtain credit equivalent to two level 2 units for successful completion of driving tests (NZQA, 2024b).
- In NSW, learners may gain approval for study of additional courses through self-tuition or with an external provider. VET courses must be delivered by Registered Training Organisations (NSW Government, 2022a).
- BC has detailed arrangements for credit from external providers, coupled with potential credit for work experience within the qualification structure, or through providing scope within courses for external collaboration (BC Government, n.d.).

Overview of qualifications and structures

This is an overview of the structure of qualifications taken in the senior phase of learning. Scottish learners have a high level of teacher contact compared with many other jurisdictions. Further details are provided in appendices 1 and 2.

New South Wales

The HSC, overseen by the NSW Education Standards Authority (NESA), requires 10 units of HSC courses, usually in year 12. These are preceded by 12 units of preliminary courses, usually in year 11. Most courses have a two-unit value (44 credits total). A unit of study comprises 60 hours indicative time in both Preliminary and HSC courses (NSW Government, 2019).

Learners must study two HSC English credits in addition to (non-modular, online) baseline graduation literacy and numeracy tests.

There are two main types of course: Board Developed and Board Endorsed (NSW Government, 2015; 2022b). Board endorsed courses can be developed with external providers and count toward the HSC, but not to tertiary admission ATAR (Australian Tertiary Admission Rank) scores, which may impact upon parity of esteem.

British Columbia

In BC, learners receive the British Columbia Certificate of Graduation ('Dogwood Diploma') awarded by the Government of British Columbia (BC Government, 2024). This requires a minimum of 80 credits (usually divided into 4 credit courses) over three years. A unit of study comprises 25-30 notional learning hours.

Of the 80 credits:

At least 16 credits must be at Grade 12 level, including mandatory Language Arts 12 and Career Life Connections.

At least 28 credits must be elective course credits.

52 credits are required from:

- Career-Life Education (4 credits), and Career-Life Connections (4 credits)
- Physical and Health Education 10 (4 credits)
- Science 10 (4 credits), and a Science 11 or 12 (4 credits)
- Social Studies 10 (4 credits), and a Social Studies 11 or 12 (4 credits)
- A Math 10 (4 credits), and a Math 11 or 12 (4 credits)
- A Language Arts 10, 11 and a required 12 (12 credits total)
- An Arts Education 10, 11, or 12 and/or an Applied Design, Skills, and Technologies 10, 11, or 12 (4 credits total)
- Indigenous-focused (4 credits)

Additionally, the three mandatory non-modular graduation assessments (Grade 10 numeracy, Grade 10 literacy and Grade 12 literacy) are taken online. Different arrangements apply to learners studying through the medium of French (French immersion and Francophone learners), which is the first language of 1.7% of BC residents.

Estonia

In Estonia, while vocational education is a separate pathway, school leavers from general education (Ministry of Education and Research, 2022a) pursue a School Leaving Certificate and State Examination Certificate managed by the Estonian Ministry of Education (Ministry of Education and Research, 2014; 2022b). Learners complete 96 courses (modules) over three years in full time education. One module is equal to 35 academic hours. With 175 academic days, a year divided into four school terms, which equates to approximately eight modules per term. Estonian schools have a considerable degree of freedom in delivery but are regulated by detailed General Provisions (Ministry of Education, 2022b) and are guided as to content and even classroom equipment by the curricular documents.

Three subjects are assessed in state exams each year: Language 1 (Estonian, either as the mother tongue or as an additional language), Language 2, and mathematics. These are compulsory. These subjects are also part of the leaving certificate, which is primarily internally assessed, though some have optional exams. The curriculum is organised across curricular areas and promotes considerable breadth of learning. It comprises:

- Estonian language and literature - 6 courses
- Literature - 5 courses
- Foreign languages:
 - A) Estonian as a second language - 9 courses
 - B) foreign language at B2 proficiency level -5 courses
 - C) foreign language at B1 proficiency level -5 courses
- Mathematics:
 - A) Narrow mathematics - 8 courses
 - B) Extensive mathematics - 14 courses
- Science:
 - A) Biology - 4 courses
 - B) Geography (physical geography) - 2 courses
 - C) Chemistry - 3 courses
 - D) Physics - 5 courses
- Social studies:
 - A) History - 6 courses
 - B) Civics and citizenship education - 2 courses
 - C) Personal, social and health education (PSHE) - 1 course
 - D) Geography (human geography) - 1 course
- Art subjects:
 - A) Music - 3 courses
 - B) Art - 2 courses
- Physical education – 5 courses

New Zealand

The NCEA is issued by the New Zealand Qualifications Authority (NZQA).⁵ There are three levels within the NCEA: 1, 2 and 3. Learners earn 80 credits per year, 10 of which are literacy credits (taken in either English or Te Reo Māori) and 10 of which are numeracy (or te Pāngarau) credits (NZQA, 2024b). Each credit represents 10 notional hours of teaching, learning and assessment. An approximate comparison with qualification levels according to the SCQF and in England is (NZQA, 2023b):

- Level 2 = N5/SCQF 5/GCSE
- Level 3 = Advanced Higher/SCQF 7

Wales

The Welsh Joint Education Committee or WJEC is the body responsible for setting and marking exams in Wales (WJEC, 2024). Reform is currently underway in Wales, with the new made-for-Wales GCSEs introduced from 2025–27 for years 10 and 11 (Qualifications Wales, 2024). AS and A levels are taken in years 12 and 13. Alongside the new GCSEs, the following qualifications will be offered to 14- to 16-year-olds:

- VCSEs (Vocational Certificate of Secondary Education)
- Foundation qualifications
- Skills for Life and Skills for Work qualifications
- Personal Project qualification

The new Vocational Certificate of Education (VCSEs) will offer a vocational parallel to GCSEs and will have the same notional learning hours, but use a different name and grading system to GCSEs. This contrasts with Scotland where the shape, name and grading systems are all different for vocational qualifications.

Single award GCSEs last for 120–140 guided learning hours. Double awards will be available in Welsh Language and Literature, English Language and Literature, Science, and Mathematics and Numeracy.

Although GCSEs have been modularised, there is an expectation that at least 40% of the award will be assessed at the end of the course. Mathematics, Science and English are core subjects and learners are expected to study these at GCSE.

⁵ The information provided refers to NCEA/NZQA practice at time of writing (2024). Subsequent announcements have indicated that the curriculum is being [updated](#), with full implementation planned for 2027.

Approaches to assessment

All of the jurisdictions identified have modular systems. A tabulated overview is available in appendix 2. A key feature across all jurisdictions is the use of internal assessment. Effective management of internal assessment, using a wide range of assessment approaches, appears to be key to avoiding over-assessment and workload challenges akin to that which was experienced in previous modular National Courses in Scotland. Two infographic models, created by SQA from data available online, are provided as an illustration of what this looks like in practice for NSW.

New South Wales

NSW uses a combination of internal assessment, using a variety of methods, and external final assessments. Each are worth 50% of the overall course grade. The number of assessments during the academic year is capped at four per course. This may help to avoid over-assessment and manage workloads. NESA's syllabus packages, including assessment and reporting documents, indicate the mandatory components for HSC assessment and the weightings to be attached to those components. Schools run an assessment programme for each HSC course, following NESA's requirements (NESA, 2022).

Each school will determine:

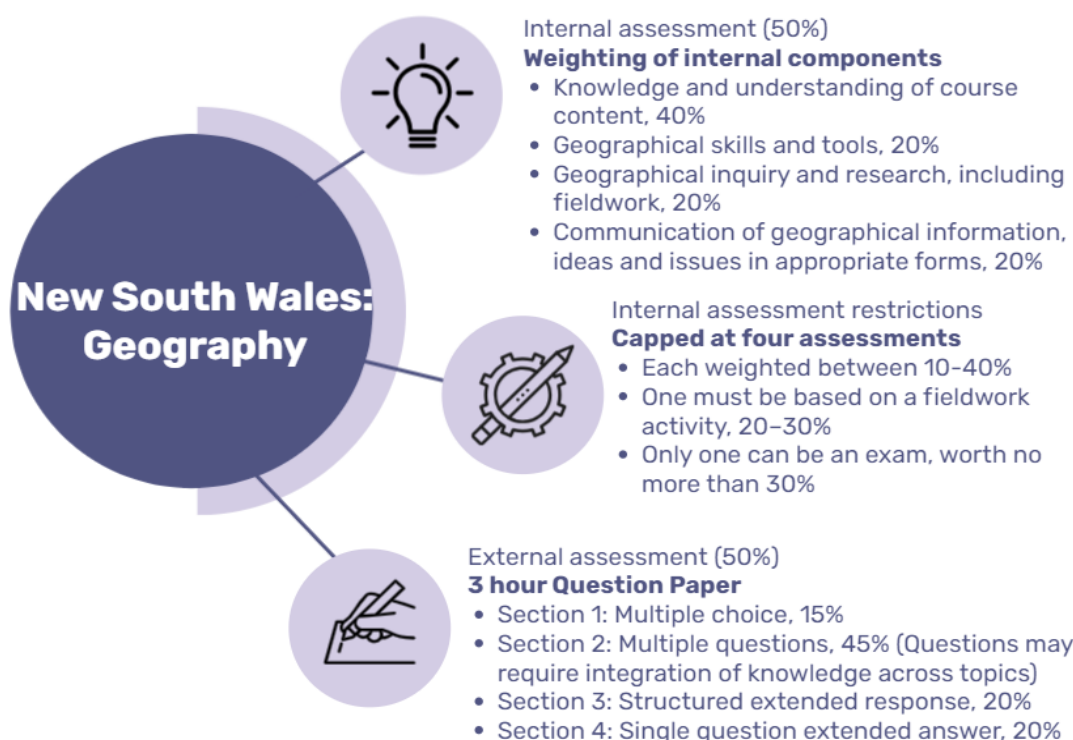
- the practical and written tasks, such as tests, assignments or projects, on which their assessments are to be based
- the weightings to be allocated to each task, except when these are specified in the syllabus package

Candidates also sit an external final exam for all HSC Board Developed Courses, except for VET courses. VET frameworks courses have an optional HSC exam. All learners in the state will sit the same exam for each course, which NESA sets, conducts, and marks. Most courses have written exams, but some also have practical or performance exams. Each HSC exam assesses how candidates achieve the learning outcomes from the course syllabus and contributes 50% of the final HSC mark for that course (NESA, 2022).

The HSC results will show three marks for each course. These include: an assessment mark, an exam mark, and an HSC mark. The HSC mark is the average of the first two marks. In addition, learners are provided with a performance band, which shows their performance compared with other learners on a particular course (NESA, 2022)

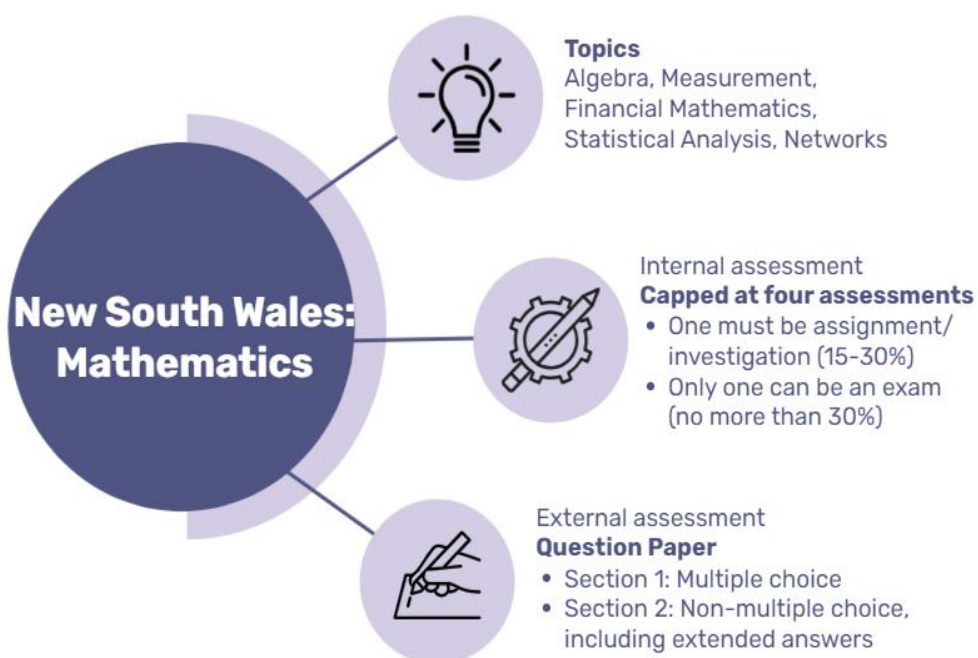
The following infographics outline course structures NSW for HSC Geography and Mathematics, providing a visual overview of internal versus external assessment in this setting.

Figure 1: New South Wales HSC Geography



Data source: <https://www.nsw.gov.au/education-and-training/nesa/news/all/new-geography-11-12-syllabuses>

Figure 2: New South Wales HSC Mathematics



Data source: <https://curriculum.nsw.edu.au/learning-areas/mathematics>

British Columbia

Only (non-modular) online graduation baseline tests in literacy and numeracy are externally assessed. Internal assessment is widely used, and the BC Curriculum provides detailed support for all areas, subjects, and courses, structured around the curricular themes 'Big Ideas (understand), Curricular Competences (do), Content (know)' (BC Government, 2024). These are accompanied by elaborations to support teachers and learners.

Formative approaches are strongly encouraged, with teachers using best outcome evidence to make assessment judgements against. This is supported by performance standard exemplification and principles of quality assessment.

Grades and percentages are used to report learner achievement. The provincial government provides resources for four methods — performance assessment, portfolio assessment, learner-centred conferences and learner self-assessment.

For Provincial Assessments, one exam in each subject can be taken per session (BC Government, 2023a).

Estonia

Almost all assessment is internal and employs both formative and summative approaches, except for external assessments in Estonian language, second language and mathematics at the same level as the qualification. These are separate state exams and do not form part of the modular structure of general secondary education in Estonia. However, these subjects are also internally assessed based on exceptionally detailed curricula and supported by state regulations.

Learners take 96 modules over three years. Each module equates to 35 hours of learning time (Ministry of Education and Research, 2014a). The system is viewed as high-performing, but, along with Finland, has experienced criticism at times due to a lack of accountability. However, the recent developments appear to have allayed concerns. (Erss, 2023)

New Zealand

The NCEA is based on three types of standard: achievement standards, unit standards, and skill standards. Achievement and unit standards are also called assessment standards. Each standard is worth a specific number of credits within each course, and assessment of these is both internal and external. Achievement standards can be internally or externally assessed either by exam or portfolio. Digital assessment is becoming increasingly prominent in external assessments: all literacy and numeracy assessments, Common Assessment Tasks and activities, and an increasing number of end-of-year exams are currently online.

Wales

In Wales 14–16 qualifications are under development. Although the GCSE brand has been retained, the courses are expected to employ a wider range of assessment methods — including project-based and digitally-enabled assessment — and allow a broader range of assessment evidence, such as spoken presentations, portfolios, and digital products.

A parallel VCSE offer will provide vocationally-focused study pathways (Qualifications Wales, 2024).

Moderation

This section outlines the moderation processes in each of the jurisdictions. As Wales's reform process is still under development, it is excluded from this section, although relevant information is provided in the tables in the appendices where appropriate.

Procedural frameworks and contexts

The key feature across the five jurisdictions studied is the extensive detail in the curricular documentation setting out skills, knowledge, and competences, which is a contrast to the current Scottish position. All the jurisdictions have more extensive upper secondary curricular documentation than Scotland, with many providing online systems and processes to support internal assessment:

- In NSW, curricular specification is extremely detailed. Online marking simulations provide additional assessment and development support for teachers in remote and rural schools, and support standardisation. An online hub also provides a range of online support resources for teachers.
- The BC Curriculum provides detailed support for linking curricular objectives with assessments, performance standard exemplifications, and documentation on principles of quality assessment provide further guidance along with a Framework for Enhancing Learner Learning and a Policy for Student Success (BC Government, n.d.).
- New Zealand also provides detailed support and exemplification for all subjects and individual standards, and has a detailed curricular Assessment Online Resource available (NZ Ministry of Education, 2023).
- Estonia has exceptionally detailed curricula and General Provisions documentation. These facilitate a system with mainly internal assessment by providing clear, detailed, and specific guidance on all aspects of learning and the curriculum, leaving teachers considerable freedom to assess in the best way for their learners. The eKool facility is near-universal in usage and also facilitates tracking and feedback processes (Ministry of Education and Research, 2014).

Internal assessment moderation

To maintain assessment standards, each of the jurisdictions undertakes internal checks and adopts quality assurance practices. These include:

- NSW schools are required to develop an assessment program for each Year 11 and Year 12 course. This means that learners from different schools experience different assessment conditions. NESA provides information about the responsibilities of schools in developing assessment programs in course-specific assessment. To maintain standards, NESA applies statistical moderation to all school assessment marks. They also continually monitor grades submitted by schools, checking for any anomalies. A significant part of the assessment burden falls to the schools in NSW. Schools are also required to keep hold of samples of learner work from Years 10, 11 and 12, depending on the course of study.
- In BC formative approaches are strongly encouraged, with teachers using best outcome evidence to make assessment judgements. This is supported by performance standard exemplification and principles of quality assessment.
- Schools in Estonia are required to conduct self-evaluations at least once every three years. The self-evaluation tools have been developed by the Ministry of Education. However, they are voluntary, and consistency of use varies from school to school. Estonia's complex system of shared accountability can lead to an unclear distribution of responsibilities. A 2014 report indicates that there is little validation or evidence collection undertaken in the Estonian system (and the Finnish one) (Winston Churchill Memorial Trust, 2014). Moderation / verification as it may originally have been present in Estonia appears to have been removed, possibly due to budget considerations. It has been replaced by a high-trust relationship between schools and the Ministry of Education which has evolved over the last couple of decades.
- In New Zealand internal moderation processes must include clearly set out processes, including a process for clarification on internally-assessed standards. This involves a second subject expert within the school verifying a sample of the marked work. Schools must complete internal evaluation before they report results to NZQA, the national body responsible for the NCEA external exams and for external moderation of internal assessments.

External assessment moderation

External moderation across the jurisdictions:

- NSW employs an online system for external moderation of coursework, coupled with moderation using final exam grades as a further check (NESA, 2018). The moderation process adjusts school assessment marks using both internal and external components so they can be compared across schools, and is performed by NESA. NESA will also carry out random short-notice inspections of schools (individual non-government schools, systemic

non-government schools, and government schools) monitoring areas of policy and curriculum (NESA, 2022).

- In BC moderation appears to be light-touch, but districts report annually on test scores and other measures. Schools and districts are required to develop multi-year improvement plans and submit annual progress reports that include aggregate and subgroup results on learner outcomes. Outcomes that are measured include performance on provincial assessments, graduate and transition rates, and district-determined measures for learner well-being (BC, 2023a).
- Estonia does not have a clear process for external moderation, although schools must convert all outcomes to match a national marking scale.
- New Zealand schools must have a documented internal moderation process to ensure reported results are consistent with the national standard. Each school has an annual submission date for external moderation. The submission date is confirmed early in the new year when schools are advised which standards have been selected for moderation.

Digital learning and assessment

All international jurisdictions studied are moving towards digitisation of learning and assessment. Appendix 3 provides an at a glance overview of digitisation of assessments in each of the jurisdictions.

Learning

Many of the jurisdictions studied have made extensive use of digital platforms to support learning and raise attainment. Estonia has been a well-known high-attaining jurisdiction, with more than 85 percent of all schools using the online platform eKool to share learning, homework and other daily tasks for learners. However, the data show that attainment in Mathematics fell following the COVID-19 pandemic (OECD, 2023). Nonetheless, Estonia experienced a smaller decline than Scotland, and remains well ahead of all other jurisdictions studied.

Estonia's strong e-provision of public services, including eKool, appears to have offered a particular advantage. Estonian schools shifted to distance learning quickly during the pandemic as this system was already in place with many schools already scheduling 'digital days' to ensure teachers and learners began to integrate online learning into their regular school days.

NSW, which also has a strong online presence, saw a slight improvement in mathematics performance, bucking the trend seen in most jurisdictions (OECD, 2023).

Digital assessment

In NSW, BC and New Zealand, all basic graduation tests and requirements for literacy and numeracy can be taken online and have a degree of flexibility as to when they are taken.

In Estonia the situation is unclear, but exams take place on a single day, just as in most UK systems. However, Estonia has introduced computer-based diagnostic tests to give teachers immediate feedback on how learners are progressing. This move to digital frees up teacher time (some marking will be automated) and gives teachers access to information for formative purposes.

Resilience

A further area for consideration around digitisation is resilience. At first glance, it might appear that a modularised system could avoid many of the difficulties experienced in the UK by internal assessment data. However, digital learning and support may be a key aspect: systems in NSW feature a near 50-50 balance between internal and external assessment, but also has strengths in digital supports. NSW's Up2Now programme recognises a range of wider achievements inside and outside of school. Additional online support is available for teachers in remote and rural schools to support standardisation (NESA, 2024).

Moderation

External moderation also makes use of online systems to facilitate evidence-gathering. NSW monitors grade patterns by comparing them to other available data about the performance of learners at their school, via NESA's School Online monitor (NESA, 2024). BC offers fully online school provision for those who need it. Scotland has some online provision, but it is far from universal, and many of our exams remain non-digital (BC Government, 2024).

Conclusion

The history of Scottish National Qualifications demonstrates that modularisation has been a recurring feature of qualification reform for over four decades. Across Standard Grade, Higher Still and the early CfE National Courses, modular structures were introduced to increase flexibility, widen participation, support progression, and recognise achievement through smaller components of learning. These approaches often provided learners with multiple routes through qualifications and enabled a broader range of skills and achievements to be recognised.

However, the Scottish experience also highlights a number of challenges associated with modular systems. While Higher Still created a unified framework that improved progression opportunities and sought to establish parity between academic and vocational learning, it became associated with high levels of internal assessment, fragmented learning experiences, and significant workload pressures. Similarly, the unitised CfE National Courses sought to address these issues through broader outcomes, more holistic assessment and greater professional judgement, but concerns remained regarding assessment burden, verification processes, re-assessment practices and the clarity of standards. These challenges ultimately

contributed to the removal of mandatory units from National 5, Higher and Advanced Higher courses in 2017.

At the same time, modularisation has continued to play an important role in other parts of the Scottish qualifications landscape, including NPAs, Skills for Work courses and the NextGen:HN qualifications. In particular, the NextGen:HN model demonstrates how larger, more integrated units, holistic assessment approaches and greater flexibility in combining evidence can help mitigate some of the challenges associated with earlier modular systems.

The international evidence suggests that modular qualifications remain common across a range of high-performing education systems. Jurisdictions such as New South Wales, British Columbia, Estonia, New Zealand and Wales combine modular structures with varying balances of internal and external assessment. Common features include clearly defined progression pathways, extensive curricular guidance, robust quality assurance arrangements, and increasing use of digital assessment and support systems. Importantly, these systems tend to place strong emphasis on managing assessment volume and ensuring that internal assessment supports learning rather than driving excessive workload.

Taken together, the evidence suggests that the success of any future modular approach is likely to depend on the design of the wider qualification system. Key considerations include the size and structure of modules, the balance between internal and external assessment, the clarity of standards and progression pathways, the effectiveness of quality assurance arrangements, and the extent to which digital systems can support delivery, assessment and moderation. The Scottish and international evidence therefore provides valuable lessons for future qualification reform, while highlighting that no single model of modularisation offers a complete solution in isolation.

References

- BC Government. (n.d.) *BC's Curriculum*. Available at: <https://curriculum.gov.bc.ca/curriculum>.
- BC Government. (2023a) *Graduation Assessments*. Available at <https://www2.gov.bc.ca/gov/content/education-training/k-12/administration/program-management/assessment/graduation>.
- BC Government. (2023b) *Curriculum Redesign*. Available at: <https://curriculum.gov.bc.ca/rethinking-curriculum>.
- BC Government. (2024) *Certificates of graduation*. Available at: <https://www2.gov.bc.ca/gov/content/education-training/k-12/support/graduation#dogwood>.
- Ekool. (2024) *eKool educational platform*. Available at: <https://www.ekool.eu/en/home>.
- Erss, M. (2023) *Curriculum Development in Estonia: 30 Years in the Crosswinds of Europeanization and Globalization*. In: Trifonas, P.P., Jagger, S. (eds) *Handbook of Curriculum Theory and Research*. Springer International Handbooks of Education. Springer, Cham. https://doi.org/10.1007/978-3-030-82976-6_51-1.
- Erss, M. & Kalmus, V. (2018) *Discourses of teacher autonomy and the role of teachers in Estonian, Finnish and Bavarian teachers' newspapers in 1991–2010*, *Teaching and Teacher Education*, Volume 76, pp. 95–105. <https://doi.org/10.1016/j.tate.2018.08.003>.
- European Commission. (2023) *Estonia upper secondary and post-secondary non-tertiary education: Assessment in general upper secondary education*. Available at: <https://eurydice.eacea.ec.europa.eu/national-education-systems/estonia/assessment-general-upper-secondary-education>.
- Hodgson, A., Howieson, C., Raffe, D., Spours, K. and Tinklin, T. (2004) *Post-16 curriculum and qualifications reform in England and Scotland: Lessons from home international comparisons*, *Journal of Education and Work*, 17(4), pp. 1–25.
- Ministry of Education and Research. (2014a) *National curriculum for upper secondary schools*. Republic of Estonia. Available at: https://www.hm.ee/sites/default/files/documents/2022-10/est_upper_secondary_nat_cur_2014_general_part_final.pdf.
- Ministry of Education and Research. (2014b) *National Curricula for basic and upper secondary schools*. Available at: <https://www.hm.ee/en/national-curricula>.
- Ministry of Education and Research. (2022a) *Vocational education*. Republic of Estonia. Available at: <https://eurydice.eacea.ec.europa.eu/euryperia/estonia/assessment-general-upper-secondary-education>.

Ministry of Education and Research. (2022b) *National curricula: National curricula for basic and upper secondary schools*. Republic of Estonia. Available at: https://www.hm.ee/en/national-curricula?view_instance=1¤t_page=1.

NSW Education Standards Authority (NESA). (2018) *Assessment in Practice*. Available at: <https://educationstandards.nsw.edu.au/wps/wcm/connect/90ba4628-9d99-4612-8244-75a8f775bc17/stage-6-assessment-in-practice.pdf?MOD=AJPERES&CVID=>.

NSW Education Standards Authority (NESA). (2022) *School-based assessment in New South Wales* [Online]. Available at: <https://arc.nesa.nsw.edu.au/>.

NSW Education Standards Authority. (2024) *NESA: Welcome to up2now*. Available at: <https://www.up2now.net.au/people/login>.

NSW Government. (2015) *The HSC in a nutshell*. Available at: https://www.boardofstudies.nsw.edu.au/hsc/hsc_in_nutshell.php.

NSW Government. (2019) *Study of preliminary and HSC courses: Units of study and indicative time*.

NSW Government. (2022a) *Self-tuition, external providers or outside tutor*. Available at: <https://curriculum.nsw.edu.au/ace-rules/ace13/external-provider>.

NSW Government. (2022b) *Courses*. Available at: <https://ace.nesa.nsw.edu.au/higher-school-certificate/courses>.

NSW Government. (2024) *Education and training*. Available at: <https://www.nsw.gov.au/education-and-training>.

NZ Ministry of Education. (2023) *New Zealand Curriculum*. Available at: newzealandcurriculum.tahurangi.education.govt.nz/new-zealand-curriculum-online/progress-and-achievement/assessment-tools-and-resources/5637144671.c.

NZQA. (2023a) *Choosing a course or subjects at school*. Available at: <https://www2.nzqa.govt.nz/ncea/understanding-secondary-quals/choosing-a-course/>.

NZQA. (2023b) *Applying to study in the UK*. Available at: <https://www2.nzqa.govt.nz/international/nz-quals-overseas/study-with-ncea/uk/>.

NZQA. (2024a) *Literacy and numeracy*. Available at: <https://www2.nzqa.govt.nz/ncea/subjects/litnum/>.

NZQA. (2024b) *Class 1 driver licence*. Available at: <https://www2.nzqa.govt.nz/ncea/subjects/select-subject/driver-licence/>.

Qualifications Wales. (2024) *Made-for-Wales GCSE decisions*. Available at: <https://qualifications.wales/regulation-reform/reforming/qualified-for-the-future/made-for-wales-gcses/>.

OECD. (2021) Scotland's Curriculum for Excellence. Available at: <https://www.oecd.org/education/scotland-s-curriculum-for-excellence-bf624417-en.htm>.

OECD. (2022) *PISA Results (Volume 1) The State of Learning and Equity in Education*. Available at: https://www.oecd.org/en/publications/pisa-2022-results-volume-i_53f23881-en.html.

OECD. (2023) *PISA 2022 results: Estonia*. Available at: <https://www.oecd.org/publication/pisa-2022-results/country-notes/estonia-dafed886/>.

Raffe, D., Howieson, C. and Tinklin, T. (2007) 'The impact of a unified curriculum and qualifications system: The Higher Still reform of post-16 education in Scotland', *British Educational Research Journal*, 33(4), pp. 479–508.

Scott, D. (2015) The Governance of Curriculum for Excellence in Scottish Secondary Schools: Structural Divergence, Curricular Distortion and Reduced Attainment. Written submission to the OECD Review of Curriculum for Excellence. Available at: https://www.academia.edu/20171586/OECD_Evidence_Paper_2015.

Scottish Government. (2016) *Assessment and National Qualifications Working Group, Assessment Overload*. Available at: <https://www.gov.scot/binaries/content/documents/govscot/publications/minutes/2018/09/teacher-panel-meeting-minutes-october-2016/documents/paper-2---assessment-and-national-qualifications-working-group---assessment-overload/paper-2---assessment-and-national-qualifications-working-group---assessment-overload/govscot%3Adocument>.

Scottish Government. (2022) *Putting Learners at the Centre: Towards a Future Vision for Scottish Education*. Available at: <https://www.gov.scot/publications/putting-learners-centre-towards-future-vision-scottish-education/>.

Scottish Government. (2023a) *It's our future: Independent review of qualifications and assessment*. Available at: <https://www.gov.scot/publications/future-report-independent-review-qualifications-assessment/>.

Scottish Government. (2023b) *All Learners in Scotland Matter – National discussion on education: final report*. Available at: <https://www.gov.scot/publications/learners-scotland-matter-national-discussion-education-final-report/>.

Shapira, M. and Priestley, M. (2018) 'Narrowing the curriculum? Contemporary trends in provision and attainment in the Scottish curriculum', *Scottish Educational Review*, 50(1), pp. 75–107.

Sliwka, A. and Spencer, E. (2005) 'Scotland: Developing a coherent assessment system', in *OECD Formative Assessment: Improving Learning in Secondary Classrooms*. Paris: OECD, pp.205–220.

SQA. (n.d.) *About Next Gen Qualifications*. Available at:

<https://www.sqa.org.uk/sqa/105607.11499.html>.

SQA. (2000, [1988]) *Standard Grade arrangements in physical education*. Available at:

<https://www.sqa.org.uk/files/nq/physical%20education.pdf>.

SQA. (2008) *National qualifications: A short story*. Available at:

https://www.sqa.org.uk/files_ccc/PNP_ResearchReport3_NationalQualificationsAShortHistory.pdf.

SQA. (2010) *Internal Unit Assessment in National Courses: Report of the SQA Task Group*. Glasgow: Scottish Qualifications Authority.

SQA. (2012) *History of Fallbacks Discussion Paper* [unpublished research] Glasgow: SQA.

SQA. (2014) *Fallback Discussion Paper* [unpublished research] Glasgow: SQA.

SQA. (2016) *Research and evidence report: Internal unit assessment in national courses*.

Available at: https://www.sqa.org.uk/sqa/files_ccc/SQA_Internal_Unit_Assessment_Report.pdf.

SQA. (2021) *SQA information for OCED: Independent review of qualifications and assessment*.

Available at: https://www.sqa.org.uk/sqa/files_ccc/20210312-sqa-information-for-oecd.pdf.

SQA. (2023a) *A comparative study of internal assessment practices in selected high-performing jurisdictions*. Available at: https://www.sqa.org.uk/sqa/files_ccc/Internal-assessment-comparative-study.pdf.

SQA. (2023b) *Modularisation and equalities: Context and evidence*. [unpublished research] Glasgow: SQA.

Winston Churchill Memorial Trust. (2014) *Increasing Achievement in Science Education: Learning Lessons from Finland & Estonia*. Available at:

https://media.churchillfellowship.org/documents/McIntyre_N_Report_2014_Final.pdf.

WJEC. (2024) *WJEC*. Available at: <https://www.wjec.co.uk/>.

Appendix 1: Jurisdiction comparisons

Structures and content by jurisdiction

	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Overall qualification title/awarding body	The HSC is overseen by the NESA.	British Columbia Certificate of Graduation awarded by the Government of British Columbia.	School Leaving Cert. + State Examination Cert. Managed by Estonian Ministry of Education and Research.	NCEA . Awarded by New Zealand Qualifications Authority (NZQA).	Qualifications Wales is developing new GCSE/VCSE courses. These are studied in years 10–11), with AS and A levels sat in years 12–13. The Welsh Joint Education Committee or WJEC sets and marks exams in Wales.
Duration of senior phase study	2 years.	3 years.	3 years.	3 years.	2(GCSE) +2 (A-level).
No. of levels within qualification	n/a.	n/a- cumulative accumulation of credits over 3 years.	n/a though some courses offer a variety of pathways.	Three.	Two.
Compulsory components	The HSC minimum standard requires Level 3 or 4 in short online reading, writing and numeracy tests .2 credits HSC	3 online graduation tests. 4 credits with an indigenous focus. 16 credits at Grade 12, inc. Lang. Arts 12	Organised by curricular area – See General Provisions.	10 mandatory credits in each of literacy and mathematics, taken in either English or Māori.	Mathematics, Science and English are usually mandatory at GCSE.

	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
	level (6) English also required. 12 preliminary and 10 HSC courses (2 credits each).	and Career Life Connections. 28 elective and 52 credits specified by curricular area.			
Total credits/modules	44 over 2 years.	80 credits total.	96 modules in total.	60 per level.	Varies across subjects, centres and learners.
Credit for outside learning	Limited.	Yes. Many achievements can be recognised if key criteria are met.	Yes – within internal assessment processes.	Yes. For example Class 1 NZ learner driver licence gives 2 Level 2 credits.	n/a.

Notional learning hours by jurisdiction

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Number of units/modules	6 (or 7) N5 and 5 Higher courses 24 SCQF credits each ⁶	44 over 2 years ⁷	80 credits divided into courses of 4 credits	96 (72 in part-time schools)	60 per level (up to 180 across 3 years)	Varies across subjects, centres and learners
Notional learning hours (unit/credit)	n/a	60 hours	25–30 hours	35 hours	10 hours	Varies, but usually a subdivision of overall course
Notional learning hours (course)	240 hours	120 hours	100–120 hours	n/a	10 credit courses = 100 hours	120–140 for single courses; double award courses are credited with 240–280 guided learning hours
Notional learning hours (across years of senior phase)	Varies depending on course choices	44 x 60 = 2640 hours	2000–2400 hours	35 x 96 = 3,360 hours	600 hours (year) / 1800 hours (3 years)	1 GCSE or VCSE = 120 = 140 guided learning hours
Duration of senior phase course (years)	3x1	2 years 1x preliminary 1xHSC	3 years	3	3	2 years (GCSE) + 2 years (A-level)
Notional learning hours per year	1680–1200 (1260–900) ⁸	1,320	667–800	1,120	600	1 GCSE or VCSE = 120–140 guided learning hours

⁶ 6 N5 courses is presently common, with some schools moving back towards 7 in response to concerns about curricular narrowing.

⁷ 12 courses (2 units each) in year 1

10 courses (2 units each) in year 2 = 44

⁸ N5: 7 courses x 240 = 1680 (1,260 guided) 6 courses x 240 = 1,440 (1080)

Higher: 5 x 240 = 1200 (900)

Appendix 2: Assessment approaches across jurisdictions

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Subject specifications	Qualifications Scotland Qualifications .	2 forms of specification are used: NESA Board Developed, and NESA Board Endorsed.	BC Curricula (all years – see 10–12) .	National Curricula Upper Secondary .	NCEA Subjects .	New Qualifications .
Internal Assessment	Not used in National Courses after National 4.	Schools run an assessment programme for each HSC course, following NESA's requirements but with significant autonomy . Assessment is standards-referenced. It uses syllabus outcomes as key reference points for decisions about students' progress and achievement.	The provincial government provides resources for 4 methods , performance and portfolio assessment, learner-centred conferences and self-assessment. For Provincial Assessments, one exam in each subject can be sat per session .	Formative and summative , objectives set out in General Provisions section 5. Internal assessment is used even for areas with an additional external exam.	For unit standards and some achievement standards. Assessments can take a variety of forms .	Under development. Expected to be no more than 60% of course.

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
External Assessment	Assessment methods are external for NQs beyond National 4.	External final exam for all HSC Board Developed Courses. NESA sets, conducts, and marks. VET frameworks courses have an optional HSC exam. Most courses have written exams, but some also have practical or performance exams.	Three graduation assessments: Literacy and numeracy (grade 10) and literacy (grade 12) and are taken online. Online support materials are available.	Written exam in three State examinations Estonian, Language 2 and mathematics are compulsory Some other subjects have optional exams.	External assessment is by exam, formal report, or portfolio .	Under development. Final exam to contribute no less than 40% of mark.
Balance of Internal vs. External	Internal National 1 to National 4. External National 5 to Advanced Higher. All work-based courses available for delivery in schools are internally assessed.	Approx.50/50 with subject variation.	Primarily internal.	High trust in teacher judgement with majority of assessment done internally.	Varies by subject but no more than three standards can be externally assessed per course.	Under development.

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Permitted methods	The Guide to Assessment lists 14 permitted methods. 12 of which are currently in use in National Course assessments. However, written (non-digital) exams make up a considerable proportion of assessment. In previously unitised qualifications, overuse of written unit tests was also an issue.	Internal Assessment tasks include tests, written assignments, practical activities, fieldwork, and projects. External assessments constitute the other 50% and are set and marked by the Board of Studies NSW. Methods include written papers (increasingly online), speaking and listening exams, practical exams or coursework submitted for external marking.	The provincial government provides resources for 4 methods .	External equates to written exam. Internal is teacher-determined, but is expected to be appropriate, relevant, with formative as well as summative approaches encouraged.	Internal – wide ranging External: exams, portfolios, formal reports.	Reforms have encompassed changes to assessment. This includes increased use of non-exam assessment (NEA) and increased use of digitisation. Some qualifications are modular, while some are linear, depending on the subject studied.

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Supports for Assessment	Guide to Assessment , Understanding Standards and Prior Verification .	Online marking simulations and online hub . External moderation also makes use of online systems.	BC Curriculum provides detailed support. Supported by performance standard exemplifications and documentation on principles of quality assessment .	Exceptionally detailed curricula and General Provisions documentation. eKool facilitates tracking and feedback.	NZQA: detailed supports and exemplification for all subjects and individual standards. Curricular: Assessment Online Resource .	Dedicated Supports for Assessment page provides advice for centres, practitioners, learners and parents.
Curricular documentation	There is no senior phase curriculum. SQA course specifications outline the assessment requirements for each course.	Curricular guides	BC Curriculum and Government guidance . Graduation Policy Guide .	National curricula basic and upper secondary .	Extensive, including through NZ Curriculum Online .	Provided through Hwb .
Standards documentation / support	Guide to Assessment , Understanding Standards and Prior Verification .	Resources for teachers .	Framework for Enhancing Student Learning (from 2020) and Policy for Student Success .	See above.	About assessment standards .	Led by Qualifications Wales .

Appendix 3: Digital technologies in education

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Online teaching / learning materials	For example National e-learning offer and e-sgoil – not universally available.	Extensive, including curricular guidance and documentation, Up2now programme and online schools .	Extensive. Digital assessment developed in partnership with Vretta . Graduation assessments taken online. Online Course Registry . State-provided online schools are available, allowing delivery of entire curriculum online.	World-leading digital strategy for education. eKool near-universally used.	Extensive. External assessment is increasingly online, as are moderation processes. Learning using digital technologies is widely used.	Further details forthcoming, but a greater degree of digitisation is planned for the new qualifications, including online assessment. There is some evidence that Wales is ahead of the rest of the UK in being ready for digital assessment.
Online assessment materials	Limited.	Yes.	Yes.	Yes.	Yes.	Stakeholders have agreed a joint position . Not all subjects employ digital assessment. Rollout will take place from 2026 onwards for those subjects which are using digital assessment.

	Scotland	NSW (Australia)	BC (Canada)	Estonia	New Zealand	Wales
Online moderation processes?	No.	Yes.	Yes.	Some automatic grading of online exams has recently been introduced.	Yes.	IAMIS is used for digital upload of some internal components for moderation – the moderation sample is determined by IAMIS.
Online support for assessment development	Yes.	Yes – simulated marking.	Yes.	Estonia has a highly-digitised education system including a national platform – eKool .	Yes – example Assessment Online Resource .	Both Hwb and IAMIS can contribute to assessment support.