

One Hundred Years of Curriculum-Making in Ireland: What Have We Learned in Science Education?

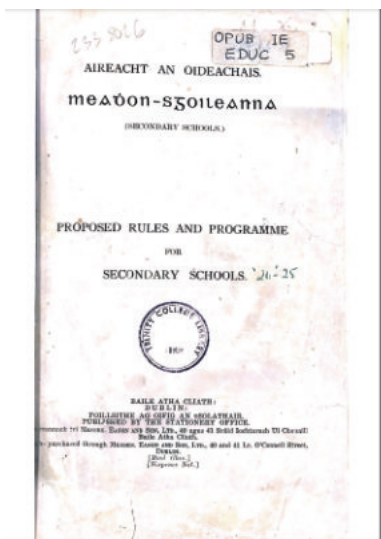


Figure 1: Proposed Rules and Programme for Secondary Schools (Department of Education, 1924)

One hundred years ago, the *Proposed Rules and Programme for Secondary Schools* was published (DE, 1924; see Figure 1), outlining the syllabi for the Leaving Certificate (LC) science subjects over eight pages. Each science syllabus runs to little over a page: Physics on pages 43–44, for example. The first LC examination was held in 1925 (Malone & Murray, 2016).

Fast-forward to 2024, and we have 12 new and revised subjects for LC to be implemented in September 2025 as part of the redevelopment of upper secondary education, including new science specifications (NCCA, 2024). Curriculum-making involves decisions about what is taught (content), how it is taught (pedagogy), how learning is assessed and reported, and the broader purpose of education (Dempsey, 2023). The *Programme's*



Dr Majella Dempsey

Associate Professor, Maynooth University



Dr Thomas Delahunty

Assistant Professor, Maynooth University

This article looks at curriculum development in upper secondary education in Ireland. It seeks to problematise the partnership model used by the National Council for Curriculum and Assessment, where all voices are not equal. In particular, it focuses on the neoliberal influence on STEM education, where there is an unhealthy focus on qualifications.

hundred-year anniversary is a salient time to examine how curriculum-making has evolved in Ireland.

The National Council for Curriculum and Assessment (NCCA), established on a statutory basis in 2001, develops curriculum and assessment policy. The work is led by an executive working with subject development groups (DGs), with ultimate decisions on the advice sent to the Minister for Education being made by a 26-member council. The work is informed by research, deliberations, consultation, and work with networks of schools and early childhood settings. The Minister can take the advice and implement change, or may ignore it, as was evidenced by the Junior Cycle History debate (DE, 2019).

Partnership underpins the NCCA's work. This provides space for representative bodies to talk through and consider all aspects of proposed change in specification content and to give advice on assessment at DG meetings. The NCCA education officer actions the decisions made, and this cycle continues until a draft specification is agreed upon. Figure 2 provides an overview for science subject specification development between 2019 and 2024, using Biology as an example. Public consultation occurs at two points: before work on development begins, and after publication of the draft specification.

Partnership underpins the work of the NCCA.

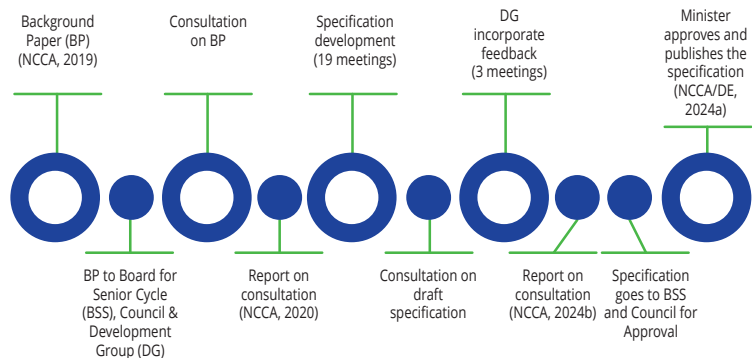


Figure 2: Example of curriculum development for LC science subjects

In all discussions, the members of the development groups bring their expertise as subject specialists and the views of their organisation. Their work may be considered as a form of horizontal partnership (O'Riain, 2006), where each voice is equal and focused on the development of a specification that is, ideally, focused on qualification, socialisation, and subjectification (Biesta, 2020).

The qualification aspect is about progressing to further study and work. The socialisation aspect is about, among other things, a way of thinking like a biologist, incorporating topics such as health and sustainability; it is

underpinned by the knowledge, skills, and traditions of science education. The subjectification aspect is about living in and with the world as a person.

A significant body of educational scholarship tells us that changes in curricular focus since the 2008 financial crisis have intensified an authoritarian, neoliberal turn, which not only over-determines the purpose of education as qualification (Delahunty, 2024a) but mutates praxis to instrumentalism (Todd, 2022) and increases focus on performativity in large-scale assessment (Kirwan & Hall, 2016). It is not that qualification is unimportant, but an overemphasis on this purpose is tantamount to narrowing education's role in facilitating the holistic, democratic growth of students – which, as recent far-right emergences have shown, has never been more important.

Struggles with the vertical dimensions of partnership are evident in recent curriculum development. Following publication of the three science specifications, the Association of Secondary Teachers in Ireland (ASTI) and Irish Universities Association (IUA) representatives said they wished to dissociate themselves from the implementation (Grenon et al., 2024, p.5). These representatives were part of the DG deciding on the curriculum in the specifications, so one can only conclude that the partnership model is not working as it should be.

Do we have democratic decision-making through this partnership model, or do some voices seek to exert more power than others, and in particular disciplines such as science? Though the NCCA is a representative structure, based on a particular partnership model of policy development, and though it is a policy space where curricular concerns are raised and negotiated by education partners at DG stage, at the board for Senior Cycle, and at council, this does not guarantee agreement on proposals.

Some of these tensions are evident in the Irish Science Teachers' Association's (ISTA) (2024) response to the draft specification, where they attest that 66.7% of the learning outcomes in the Biology specification lack clarity, and they call for a list of mandatory experiments – calls we would describe as focused on the content of the specification with little attention given to the purpose of education. Delahunty (2024b), through critical analysis of recent official discourses from the ISTA, among others, has uncovered an overemphasis on detailed learning outcomes as a symptom of the neoliberal coloniality in contemporary policy positions, which seeks to further suppress the potential for plurality of curricular approaches and to tie education increasingly to the servitude of market logics.

The ISTA finishes with the line, 'We hope that all science teachers will be treated with respect and that their opinions valued in this spirit of partnership' (ISTA, 2024, p.14). This ostensibly showcases a concern with professional respect; however, the notion of increasing the specificity simultaneously works to

A significant body of educational scholarship tells us that changes in curricular focus since the 2008 financial crisis have intensified an authoritarian, neoliberal turn, which over-determines the purpose of education as qualification.

crystallise curricula as central to governance of educational subjectivities (teachers and students) and to de-professionalise teaching to policy actors of service delivery.

The brevity of this article means it cannot fully explore the issues with the partnership model of curriculum-making in Ireland; rather it serves to point out some challenges faced in the process. We have moved a long way in how we develop and present curriculum from 1924, when content was listed over one to two pages and teachers were arguably trusted to make pedagogical decisions on how to teach a curriculum. The inclusion of all interested groups on various DGs, boards, and council in NCCA has ensured a rich and deep engagement with curriculum-making but has not ensured a smooth pathway from the written to the enacted and experienced curriculum, nor a guarantee that all voices are included or heard equally.

BIBLIOGRAPHY

- Association of Secondary Teachers in Ireland (ASTI) (2024) 'ASTI calls on education Minister to defer revised Leaving Certificate science subjects'. Press release, 26 June. Dublin: ASTI.
- Biesta, G. (2020) 'Risking ourselves in education: Qualification, socialization, and subjectification revisited', *Educational Theory*, 70, 89–104.
- Delahunty, T. (2024a) 'The convergence of late neoliberalism and post-pandemic scientific optimism in the configuration of scientific learnification', *Educational Review*, 1–23.
- Delahunty, T. (2024b) 'Unearthing the coloniality of neoliberalised curricular discourses to promote a public orientation towards secondary science education', *International Journal of Science Education*, 1–20.
- Dempsey, M. (2023) 'Curriculum: The great public project'. In: C.A. Säfström and G. Biesta (Eds.), *The New Publicness of Education: Democratic Possibilities after the Critique of Neo-Liberalism*, pp. 39–54. London: Routledge.
- Department of Education (DE) (1924) *Proposed Rules and Programme for Secondary Schools*. Dublin: Government publications.
- Department of Education (DE) (2019) 'Minister McHugh announces decision following Review of History in Junior Cycle Framework'. Press release, 3 October. Dublin: DE.
- Grenon, M., Kennedy, D., and McCauley, V. (2024) *Report submitted to the NCCA in response to the Leaving Certificate Biology, Chemistry and Physics Draft Specifications, by the IUA Representatives to these Subject Development Groups*. Dublin: Irish Universities Association.
- Irish Science Teachers' Association (ISTA) (2024) *Report presented to the Minister for Education and NCCA in response to the 2023 draft specifications (syllabi) in Leaving Certificate Biology, Chemistry and Physics*. February. ISTA.
- Kirwan, L. and Hall, K. (2016) 'The mathematics problem: The construction of a market-led education discourse in the Republic of Ireland', *Critical Studies in Education*, 57(3), 376–393.

Malone, D. and Murray, H. (2016) *Archive of Maths State Exam Papers*. Maynooth University. <https://archive.maths.nuim.ie/staff/dmalone/StateExamPapers/>.

National Council for Curriculum and Assessment (NCCA) (2024) *Curriculum Specification for Leaving Certificate Biology*. Dublin: NCCA.

Ó Riain, S. (2006) 'Social partnership as a mode of governance: Introduction to the special issue', *Economic and Social Review*, 37(3), 311–318.

Todd, S. (2022) 'Reframing education beyond the bounds of strong instrumentalism: Educational practices, sensory experience, and relational aesthetics', *Educational Theory*, 72(3), 333–347.

ASTI/ TUI leaders to join teachers protesting outside Dublin school



19th November at Coolmine Community School in Dublin 15.

TUI President David Waters and ASTI President Donal Cremin joined teachers protesting outside Coolmine Community School on 19 November 2024 in a bid to delay the implementation of Senior Cycle redevelopment.

Upwards of 30,000 second-level teachers participated in lunchtime protests all over the country.

The nationwide demonstration followed a decision to 'accelerate' Senior Cycle redevelopment plans. Teachers are gravely concerned that aspects of the plans pose a threat to education standards, fairness and quality for Leaving Cert students. They also have concerns about the current system capacity to accommodate such major change.