

CURRICULUM IMPROVEMENT CYCLE 2024: THE POSITION OF KNOWLEDGE AND PILOT CURRICULUM REVIEWS

A paper focusing on initial findings from Education Scotland's pilot curriculum reviews, with a view to informing the new Curriculum Improvement Cycle announced in December 2023.

Purpose

1. In response to Recommendation 3.4 of the 2021 OECD review of Scottish Education, Scottish Government (SG) Education Reform Directorate has worked alongside Education Scotland (ES) to explore with teachers and other stakeholders what a regular cycle of curriculum improvement might look like. This process contributed to the proposals for a systematic cycle initially discussed at CAB in March 2023.
2. In parallel to the above activity ES has been undertaking a package of pilot curriculum reviews as outlined in the OECD action plan that was endorsed by CAB in May 2022. The 'pilot' nature of these reviews was central to their design and has been emphasised at CAB throughout 2023. Differing approaches were taken for recruitment and selection of participants as well as the processes, tools and methodologies used. The pilots were exploring processes and outputs and identified significant learning as a result. Throughout the process it has been made clear to participants that these pilots were not the reviews themselves and the purpose was to evaluate and review approaches including the impact different approaches have on outcomes as well as analysing outcomes themselves.
3. In her Statement to Parliament on 12 December, the Cabinet Secretary for Education and Skills announced that a new systematic curriculum improvement cycle will commence in 2024. The improvement cycle will begin with maths, with the next priority being English/literacy and - over time - will systematically cover the entire curriculum framework .
4. The pilot reviews have identified a number of themes. We would therefore like to seek CAB members':
 - reflections on the pilot review findings, and
 - steer on the key principles and priorities that should underpin the next phase of work as we move from the pilot activity into a full-scale systematic review and update to the curriculum.

Key findings from the pilot review process

5. Pilot reviews have so far been held in the following curriculum areas; Maths, Health & Wellbeing, Social Studies and Modern Languages. Reviews are also being initiated in Expressive Arts and English/Literacy in early 2024.
6. The pilot exploratory work focused specifically on reviewing and clarifying the position of knowledge within curriculum areas (OECD recommendation 1.2), but the pilot reviews have also aligned very closely with the work on developing a systematic cycle of curriculum review (OECD recommendation 3.4). In particular they have provided the opportunity to explore the technical framework within CfE as well as an opportunity to test the method and approach to curriculum review itself.
7. Further work has also been initiated by ES which focuses on cross curricular themes. There has been engagement with stakeholders on Political Literacy and further work is planned for Financial Literacy and Learning for Sustainability.
8. These reviews have been led by Senior Education Officers with responsibility for the relevant curriculum areas. Initial learning from the pilots and the evaluations was shared with colleagues from the SG Education Reform directorate, including those with responsibility for developing proposals for a systematic cycle of curriculum review.
9. Key emerging conclusions from the pilot reviews are the following (Annex A provides more detail on these discussions and Annex B provides a summary of the key messages):
 - There is evidence that we need to clarify the way that knowledge is covered in the curriculum framework;
 - Practitioners have identified challenges with elements of the Experiences and Outcomes (E&Os), in terms of the content and its suitability as the technical framework which supports the four capacities of CfE;
 - Curriculum review offers an opportunity to address existing structural challenges within CfE;
 - Curriculum review offers an opportunity to develop clearer, more simplified guidance for practitioners (“instead of” rather than “in addition to”). However participants found it more challenging to identify aspects of the curriculum that should be deprioritised.

Next Steps

10. ES will continue with the Pilot Curriculum Reviews in 2024 and initiate pilots in other disciplinary and cross curricular areas. As stated in the agreed OECD Action Plan, ES is on track to have a working model (including process) for full curriculum area reviews ready for April 2024. The pilot for Expressive Arts in January 2024 has been shaped by the learning from the other pilots and offers a ‘test run’ of such a model.
11. Further work is currently ongoing in Maths, following the second national event in October. This includes a planned meeting of the more intensive sub group in

January and a full national event in March 2024. The Health & Wellbeing subgroup is also due to meet this coming term. These will take forward work looking to clarify the position of knowledge in these curriculum areas.

12. Outputs and evaluations are currently being analysed following the Modern Languages event in October, as are those from the Political Literacy meeting from December. This will determine the next steps for both these groups in relation to identifying, prioritising and updating knowledge and skills. They will also explore the extent to which knowledge can be clarified within the current or alternative frameworks.

13. Expressive Arts will hold its first pilot review event at the end of January. The work on Political Literacy will also align with work being undertaken in a similar manner by a group considering a framework for Social Justice and Equality. Other cross curricular events are planned for Financial Literacy and Learning for Sustainability.

Education Scotland
January 2024

Annex A: Detail on the discussions about knowledge

Clarifying knowledge

1. The approach adopted for the Social Studies review focused on ‘unpacking’ the existing Es&Os. This helped identify knowledge, either explicitly or implicitly, referenced in the Es&Os.
2. This process indicated that there was both a lack of clarity for knowledge within Es&Os as well as areas where there appeared to be no reference to knowledge.
3. The discussion in all the pilot reviews identified potential consequences for attainment and understanding as a result of a lack of clarity. For example in the maths review it was suggested that in upper primary, there may be issues with following a ‘checklist’ approach of the Es&Os.
4. The activities in the reviews provided exemplification when learning about fractions. Maths specialists indicated that effective understanding of fractions requires several Es&Os to be bundled together to promote sound conceptual understanding.
5. However, it appeared that the Es&Os were being addressed in a linear manner in some settings. This was felt by maths specialists to limit understanding of mathematical concepts. There was also a sense that there may be an over-focus on the Es&Os in planning. In some cases this resulted in these being seen by practitioners as the effective purposes of the curriculum.
6. Participants also identified potential consequences of a lack of clarity for the position of knowledge on transitions from primary to secondary. In a number of the reviews, secondary practitioners in particular highlighted the impact of interpretations of knowledge at school levels. Differing interpretations were felt to

create variations in the knowledge base of learners moving to secondary from feeder primary schools. This, it was postulated, then undermined confidence of secondary staff who then responded to the lack of a common base of knowledge by 'starting again'. This was viewed as a potential barrier to progression.

7. It was felt that problems such as these could be addressed by providing greater clarity (and thus consistency) of what learners would be expected to know by the end of the primary stage. Similar challenges were identified in relation to the transition from the BGE to the Senior Phase.

8. Providing greater clarity for knowledge across the CfE levels was also seen as a potential solution to concerns expressed about moderation activities. These included issues such as the practicability of moderation processes and a lack of a clear standard to base moderation discussions around. These also link into some wider issues identified in the OECD report regarding understandings of Es&Os, Benchmarks and the uses of progression frameworks.

9. Greater clarity on the knowledge learners should have at key points in learning could also go some way to improve tracking and monitoring processes.

10. These observations are consistent with the messages also contained within [All Learners in Scotland Matter: Our National Discussion on Education](#) (2023) which states, "As part of the review of the curriculum the technical framework of the BGE (including the Experiences and Outcomes) needs to be re-visited to ensure it is still fit for purpose". It was suggested that there should be greater clarity but not prescription. It was also raised frequently that the creation of yet another level of national guidance and documentation must be avoided.

Conceptualising knowledge

11. The first pilot review for Maths identified challenges practitioners faced in trying to conceptualise or define knowledge and, as outlined by the OECD, "recognising knowledge goes beyond disciplines and subjects".

12. This has highlighted the significance of understanding of the differences between knowledge, facts and content. A specific criticism of the 'knowledge-rich' approach has been that it has promoted the memorisation of facts and a 'transmission' model of education.

13. The reviews so far have surfaced a 'disciplinary' focus of discussions. The Social Studies review, for example, had also considered previous work on a 'skills' framework for social subjects. This had readily identified 'subject specific' skills (such as evaluation and analysis) but had omitted any reference to the development of wider transverse skills.

14. As outlined in the OECD 2021 report "knowledge does not necessarily need to be equated with subject specific content and can be discipline based (in smaller or broader learning areas), as well as interdisciplinary-orientated (around themes or projects)".

15. This would then appear to raise questions of how, and where, in reviews focusing on curriculum areas, opportunities are provided within the curriculum to enable learners to develop the knowledge and skills to prepare for life, personal development and the world of work.

16. It highlights some potential challenges relating to who needs to be engaged in curriculum review processes. Some curriculum area specialists faced difficulties when considering wider knowledge and skills and the totality of the curriculum. This highlights the risks of only engaging curriculum specialists and of proceeding with curriculum area reviews without consideration of the totality and purposes (or the big ideas) of the wider curriculum.

17. It should be noted that interdisciplinary knowledge has featured in some of the pilot reviews, though more so in the discussion in the cross curricular reviews.

Progression

18. The issue of progression was identified on a number of occasions in the reviews and despite the creation of a range of progression frameworks at local levels there was still disagreement on the benefits of these. Again themes of clarity, and a need to revisit the current Es&Os framework, arose during discussions generated by the activities that focused on the idea of creating a framework for knowledge.

19. Opportunities to address these issues by considering alternative technical frameworks resonated strongly, for example in the first meetings of the maths subgroup when exploring a 'Big Ideas' model.

An Alternative Framework

20. A 'Big Ideas' model would seem to provide greater clarity on the role and position of knowledge. This model, sometimes referred to as 'know-do-understand' (see below) was explored by the maths subgroup as part of their follow up to the activities and feedback from the first maths event in February 2023.

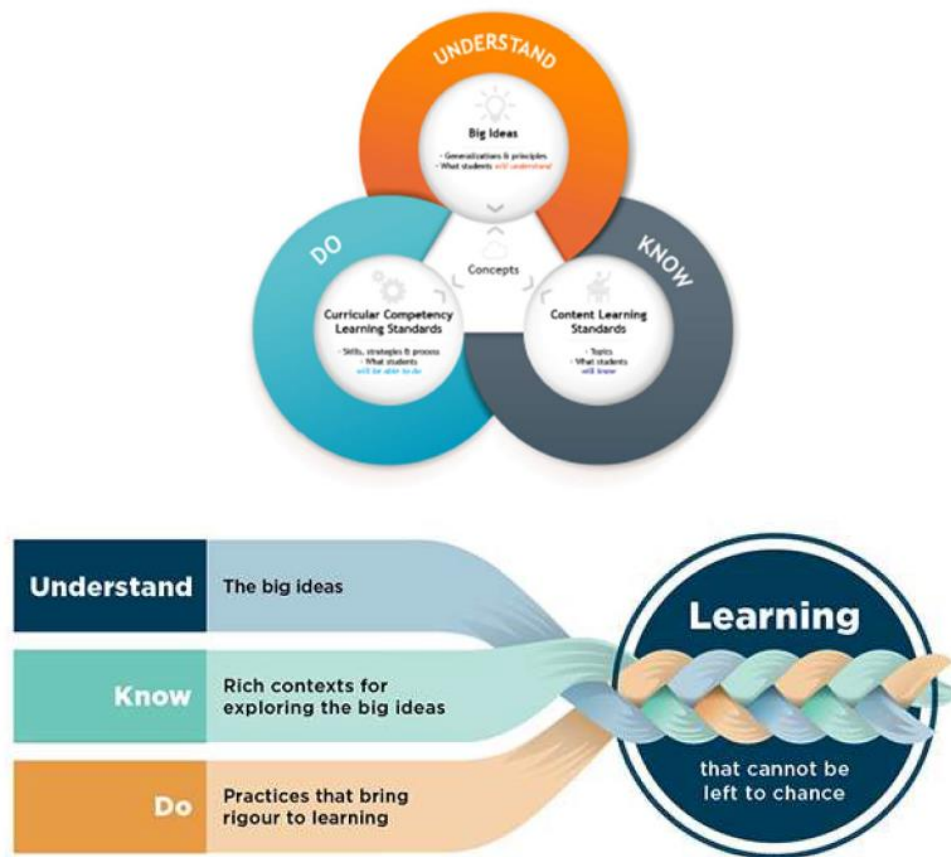


Fig 1.0: Conceptual high-level examples of Big Idea Frameworks from British Columbia and New Zealand.

21. This led to collaboration between the maths subgroup and educators from British Columbia and also the involvement of British Columbia educators with the wider pilot review group in October 2023.

22. Interestingly, the work of the Health & Wellbeing pilot review group has arrived at some similar conclusions even though they used an entirely different methodology for their review. As part of their approach, the group focused on a 'blanks slate' approach based on designing a Health and Wellbeing curriculum from the bottom up.

23. The maths review identified similar potential benefits when exploring the British Columbia approach, focusing in particular on the clarity this type of approach offered for knowledge. See for example [Curriculum | Building Student Success – B.C. Curriculum \(gov.bc.ca\)](https://www2.gov.bc.ca/gov2/education/curriculum_frameworks/curriculum_building_student_success_bcc.html).

24. A significant piece of learning was that flexibility was needed across the different curriculum areas. For instance, within the parameters of the big ideas model the outputs had to recognise and reflect the specific circumstances of different curriculum areas.

Cross-curricular knowledge

25. The significance of cross curricular knowledge was raised in all three curriculum areas involved in the initial pilot reviews. These were highlighted following discussions particularly focused on future orienting the curriculum and also how the curriculum areas could contribute to the development of the four capacities.

26. For instance in response to the activities used in the first maths review event, the significance of financial literacy was identified repeatedly by participants in relation to both how maths can contribute to the development of the four capacities and when considering what knowledge needed to be included in a future oriented maths/numeracy curriculum. Outputs from the maths event also identified how maths/ numeracy could contribute to other cross curricular themes such as citizenship and sustainability.

The Purpose of Knowledge

27. Discussions on cross curricular knowledge have also led to the exploration of the organisation of the BGE, particularly in secondary schools. An alternative model could see the secondary BGE organised into broader learning areas, for example, based on cross curricular themes, 'big ideas' or 'core literacies'. This could align with aspirations to ensure that all learners are equipped with the knowledge and skills required to operate independently and as active citizens in the 21st century.

28. These 'core literacies' could aim to ensure learners are literate and numerate, have the digital knowledge and skills required to operate in a rapidly changing society, are politically, financially and scientifically literate, understand sustainability, are culturally literate and secure in their own health and wellbeing. This could then provide a rationale for the elements of knowledge to prioritise and act as a basis for developing a common base of knowledge and skills for all learners by the end of the BGE. For instance 'social literacy' was identified as one of the outcomes from the initial Health & Wellbeing event.

29. Tensions however exist between such an alternative purpose for the BGE and the need to promote progression and preparing learners to access the Senior Phase. This tension was highlighted during discussions on the maths pilot and appeared to be more relevant for hierarchical subjects. However, it may be that this could help shape decisions on the prioritisation of knowledge and skills within curriculum areas. This may have a bigger influence on more horizontal curriculum areas.

Annex B: Summary of key messages from the pilot reviews

1. There are a number of themes emerging from the work of the Pilot Curriculum Reviews.

2. These themes include:

- The need to clarify the position of knowledge. This aligns with advice from the OECD (2021) that “clarifying the role of knowledge in the vision of CfE is the first step to strengthen the coherence of CfE”.
- Consideration is required of the totality of the curriculum and the position of knowledge as the systemic improvement cycle begins.
- A willingness from those involved in the Pilot Curriculum Reviews and from teachers in particular, to consider alternative technical frameworks that might provide greater clarity but without resorting to the dangers of strict specification. [Clarity vs Specificity]
- A greater clarity linking the position of knowledge to how knowledge and skill can develop the 4 capacities is needed. The curriculum area ‘Principles and Practices’ documentation should be reviewed as part of this process.
- A clear reluctance to create new or additional levels or layers of guidance (when clarifying the position of knowledge). New, simplified and clear guidance is needed.
- Curriculum review is a specific opportunity to develop a clearer and more streamlined framework. This might thus address the issues surfaced by the OECD (2021) regarding “the complexity and overload due to numerous elements including ‘expectations and outcomes; benchmarks: moderations; progression levels and more’ leading to a ‘cluttered’, ‘over-accessorised curriculum’ which includes ‘specific, somewhat unnecessary, jargon”
- A ‘big ideas’ model may provide a means to deal with decisions on what knowledge (and skills) to prioritise.
- There are potential opportunities through curriculum review to address deeper ‘structural’ challenges with CfE. These can include:
 - o Alignment between the BGE and Senior Phase,
 - o tracking and monitoring
 - o processes for moderation
 - o barriers to attainment
 - o barriers to effective transitions
 - o ambiguities over progression and achievement of a level.
- There has been significant learning from the pilot reviews for how a process of curriculum review can be carried out. There are risks arising from curriculum area reviews of an over focus on traditional disciplinary academic knowledge and skills. Consideration must therefore be given to how this can be avoided as a result of decisions on who is involved in reviews, how these reviews will be led or who will have overview of the work of the reviews.

Some issues for further discussion

3. The recent statement from the Cabinet Secretary for Education and Skills has set the direction for the curriculum improvement cycle and the position of knowledge. The statement indicated that in 2024 “....we will begin a Curriculum improvement cycle. This will include curriculum content, the role of knowledge, transitions between primary and secondary and alignment between the broad general education and the senior phase”.

Outlined below are a number of high level questions for CAB:

- What should be the purpose(s) of knowledge within the curriculum?

- How can greater clarity on the position of knowledge be provided that avoids risks of over-prescription?
- To what extent is it possible for knowledge be clarified within the current technical framework, and in doing so does not add further levels of guidance and documentation or further cluttering the curriculum?

If time:

- How can review processes and structures avoid an over-concentration on disciplinary knowledge and skills?
- What are the practicalities that need to be considered and what would be required for successful implementation of changes to the curriculum