

Model	Underpinning ideology (Schiro/Kelly)	Curriculum focus and design approach	Implications for teaching, learning and assessment	Theories coherent with the model
Content-based	Scholar-academic (S) founded on disciplinary content and ways of thinking Curriculum as content and education as transmission; knowledge is valuable in itself (K)	Curriculum-centred Planning learning tends to be subject-focused (may also include interdisciplinary approaches but this will not be main focus). A focus on what is considered to be valuable subject knowledge.	Teacher teaches for understanding of subject content. Emphasis on teacher's content and pedagogical content knowledge. Knowledge resides in subjects/domains. Emphasises summative assessment and attainment. (Formative may still be used – tends to emphasise formative assessment to assess understanding and uncovering misconceptions and misunderstandings to enable teacher to 'correct' or re-explain.) Classroom culture in which pupils' intellectual growth is foregrounded. May emphasise direct teaching – may also include group working and cooperative or collaborative learning but focus is on understanding of subject content. May include problem-based learning.	Often informed by cognitive science (e.g. Piaget, Rosenshine) to inform teaching and learning <i>strategies</i>. Cognitive theories of motivation (e.g. goal setting theory, expectancy theory). Also using approaches to learning appropriate to each subject for pedagogic approaches (e.g. design thinking and modelling in art & design/design & technology). May also include 'big ideas' as they relate to disciplinary knowledges (see Wynne Harlen's work on this in science). Big ideas need to be important to the domain and to the pedagogies associated with the domain (sometimes called 'subject-specific pedagogies'). Big ideas relate to what knowledges/concepts are said to be most important to learn if a subject or domain is to be understood. When combined with product model – Mastery learning approaches (Bloom and others). (Mastering 'key concepts' before moving on to learn new concepts.)
Product or outcomes-based	Social-efficiency (S): purpose of schooling is to meet needs of society Curriculum as product and education as instrumental: knowledge is valuable for what it leads to (K)	Curriculum-centred Planning learning tends to be subject-focused, based on clear outlines of what is to be learned in the form of aims and objectives (or learning intentions) 'Instructional design' and/or backwards design (see Wiggins and McTighe, <i>Understanding by Design</i>)	Teacher teaches for understanding of subject content. Creation of sequences of learning based on 'terminal objectives' – also called aims and objectives approach. Classroom culture in which learning is 'sequenced' to enable the meeting of learning objectives – behaviourist approach. Tends towards direct teaching – may also include some group working and collaborative learning but focus is on pupil displaying behaviours that suggest learning objectives have been 'met'. Emphasises assessment as extent to which learning objectives are 'met'. (Formative may still be used.) Can lead to assessment as 'measurement' of learning.	Informed by behaviourist or cognitive-behaviourist theories of learning (Bloom; Bandura) and motivation. Taxonomies of objectives (e.g. Bloom and colleagues). Progression in learning seen as the meeting of more complex objectives. Understanding by Design – Wiggins and McTighe. Working backwards from national standards, to units to lessons to achieve learning goals. (May include 'big ideas' as understood within UbD.) When combined with content model – Mastery learning approaches.

Process-based	Learner-centred, humanist/progressive (S) Curriculum as process and education as development (K)	Pupil-centred Creating learning is more ‘intuitive’ and focussed on pupil needs and interests, alongside the overarching aims of the curriculum (which will tend to be developmental in nature – i.e. relating to development of human potential). Focus is less on what children should know and more on what they will become as human beings. Less emphasis on subjects and more on integrated areas. Curriculum no longer created around knowledge of content but planned around the underlying principles and processes that education seeks to promote (Kelly). Principles and processes should not be separated. Principles are integral to learning activities. They are present at every stage.	Teacher facilitates learning. Emphasises processes of learning. Learning approaches: experiential (based on meaningful activities), discovery learning, enquiry learning, collaborative, ‘authentic’. Tends to be integrative and transdisciplinary: ‘An approach to curriculum integration which dissolves the boundaries between conventional disciplines and organizes teaching and learning around the construction of meaning in the context of real-world problems or themes.’ (IBE/UNESCO) Classroom cultures in which pupils’ intellectual, emotional, and social growth is supported towards development of their human potential. Emphasises learner autonomy and empowerment. Emphasises formative assessment as part of learning processes. De-emphasises summative grading and (grade) ‘attainment’. Formative assessment should focus on each learner to enable learning to be tailored to their needs.	Influence of work of John Dewey (experiential learning); may also be influenced by humanistic theories of learning and motivation (Maslow, Rogers). Influence of social constructivism (Vygotsky, Bruner). Less about progression in learning and more about growth of the individual person to fulfil their human potentials. Knowledge as it is constructed by the individual and collective social group also foregrounded.
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Curriculum coherence

Sullanmaa et al. (2019, p.247) write:

‘Curriculum coherence refers to the sense of direction and purpose within the curriculum, such as the connectedness between instructional activities and learning goals, and the sequential organising of learning experiences... A coherent curriculum requires integration between everyday learning experiences and their wider purpose in different contexts... Moreover, coherence in terms of providing a basis for holistic understanding of the curriculum’s aims within the different levels of the educational system is seen as essential for sustainable school development...’

Drawing on international research and theory, they also write (2019, p. 244) that curriculum coherence matters because:

- ‘school reforms, including curriculum reform, often fail to achieve the desired impact on classroom practice. It is suggested that this may be due to a lack of coherence in the interpretations of the reform’s goals and activities...’
- ‘Maintaining coherence within the elements of the curriculum, and between the curriculum and the reform process, is suggested as being the key to a successful reform...’
- ‘Curriculum coherence, in terms of the alignment and continuity between and within learning goals, content, assessment and instruction, can enhance pupil performance...’
- ‘providing a coherent basis for building shared understandings of the goals of a curriculum... is suggested to be important for the reform to take root. Hence, curriculum coherence is a complex construct that comprises more than alignment within the elements of the curriculum: it also depends on the consistency of the aims being pursued and the intended effects of the curriculum’

Reference

Jenni Sullanmaa, Kirsi Pyhältö, Janne Pietarinen & Tiina Soini (2019) Curriculum coherence as perceived by district-level stakeholders in large-scale national curriculum reform in Finland, *The Curriculum Journal*, 30:3, 244-263, DOI: 10.1080/09585176.2019.1607512