

Approaches to creating curriculum: aligning curriculum, pedagogy and assessment

This overview has been created as part of the Camau i'r Dyfodol project. It highlights the importance of aligning pedagogy and assessment with the approaches to teaching and learning suggested by different models of curriculum design. Alignment supports curriculum realisation that is consistent with the curriculum model that underpins a curriculum framework.

Kelly (2009) describes three main models of curriculum planning and design as:

- Curriculum as content (education as transmission of knowledge and culture)
- Curriculum as product (education as instrumental)
- Curriculum as process (education as development)

In practice some elements of these models may become mixed. This does not mean they should be mixed, it is simply a recognition that there can be differences between the intended curriculum and the taught curriculum. Sometimes these differences lead to teaching and learning practices that are not as consistent with the intended curriculum as they could be. This is not just a matter of theoretical positions: these things matter in practice because they affect what type of education learners experience.

The tables used in the section below to explore alignment draw on the work of Ellis (2003), Kelly (2009) and Schiro (2013). (Other authors are mentioned as appropriate and references given for quotations.)

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1 Curriculum as content (education as transmission of knowledge and culture)

This curriculum model is based around academic subjects (drawing on the wider academic disciplines). Education is seen as: i) intrinsically valuable because it leads to intellectual development; and ii) important for cultural transmission (Kelly 2009, p.58). Kelly argues that this approach to curriculum design gives learners access to what is considered to be ‘intrinsically worthwhile’ in terms of academic knowledge (p.58).

1.2 What does this model suggest for aligning curriculum, pedagogy and assessment?

With this approach to curriculum design, ‘decisions of content are the starting point’ (Kelly 2009, p.56). This doesn’t mean that skills, values, and learner characteristics are not also considered: it just means that subject content becomes the key starting point for curriculum design rather than other starting points (for example, learner interest or learning outcomes).

Content model	Approaches to curriculum, pedagogy and assessment that align
Curriculum emphasis	<ul style="list-style-type: none"> • Tends to be ‘knowledge-centred’ (i.e. academic knowledge) (Ellis 2003) • The starting point for curriculum development is disciplinary/subject knowledge – what forms of knowledge are central to subjects/disciplines? What ways of thinking, reasoning and understanding are necessary if we are to say a pupil has learned? What knowledge is it worthwhile to learn and why?
Teacher role and teaching approaches	<ul style="list-style-type: none"> • Teacher-directed curriculum (Ellis 2003) • Teachers mediate subject/disciplinary knowledge as subject experts • Various teaching strategies, often based on the nature of the discipline being studied and the structure of knowledge within the discipline (Ellis 2003, p.115)
Approach to learning	<ul style="list-style-type: none"> • Content to be mastered • Cognitive/intellectual development is foregrounded • Learner becomes more knowledgeable/scholarly over time: the sequence of learning is from simple to complex • Progress in learning relates to how effectively knowledge is gained • Academic knowledge gives pupils the means to understand the world in general and their world in particular
Environment for teaching and learning	<ul style="list-style-type: none"> • Subject/discipline centred (cross-curricular and interdisciplinary approaches may also feature) • Cognitive learning theories align well with this model
Approach to assessment	<ul style="list-style-type: none"> • Focus on attainment • Formal tests/examinations

2 Curriculum as product (education as instrumental)

This view of curriculum design focuses on the outcomes of learning and is generally based on aims and intended learning objectives. Objectives are ‘clear statements which seek to define what students know or can do as a result of their education’ (Priestley, 2019). This approach is also known as the objectives model of curriculum design and became popular in the 1960s (Priestley, 2016). Under the influence of competence-based approaches to teaching and learning, objectives are often stated as learning outcomes: high-level broad and generic outcomes that avoid the over-prescription of detailed objectives (Priestley, 2016). This model has influenced the ‘backward design’ approach to curriculum planning.

2.1 What does this model suggest for aligning curriculum, pedagogy and assessment?

This model takes an ‘ends-means’ approach to curriculum design, starting with pre-specified objectives or outcomes (McKernan 2008, p.9). Curriculum design begins with the outcomes to be met: content and pedagogies are selected based around the idea of meeting these objectives. When combined with a content orientation, the result is Mastery Learning: content is broken down into intended learning objectives (see Kelly 2009, p.84).

Product model	Approaches to curriculum, pedagogy and assessment that align
Curriculum emphasis	<ul style="list-style-type: none"> • Focus on ‘terminal objectives’ (Schiro 2013, p5) of the curriculum: working backwards from these to decide what is to be learned at unit and lesson level. • Sequencing of learning towards end objectives: what activities need to be designed so that learners can meet objectives? • The emphasis is less on processes of learning and more on the end result of instruction: that is, on the goals to be met.
Teacher role and teaching approaches	<ul style="list-style-type: none"> • Tends to be teacher directed: teacher as instructor • Teacher ensures pupils work through curriculum tasks • Teachers ensure the most efficient way of teaching to meet objectives
Approach to learning	<ul style="list-style-type: none"> • Learning as behavioural change: instruction shapes or promotes behavioural change • Learning as linear: learning experiences build sequentially and produce a cumulative effect towards the meeting of learning goals • Progress in learning relates to whether or not learning objectives are met • Learner becomes more competent as learning objectives are met
Environment for teaching and learning	<ul style="list-style-type: none"> • Teacher manages efficient learning environment focused on meeting learning goals • Behaviorist learning theories align well with this model
Approach to assessment	<ul style="list-style-type: none"> • Assessment of performance against learning outcomes: understanding is evidenced through performance against objectives • Summative assessment evaluates meeting of objectives • ‘Measuring’/tracking attainment

3 Curriculum as process (education as developmental)

The process model sees curriculum as focused on processes of learning and development. The ways of thinking about curriculum, learning and teaching that underpin the process model are 'diametrically opposed to the ends-means rationality of the objectives model' (McKernan 2008, p.95). This model sees curriculum documents not as sets of outcomes but as statements of the principles and processes that education seeks to develop.

3.1 What does this model suggest for aligning curriculum, pedagogy and assessment?

The starting point for the process model is human development and the human potential that education seeks to develop. This model also foregrounds openly the 'value positions' of the curriculum, particularly in relation to preparing individuals 'for active and productive life' in democratic society (Kelly 2009, p.91). These starting points and values then inform decisions about the worthwhileness of what is to be learned and why.

Process model	Approaches to curriculum, pedagogy and assessment that align
Curriculum emphasis	<ul style="list-style-type: none"> • Experiential focus for learning: education as a process of growth and development of understanding (Kelly 2009, p.93) • Integrated studies approach rather than separate subjects, but does draw on disciplines • Focus on learner interests and on the processes of learning that will support their holistic development • More fluid courses of study with real-world emphases • Aims of learning are realised as an integral part of educational processes not as a result of them. (McKernan 2008, p.95)
Teacher role and teaching approaches	<ul style="list-style-type: none"> • Teacher facilitates; creates opportunities for learning • Encourages pupil empowerment, autonomy, development of capabilities relating to personal choices, decisions and judgements • Creates a 'new role for the teacher' as a 'resource rather than an authority' (Henley et al., in Stenhouse 1976, p.92)
Approach to learning	<ul style="list-style-type: none"> • <i>Worthwhile</i> activities and experiences to support learner development • Cooperative/collaborative/relational/pupil initiated/learner interests • Topic units, project learning, interdisciplinary • 'It implies teaching by discovery methods or inquiry methods rather than by instruction.' (Stenhouse 1976, p.91) • Progress in learning is seen as continuous and individualised: education as an 'ongoing, open-ended process, subject to constant reassessment... as a result of pupil-teacher interaction' (Kelly 2009, p.82)
Environment for teaching and learning	<ul style="list-style-type: none"> • Environments 'rich in possibilities... that invite the children to undertake extended exploration and problem-solving' (Edwards in Schiro, p.138) • Constructivist learning theories align well with this
Approach to assessment	<ul style="list-style-type: none"> • Formative and authentic • Learner (and teacher) reflections on learning

4 Thinking points

Reflecting on your teaching and your approach to learning, what is your current approach to each of these aspects?

What are the main emphases in the curriculum as you have created it for your learners?	
How would you describe your role as a teacher and the teaching approaches you currently use?	
What approaches to learning do you use currently?	
What teaching and learning environment do you currently create in your classroom(s)?	
What approaches to assessment do you use?	

What does this suggest about which curriculum model your practice currently aligns with?

5 References

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