

Executive summary

The technical form of curriculum specifications for subjects and modules in a redeveloped senior cycle.

Introduction

The purpose of this paper is to examine relevant research and practice to help decide what format (a.k.a. technical form) NCCA should use when designing curriculum specifications for senior cycle. This paper provided the research basis for the creation of a template to be used by development groups as they review and (re)develop senior cycle subjects and modules. Development groups provided feedback during the development process to help refine the template.

The paper includes five chapters covering:

- 1. curriculum theory
- 2. a history of the technical form of syllabi/specifications in Ireland
- 3. comparisons with the technical form used in a range of jurisdictions internationally
- 4. research and teacher feedback on the technical form of existing Leaving Certificate specifications and
- 5. key competencies in a redeveloped senior cycle.

The paper is structured in this way to respond to Luke, Weir and Woods observation (p9, 2013) that curriculum bodies make decisions about the technical form of their documents based on

- research on the *technical form* of curriculum syllabi/specifications (chapters 1 and 4)
- precedent, existing practice and previous syllabi (chapters 2 and 3)
- analysis of practice in other jurisdictions (chapter 3)
- teacher feedback on the formats they find useful (chapters 4 and 5).

In this paper, the term 'technical form' refers to how national curriculum specification documents for subjects and modules are organised. It includes the categories used and the layout of the documents, under specific headings. It also includes the approach taken within each section of these documents, as the heading alone does not provide insight into how each section is or should be approached and why a particular approach may be considered the most appropriate. Stephen Petrina (2004) argues that the technical form of a curriculum is concerned with how it should be organised (the realpolitik of form) rather than with what should be learned (the politics of knowledge, skills and values/dispositions), or with who should learn what (identity politics), though clearly decisions about the format/technical form intersect with questions relating to the position of knowledge, skills, values and dispositions in the curriculum.

Chapter 1: curriculum theories

Understandings of curriculum have changed and evolved over time, as curriculum became a field of study in its own right. Much of the focus of curriculum theory has been on what should be

learned and on who should learn what. There has been less focus on how a curriculum should be organised a.k.a. its 'technical form'. Hilda Taba in 1962 proposed that instead of arguing for the primacy of subject content, skills, the needs of learners or the needs of society, a curriculum should find a way to combine them in a comprehensive and coherent way. This idea of combining different elements in a curriculum document is reflected in many curriculum syllabi/specifications both nationally and internationally, as illustrated in chapter 3. While research may separate out and label various approaches towards organising a curriculum (see table 1), in practice, elements of each of these ideologies/orientations/models often co-exist within curricular documents (see chapter 3) rather than one taking precedence over all others.

3 Curriculum ideologies Kelly (1977/2009)	5 Curriculum orientations Petrina (2004)	5 Curriculum models Luke, Weir and Woods (2013)
Curriculum as content and education as transmission	Academic rationalism	Traditional content based
Curriculum as product and education as instrumental	Cognitive processes	Outcomes based
Curriculum as process and education as development	Self-actualisation	Process-based, developmental
	Social reconstruction / critical pedagogy	Critical theory based
	Utilitarian	Generic skills based

Table 1: Curriculum orientations and models (Kelly 1977/209; Petrina 2004; Luke, Weir, Woods2013).

When a curriculum template is being populated, those involved can approach the task from a range of curriculum traditions, as outlined in Table 2 below. The individuals within the development groups who design curriculum specifications; the stakeholders who review and provide feedback on these specifications and on the wider senior cycle curriculum in its entirety; and those who participate in public consultations on phases of education and on draft specifications, likely have varying orientation(s) towards and beliefs about curriculum, curriculum development and curriculum making. This inevitably presents challenges when designing a national curriculum document but also potentially enriches the process, as diverse perspectives are considered and feed into the draft and final versions of specifications. The tradition which best describes the process used by NCCA is the deliberative tradition.

4 curriculum traditions Reid (2006)	
Systemic	Seeks an approach which works in all contexts and with all subjects
Existentialist	Focuses on the experiences and autobiography of learners
Radical	Critiques and rejects the institutions of curriculum and schooling
Deliberative	Recognises the value of the other traditions and deliberates to achieve
	consensus
Table 2: Curriculum traditions (Paid 2006)	

 Table 2: Curriculum traditions (Reid, 2006)

Luke, Weir and Woods (2013) – process	Alvunger et al (2021) – features of good quality curriculum-making
 a review of current specifications and best practice in the field 	Participatory
2. participatory curriculum-making to write the official document	Accountability based on trust
3. a process of trial, feedback and revision	Importance of middle-ground and mobility
	Balanced regulation – sufficient guidance as well as room for dialogue
	Agency in the education system

There are many different ways to describe the processes used to create a specification (table 3).

Table 3: Processes and features of curriculum development and curriculum making.

Taking into account the diversity of perspectives and beliefs about curriculum which exist, Luke, Weir and Woods (2013) propose a hybrid approach to the technical form of curriculum specifications. They reject the alternative, that of using just one model, which all teachers are then expected to adopt irrespective of their values and beliefs, because this would, by design, alienate at least some of the teachers who will be using the curriculum specification to inform their teaching, and student learning and assessment. However, it is understandable that in cases where individual teacher's beliefs about curriculum and education fall firmly into one ideology, orientation or model (see table 1, pg. 2), these teachers may find a hybrid approach challenging.

It is noteworthy that Luke, Weir and Woods recommend a hybrid approach, as Gleeson (2021) argues that Ireland has two distinct curriculum cultures at work (see table 4 below), namely an Anglo-Saxon/American curriculum culture and a Didaktik curriculum culture, whose interplay has already led to a hybrid curriculum culture in Ireland.

Anglo-Saxon/American curriculum culture	Didaktik curriculum culture	
Focus on subjects	Focus on student formation and wellbeing	
Emphasis on skills	Emphasis on autonomy in learning	
Detailed learning outcomes	Flexible and adaptable learning	
Purpose of education is developing human capital to enhance employability and economy	Purpose of education is coming to be more fully yourself and participating in society	
Knowledge is value-free, same for everybody	Knowledge is never neutral or value-free	
Table 4: Processes and features of Anglo-Saxon/American and Didaktik curriculum cultures		

The most appropriate organisation or technical form of curriculum specifications in a redeveloped senior cycle will thus likely be a hybrid one. Before considering this in more detail, it is important to establish how the technical form of curriculum syllabi/specifications for senior cycle subjects/modules have evolved over time and this is the focus of chapter 2.

Chapter 2: Curriculum syllabi/specifications in Ireland 1920 -2010

This chapter traces the evolution of the technical form of curriculum syllabi/specifications at senior cycle over several decades. The Department of Education's *Rules and Programme for Secondary Schools* served from the 1920s to the 1980s as a curriculum document for the entire Leaving Certificate programme, setting out syllabus and assessment arrangements for each subject. Curriculum syllabi in this era were extremely short, averaging 4 pages, and consisted of little more than broad indicators of subject content and information about final examinations.

During the 1980s and beyond, the Curriculum and Examinations Board (CEB) and latterly the National Council for Curriculum and Assessment (NCCA), moved thinking about curriculum beyond what might be termed substantive subject knowledge or content. Curriculum became a more prominent field of study nationally and internationally, and the technical form became more sophisticated, with rationale, aims and objectives for subjects enunciated in more detail, and the articulation of outcomes for students also becoming increasingly evident. In the 1990s and into the early 2000s, discrete syllabus documents were published for each subject/module, supported by teaching guidelines that offered guidance in pedagogical and assessment approaches. The range of subjects on offer in schools expanded; different programmes were designed, reflective of broader societal changes; and the approach to the technical form of curriculum syllabi/specifications evolved further. An increased focus on learning outcomes and key skills across senior cycle is evident. The technical form embraced variations to support the Leaving Certificate Vocational Programme and the Leaving Certificate Applied. Assessment included greater variation in modes of assessment that, in many but not all subjects, moved beyond terminal examinations as the sole source of assessment for certification.

A common technical form and template across senior cycle emerged after 2010. This template aimed to support increased curriculum coherence and resonances across subjects and curriculum components. The learning outcomes model as a means of articulating what students should know, understand or be able to do following their study of a subject or module was adopted, framed within the broader learning goals of the programme with which they are engaged. This brief survey of historical developments provides a useful context for considering the technical form of curriculum syllabi/specifications in the following chapters of this paper.

Chapter 3: comparing specifications in Ireland and other jurisdictions

Comparing curriculum specifications from other jurisdictions with recently developed senior cycle specifications can provide policy learning relevant to decisions about what format (a.k.a. technical form) NCCA might use for senior cycle curriculum specifications. A number of conclusions can be drawn from analysis of specifications from New Zealand; Ontario (Canada); Queensland (Australia); Scotland and Wales, though jurisdictions not explored in this paper may take different approaches.

- The technical form of the curriculum is influenced by the context in which it is developed, such as the jurisdiction's educational history, culture and traditions; the balance between internal and external assessment; the remit of the agency that develops it etc.
- The technical form of curriculum specifications across jurisdictions have become more uniform over time, particularly in the last 10-15 years.

- Internationally, in the jurisdictions studied, there remains scope for differences between specifications depending on the subject or module in question.
- A greater level of scaffolding of learning outcomes is evident in most other jurisdictions, particularly where either internal assessment or a combination of internal and external assessment exist. This scaffolding varies greatly from jurisdiction to jurisdiction and subject to subject; sometimes it takes the form of sample questions, issues, problems, prompts or examples (in the case of Ontario) or suggested classroom experiences/ activities in the case of Scotland. In Wales, amplifications are provided, although this is only in certain subjects, such as Business Studies, while in Queensland some specifications, such as Biology, include a guidance column which runs alongside the column which details the learning outcomes.
- The detail provided to scaffold learning outcomes tends to be tailored to the subject in question and is often influenced by whether or not the learning will be assessed internally or externally. For example, where sample prompts, problems and questions are provided, this is usually intended to support school-based assessment and is not indicative of what might be asked in an external assessment. Where samples issues and examples are provided, these are intended to support and scaffold understanding of the intended learning, rather than restrict. In Ontario specifications, for example, it states that 'Both the examples and the teacher prompts are intended as suggestions for teachers rather than as an exhaustive or a mandatory list. Teachers can choose to use the examples and prompts that are appropriate for their classrooms, or they may develop their own approaches that reflect a similar level of complexity. Whatever the specific ways in which the requirements outlined in the expectations are implemented in the classroom, they must, wherever possible, be inclusive and reflect the diversity of the student population...'
- It is also important to note a clear trend evident in the jurisdictions studied, namely that scaffolding of learning outcomes appears to be designed to support teacher planning and internal school-based assessment and is not intended to be indicative of what might be asked or how questions might be framed in external written examinations.
- While this paper has considered current approaches to scaffolding learning outcomes used in each of the jurisdictions explored, it is worth noting that Scotland and Wales are both currently reviewing their curricular approach.
- The extent to which pedagogies are included in curriculum specifications and/or guidelines and the level of detail they provide varies hugely from jurisdiction to jurisdiction and from subject to subject.
- There is an emerging sense that additional support is required for enactment, particularly where school-based summative assessment exists. Further and ongoing consultation with teachers will help to establish the most appropriate supports for a redeveloped senior cycle.
- It is not always clear who the target audience for curriculum specifications is intended to be. The language used sometimes suggests that teachers are the intended audience, while in others the target audience seems to be all stakeholders.
- While there is no uniform approach across jurisdictions to the technical form of curriculum specifications, there are common features which include:
 - $\circ \quad \text{an introduction and/or rationale} \\$
 - o aims and objectives
 - key skills or core competencies

- o recognition of diversity among learners
- \circ a section on teaching and learning/ pedagogy
- o strands of study
- o learning outcomes (scaffolded in a range of different ways)
- o approaches to assessment
- o description of achievement standards
- a glossary of key terms and definitions.

In many ways this is similar, with some exceptions, to the hybrid approach to the technical form of curriculum specifications proposed by Luke, Woods and Weir, as outlined in chapter 1. Based on the review of jurisdictions, it is suggested that the area most in need of further development is the scaffolding of learning outcomes in specifications and/or in additional supports. Other jurisdictions have taken a number of approaches to this. Of the approaches explored in this paper, three options to consider when deciding on the template for senior cycle curriculum specifications in Ireland include the use of:

- 1. overall strand expectations which clarify the learning, and detail what students will demonstrate as a result of engaging with the learning in that strand.
- **2.** sample issues or examples or prompts (where appropriate), developed for the Irish context.
- **3.** a 'students learn about' column which provides significantly more detail than the column included in more recent specifications (2018 2021) would provide greater scaffolding of learning outcomes.

Several development groups 'road tested' these three options/approaches to scaffolding learning outcomes during 2023. Overall strand expectations were drafted but development group feedback was that this negatively impacted on the integration of the strands and the relevance of cross-cutting themes, which are a design feature of many NCCA specifications. These development groups expressed concern that adopting 'overall strand expectations' could contribute to the fragmentation of learning. Sample issues, examples or prompts were also considered but feedback from development groups was that these should not be included in specifications as they could quickly become dated and irrelevant and could restrict opportunities to explore issues relevant to a local or national context.

A clear preference emerged from these groups for the scaffolding of learning outcomes within specifications to take place by adding more detail to the 'students learn about' column in specifications, as applicable and suitable to the subject or module in question. During the course of their work, these development groups suggested that it would be helpful to identify cases where a specific learning outcome or group of learning outcomes may prove challenging and, in these cases, a one-page elaboration of the learning outcome(s) in question can be provided as a support for enactment of the specification. The scaffolding of learning outcomes needs to be approached carefully and with judicious application, as appropriate to nature of the subject, module or strand in question, and with a view to achieving clarity without over-elaboration can have a range of detrimental effects on student learning. Feedback from these development groups indicated that, on-balance, it could be unhelpful to include more than one way of scaffolding learning outcomes within specifications, as it could reduce clarity and could lead to confusion or a spiral of specification.

Looking more broadly at supports for enactment across these jurisdictions, it is clear that supports provided in Ireland are broadly similar to those provided in Ontario and Queensland, though jurisdictions which have internal assessment components tend to provide more assessment materials to support teacher judgements about the quality of student learning. Ireland has a dedicated support service for teachers, Oide, a feature which does not appear to be in place in the other jurisdictions studied. Further and ongoing consultation with teachers will provide further insights into the most appropriate supports for a redeveloped senior cycle.

Chapter 4 research and teacher feedback on existing specifications

This chapter explores research relating to the use of Learning Outcomes (Priestley, 2019) in curriculum specifications and reviews recent feedback from teachers on draft Leaving Certificate subject/module specifications. The following conclusions were drawn:

- Curriculum coherence in a broad sense is crucial in successful educational change. Alignment within all sections of curriculum specifications (horizontal coherence) needs to extend right across the education system to pedagogy, inspections, continuing professional development and initial teacher education (vertical coherence).
- Feedback from teachers suggests that clarity and coherence within the technical form of a specification is very important.
- Feedback gathered through consultation on draft specifications and early enactment suggests that several sections of a specification can contribute to clarity and coherence.
 - The Rationale and Aims can give clarity on the nature and importance of the subject.
 - The **Strands of study** section can help to set out how knowledge is classified in the specification; with a diagram capturing the interconnected nature of that knowledge.
 - A muti-modal approach to assessment can align well with the aims and rationale.
- Learning Outcomes can play an important role in achieving curricular coherence but they also present challenges, particularly in the initial years of a new specification, where uncertainty in relation to assessment can impact on teachers confidence and sense of self-efficacy.
- Adjusting to planning for teaching and learning using learning outcomes can be challenging.
- Scaffolding of learning outcomes, in a specification and/or in support materials, can enhance teachers learning and engagement with a new or revised curriculum specification and their confidence and sense of self-efficacy. Over-elaboration of learning outcomes can result in fragmentation, incoherence, de-professionalisation of teaching, less adaptation of learning to suit the needs of learners and arguably, less equitable outcomes for students. A balance must be struck between scaffolding on one hand and flexibility and choice on the other.
- Learning Outcomes in a redeveloped senior cycle should be scaffolded in a way that provides clarity about *what* learning to pursue; allows for curricular autonomy in *how* learning is to be pursued; and respects the professionalism of teachers to provide appropriate, relevant learning experiences for their students.

However, given the intense focus in Ireland on school leaving examinations and on what comes up in examinations, it is unlikely, irrespective of the level of scaffolding of learning outcomes provided in specifications and/or support materials, that tensions relating to assessment will be fully resolved by adopting a different approach to the technical form of curriculum specifications.

Chapter 5 key competencies in a redeveloped senior cycle

This chapter outlines research on key competencies (McGuinness, 2023) approaches to curriculum and explores how key competencies in a redeveloped senior cycle can build on the existing key skills of junior and senior cycle. The term 'competencies' reflects Senior Cycle Review feedback of a desire to place a greater emphasis on the integration of knowledge, skills, and values/dispositions and is consistent with recent developments nationally and internationally. It should be noted however, that if students are to see and learn from the connections they make across subjects, this must be explicit in teaching and learning across not just within subjects and modules.

The development of key competencies can be advantageous to students in a range of ways. It can build robust learning which stays with students beyond the school context in which it was acquired. It can help to make them more aware and prepare them for the complex challenges of the modern world and for an uncertain future, as well as giving them a voice and recognising their ability to participate meaningfully in society. It can help students to develop personal attributes other than intelligence which help them during and beyond school, as they transition to adult life.

However, there are also a number of challenges which arise when conceptualising and integrating key competencies into a curriculum. If students are to see and learn from connections across subjects, these interdisciplinary connections must be explicit in teaching and learning across subjects and modules, rather than confined to exclusive focus on how the competencies are developed in individual subjects, thus fragmenting student learning. Simply naming the competencies is inadequate. Teachers must be supported and given guidance in their understanding of the key competencies and their potential benefits to student learning, as well as seeing how they integrate within **and** span across subjects and modules.

In order to create a key competencies matrix for senior cycle, a range of comparative analyses were undertaken. Competencies matrices in 5 supranational educational agencies/organisations and across 8 international jurisdictions were analysed and compared. NCCA key themes/competencies/skills were analysed across 4 phases of education and a proposed key competencies matrix for a redeveloped senior cycle was created. Work was subsequently undertaken to utilise and adapt the proposed Key Competencies for Senior Cycle identified in McGuinness' research into a succinct list of competencies for use by development groups creating curriculum specifications. A key competencies document (NCCA, 2023), to replace the existing Senior Cycle Key Skills Framework (NCCA, 2009) has been published, for use by development groups, teachers, students and schools, as they enact a redeveloped senior cycle.

Conclusions and template overview

Given limited research into the *technical form* of curriculum syllabi/specifications, rather than the more extensive research literature devoted to questions related to the content, ideologies and orientations of curriculum documentation (see chapter 1), it is understandable why curriculum agencies use a combination of precedent, existing syllabi/specifications, learning from other

jurisdictions, and feedback from teachers when deciding what technical form their curriculum syllabus/specification documents should take. This paper explores each of these factors while situating them within a theoretical, historical and cultural context. There is some clear learning for NCCA from this paper which is set out below.

Given the complexities of the various different ideologies, orientations, models and traditions of curriculum and the multiple purposes of senior cycle identified in feedback received during the Senior Cycle Review (2017 – 2020), it is proposed that the technical form of NCCA's specifications for subjects and modules in a redeveloped senior cycle should reflect a hybrid approach to curriculum design and should facilitate development groups and teachers to combine them in a comprehensive and coherent way. This approach is more inclusive of a range of teacher and stakeholder beliefs about curriculum; offers various 'ways in' to a new or revised specification and builds on existing practice in curriculum development and enactment in Ireland. The technical form template must lend itself to this hybrid approach but beyond this, the work of achieving a careful balance between the different traditions/models/orientations and ideologies takes place

- in the iterative process of creating a specification in the template, to achieve clarity and coherence without over-elaboration for teachers and other users of curriculum documents.
- in appropriately supported processes of enactment in schools, classrooms and other sites of learning.

A review of syllabi/specifications from upper secondary education in a range of other jurisdictions (chapter 3) indicates that there is no single approach internationally to the technical form of curriculum specifications, While similar trends are evident, there is variation in the language and headings used and in the approaches taken. Common features include:

- \circ an introduction and/or rationale.
- \circ aims and/or objectives.
- o key skills or core competencies
- recognition of diversity among learners.
- a section on teaching and learning, with some jurisdictions offering detailed advice on pedagogies and others offering a broad outline.
- strands of study.
- o learning outcomes and scaffolding for learning outcomes, in a range of different forms.
- approaches to assessment.
- description of achievement standards.
- o a glossary of key terms and definitions.

It is noteworthy that a greater level of scaffolding of strands of study and learning outcomes is evident in the curriculum syllabi/specifications of most other jurisdictions analysed in this paper compared to Ireland, particularly where either internal assessment or a combination of internal and external assessment exist. This scaffolding varies greatly from jurisdiction to jurisdiction and subject to subject. The aim appears to be achieving clarity without over-elaboration.

A very important aspect of the technical form of curriculum specifications is the issue of curricular coherence (chapter 4). Alignment between individual syllabi/specifications and the purpose, vision and guiding principles of a redeveloped senior cycle is very important. Internal alignment of all aspects of an individual syllabus/specification with each other is also crucial. Feedback from

teachers indicates that they are broadly supportive of many aspects of how NCCA specifications are currently designed but that planning for teaching, learning and assessment with learning outcomes remains challenging and that more scaffolding of learning outcomes is needed. This scaffolding, for better or worse, has the potential to

- enhance teachers' learning and engagement, confidence and self-efficacy.
- provide reassurance to teachers concerned that their interpretation of a new curriculum specification isn't the same as their colleagues, and/or who may worry that their students may not be adequately prepared for their examinations or have the capacity to apply their learning to unfamiliar problems or contexts.
- reduce the likelihood that textbooks and examination papers become the de facto curriculum for the subject or module in question, though given their current impact on practice, they would likely remain significant.
- result in fragmentation of learning and incoherence.
- contribute to the de-professionalisation of teaching.
- result in less adaptation of learning to suit the needs of learners and arguably, less equitable outcomes for students.

Thus, it is important that a balance is struck between scaffolding on one hand and flexibility and choice on the other. The design of learning outcomes must be consistent with the overall aspirations of the phase of education. For example, if the learning outcomes are extremely detailed and numerous such that they encourage box-ticking approaches to classroom-learning, they could negatively impact on the guiding principles of a redeveloped senior cycle, such as *Challenge, engagement and creativity* and *Wellbeing and relationships*. Achieving clarity, synthesis and adequate detail without over-elaboration is an ongoing challenge which will impact on curriculum development as development groups discuss, debate and decide what learning is of most importance in the subject or module in question and populate the template for the technical form of curriculum specifications in a redeveloped senior cycle. Given the intense focus in Ireland on school leaving examinations and on what comes up in examinations, it is unlikely, irrespective of the level of scaffolding of learning outcomes provided in specifications and/or support materials, that tensions relating to assessment will be fully resolved by adopting a different approach to the technical form of curriculum specifications in genericitations and/or support materials.

The technical form of curriculum specifications should reflect the integrated development of knowledge, skills and values/dispositions. The proposed approach to key competencies in a redeveloped senior cycle outlined in chapter 5 takes into account competencies (Primary) and skills (Junior Cycle) across phases of education, including the existing key skills of senior cycle and wider societal challenges and developments. Senior cycle key competencies represent this more integrated approach, replace the existing key skills of senior cycle and the vision of the learner, and are incorporated into the template for subject and module specifications.

The draft template outlined below was used when developing specifications for subjects and modules in a redeveloped senior cycle. It may need to be amended or adapted as appropriate to different subjects/modules and to support the introduction of more diverse pathways through senior cycle. The most significant changes from the current template are the inclusion of:

• Updated text in relation to the purpose/vision of senior cycle.

- 'Related learning' is renamed and focuses on 'Continuity and Progression'.
- Key competencies replace the existing key skills of senior cycle and vision of the learner.
- The 'students learn about' column will offer more detail and scaffold learning outcomes
- Additional assessment component(s) accompanied by descriptors of quality for the AAC
- A visual overview for students and parents may be included in specifications or provided as a support.

Further feedback on the template may arise during public consultations on draft specifications and this will be considered when finalising redeveloped senior cycle specifications.

Template section-by-section overview

Section	What it will contain
Senior cycle	This section is common to all specifications. It outlines the overarching purpose, vision and guiding principles of a redeveloped senior cycle, which emerges from the Senior Cycle Review Advisory Report (NCCA, 2021). This section contributes to curricular coherence and provides a touchstone for development groups as they create specifications.
Rationale	 This section is specific to each specification. The rationale outlines (a). the nature of the relevant subject/module. (b). the subject/module's role and importance in realising the purpose/vision of senior cycle i.e. how it contributes to students' intellectual, social and personal development. (c). establishes the subjects' importance in a larger context.
Aims	This section is specific to each specification. It broadly and succinctly outline the over-arching purpose of the specification, including a number of concrete bulleted aims.
Continuity and progression	 This section is specific to each specification. It succinctly outlines some of the ways the subject/module contributes to curricular continuity from junior cycle and progression from school to adult life and enriches future studies, work, careers, and participation in society.
Key competencies	This section introduces the key competencies of a redeveloped senior cycle. It includes a brief explanation and graphic of key competencies and provides a hyperlink to further key competencies material. Each specification then outlines some ways these competencies can be developed in the subject/module in question.
Teaching and learning	This section succinctly outlines some of a wide range of approaches to teaching, learning and assessment that teachers may find helpful when enacting this specification, and emphasises the importance of inclusive teaching practices. Supports in relation to pedagogies will be provided as part of continuing professional development.
Strands of study and learning outcomes	Introductory paragraph This section is specific to each specification. Introductory text outlines the overall approach to and structure of the subject/module, naming the strands, providing an overview graphic and a sentence re: time

	allocation. Information in relation to the design of learning outcomes for higher and ordinary level, as appropriate, is included here. Strand, learning outcomes and 'students learn about' sentences common to all specifications are included here. Strand X: Title Strand outline should include a brief outline of the essence of the strand.
	Stand X learning outcomes table The section contains a table with two columns. The right-hand column contains learning outcomes which outline the knowledge, skills, values and dispositions students should be able to demonstrate after a period of learning. They must be broad enough to allow all learners to achieve but specific enough that they can, for the most part, be measured and assessed.
	The left-hand column outlines specific areas that students must learn about. This column will provide more detail than is currently the case in recently published senior cycle curriculum specifications, scaffolding understanding of the learning outcomes without over-elaboration. Taken together, these provide clarity and coherence with the other sections of the specification.
	Learning outcomes should be numbered/labelled to support planning.
Assessment	Assessment This section begins with generic text about the purpose of assessment broadly in senior cycle.
	Assessment for certification It includes generic text re: assessment for certification, followed by a subject/module specific table presenting the assessment components and weightings for written examinations and additional assessment component(s).
	Additional assessment component: [insert name] A broad outline of the purpose and nature of the additional assessment component is included here. It may include a graphic, as appropriate.
	Descriptors of quality for additional assessment component(s) Brief text and a table outline a high, moderate and low level of achievement in the additional assessment component.

	Written examination Common text followed by subject/module-specific bullet points. Reasonable accommodations Common text re: RACE scheme included. Leaving Certificate grading
	The assessment section of the template may need to be adapted for redeveloped senior cycle modules.
Appendices	Appendices may include additional information relating to the senior cycle key competencies that are embedded in the learning outcomes of each subject and module. The appendices may also include a visual overview of key concepts/features of student learning in the subject/module. The audience for this visual is students and parents and its purpose is to support conversations about student learning in the subject/module in question.
	Additional appendices are specific to each specification. They may include a glossary of action verbs, a glossary of terms and other relevant material. Further appendices may be included as applicable to individual subjects/modules. These appendices scaffold a shared understanding of the language, verbs and terms used in the learning outcomes and the specification more widely.

Bibliographic information is included in the full paper 'The technical form of curriculum specifications for subjects and modules in a redeveloped Senior Cycle'.