Priestley, M. & Nieveen, N. (2020). Understanding curriculum. In: Chartered College of Teaching (ed) *The Early Career Framework Handbook (*pp. 135–143). London: SAGE Publishing.

Understanding Curriculum

Introduction

Discussion that specifically relates to the school curriculum is firmly back on the educational agenda in the UK after a hiatus of around 25 years. This development is to be welcomed for at least two reasons. First, "the curriculum is – or at least should be – at the heart of educational discourse and practice" (Priestley & Philippou, 2018, p.2). In recent years, there has been a tendency to neglect consideration of curricular issues when developing practice, as schools have become more likely to be influenced by more instrumental concerns driven by accountability systems. Second, teachers play an important role in curriculum making; policy intentions set out in official curriculum texts only take us so far, and they still need to be translated into practice. This is an active process requiring teachers to work from first principles to develop their practice, and thus requires a good understanding of curriculum (e.g. Priestley, Biesta & Robinson, 2015; Nieveen, Van den Akker & Resink, 2010). This chapter provides an introduction to some core curriculum concepts, addressing the following aims, which align closely to ECF standard 3:

- To set out a framework for understanding curriculum and its role in the development of educational practice;
- To reflect upon the resources required for developing the curriculum;
- To explore issues related to sequencing and progression.
- To reflect upon the relationship between knowledge and skills in the curriculum.
- To suggest implications for curriculum making by teachers

These are, of course, complex issues, and so the chapter identifies further reading where applicable.

The role of curriculum

Curriculum has been commonly characterized in the UK as content, most often organized into a range of subjects that are familiar to anyone who has attended school. This can lead to narrow thinking and may limit possibilities for curriculum making in schools. A narrow focus on the 'what' neglects consideration of big curriculum questions, for example relating to purpose (the 'why'), methodologies, including pedagogy, assessment and provision (the 'how'). Some curricula have sought to address this issue by expanding the definition of curriculum. For example, Scotland's Curriculum for Excellence has defined curriculum as "the totality of all that is planned for children and young people throughout their education" (Scottish Government, 2008, p.11). While this is helpful up to a point in broadening our view, it is also problematic as it is not specific about what the totality comprises. A more constructive definition is to view curriculum as "the multi-layered social practices, including infrastructure, pedagogy and assessment, through which education is structured, enacted and evaluated" (Priestley, 2019, p.8). This repositions the concept of curriculum; instead of being a product, produced by an external agency and uncritically 'implemented' or 'delivered' by teachers, the curriculum in school becomes something that practitioners enact or make in their own contexts. The chapter will adopt the concept of curriculum making in its subsequent discussion of the curriculum. There are a number of implications that stem from thinking about curriculum in this way.

First, consideration of purpose is important. It is essential that you engage with 'big ideas' underpinning your practice, when curriculum making. Sense-making is important; if you do not fully understand the purposes and principles, then you are likely to develop practices that are not fit-for-purpose. When new policy emerges, part of the sense-making should be about understanding how the new differs from the old. Consideration of the big ideas in a curriculum policy should take place

against the backdrop of broader professional discussions about the purposes of education (see the section on Organizing the Curriculum). Second, thinking about curriculum as social practice requires us to consider what those practices might be. Curriculum making thus includes consideration of knowledge/content based on curricular purposes, but it also involves deliberation about pedagogy (how we learn also shapes the intellect), how we build in opportunities to assess students, and how we might best organize knowledge. The curricular spider's web metaphor (Thijs & van den Akker, 2009) is helpful in allowing us to see the full range of practices that need to be considered in curriculum making, with 'they' referring to the students (see Figure 1). Many of these elements will be considered in the remainder of the chapter.

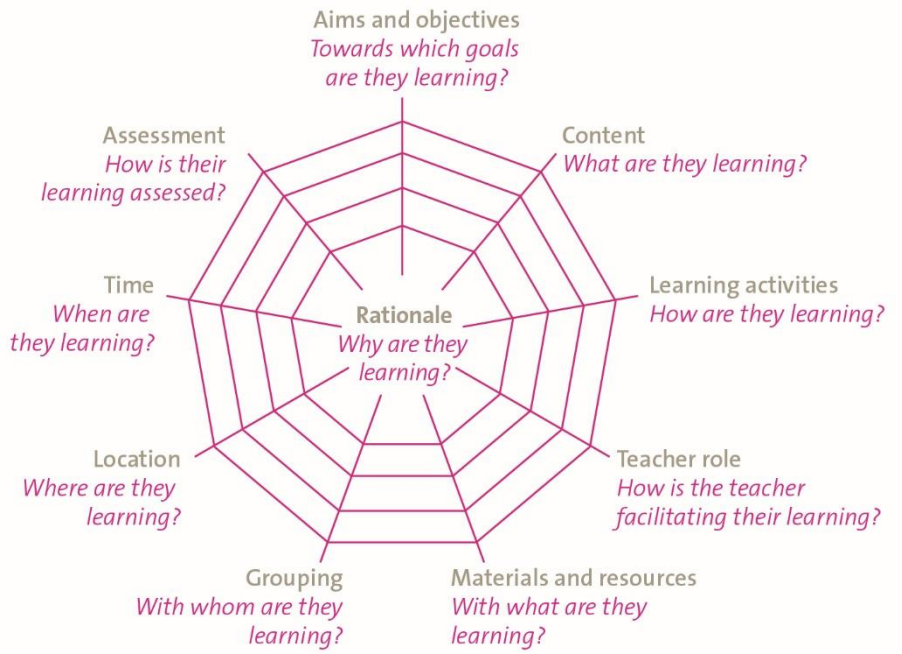

Figure 1: Curricular spider's web (Thijs & van den Akker, 2009)

One question relates to whether traditionally configured subjects are the best approach. Subjects have tended to become set in stone, as ends of education rather than as one means of organizing knowledge. In many secondary schools this leads to gaps (e.g. where do students develop the political literacy and knowledge of social structures necessary for active and engaged citizenship) and a fragmented timetable where students might see 15-20 teachers in a week. You should consider whether the appropriate question for planning the curriculum is 'what knowledge, skills and attributes should a young person develop in order to become an engaged citizen?', as opposed to the more commonplace 'what subjects should be taught?'. Of course, this question should be grounded in the question of purpose – what schools are for – and guided by a principle of fitness-for purpose. In terms of pedagogy, this also requires you to think about how new knowledge might be acquired; for example, when is it appropriate to engage in direct instruction (e.g. for building systematic concept maps) and when are student centred methods (e.g. student dialogue, inquiry) more applicable?

Selection of resources

Curriculum making is dependent on – and shaped by – the availability of resources. These can be material, cognitive or relational. Material resources include textbooks and other teaching materials (for example those downloaded from websites). Selection and use of material resources needs to be

planned carefully, in order to ensure that pedagogy is supported in a way that aligns with curricular purposes. For example, you may wish to consider what resources are required to support a particular type of activity (e.g. cooperative learning or direct instruction), but should also consider what the activity aims to achieve (e.g. development of deep understanding of a concept already taught directly, or the initial development of a basic concept map). Material resources also include the physical spaces where learning and teaching takes place, including the wider school environment and outdoor spaces. These can seriously limit curriculum making. The authors have encountered a school where the introduction of a whole school programme of cooperative learning was hindered by classrooms where desks were bolted to the floor, facing the front of the room.

Organizing the curriculum

Many modern curricula have been criticized for downgrading knowledge, instead over-focusing on skills development. In England, conversely, the curriculum has been criticized for reducing knowledge to the memorization of facts (for an overview of different approaches, see Young & Muller, 2010). The next section will address the issue of balance between skills and knowledge; here, the authors make the case for the importance of knowledge, while accepting the principle that this needs to be selected by practitioners as part of a coherent approach to developing understanding over time. One of the basic questions that curriculum makers need to consider carefully is 'What knowledge is of most worth?'. This is not an easy question. What should count as knowledge? What types of knowledge are essential? Answering these type of questions relates to the position you take regarding the purposes of education. One framing is provided by Biesta (2015):

- Qualification: education needs to provide students with the necessary knowledge, skills and dispositions;
- Socialization: education needs to assist students to become part of and identify with the existing social, cultural and political practices and traditions; and
- Subjectification: education needs to help students to become the unique individuals that they can be.

Ideally, a comprehensive curriculum will cover all three purposes in a balanced way. Nevertheless, the design of a curriculum depends on the purpose[s] you prioritize. A curriculum that emphasizes qualification tends to be subject-oriented with, as essential concepts: objectives, sequential learning, direct instruction and achievement testing. A curriculum that focuses mainly on socialization and/or social reconstruction may focus on meeting the needs of, or developing society. A curriculum that aims at subjectification is usually individual-centred. For this latter orientation, Klein (1999) suggests that students need to become the curriculum developers, and the curriculum is thus not pre-planned by adults.

Sequencing issues are mainly related to the subject-oriented curriculum. Here, next to the question 'what knowledge is of most worth?', you also need to make decisions about the way in which the curriculum is best organized. Tyler (1949) wrote, in his famous book 'Basic principles of curriculum and instruction', that organizing is an important issue in curriculum development. Changes in students develop slowly:

> … by the culmination of educational experiences, profound changes are brought about in the learner. In order for educational experiences to produce a cumulative effect, they must be so organized as to reinforce each other. (p.83)

Regarding organizing the curriculum, a major foundation has been provided by Bruner, who coined the idea of the spiral curriculum in the 1960s. According to Bruner (1960):

> The foundations of any subject may be taught to anybody at any age in some form … A curriculum as it develops should revisit these basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with them. (p.12)

A spiral curriculum shows the progression of learning. When you design a spiral curriculum, first you have to decide on the big ideas (or key concepts, central questions, major curriculum elements). These are long-term considerations that are significant for the field you are about to teach, and form the organizing threads. There are three guiding criteria when further organizing the learning experiences of the students, already identified by Tyler and still in use:

- Continuity: refers to the organization over time. Vertical relations are facilitated when courses are organized over a period of years in larger units and when the key concepts are reiterated.
- Sequence: refers to the importance of successive experiences that build on one another and that go more broadly and deeply into the concepts that are involved. Posner and Rudnitsky (1986) provide an array of broadening and deepening sequencing principles: 1] world-related sequences (e.g. space, time); 2.] concept-related sequences (e.g. class relations, propositional relations); 3] inquiry-related sequence (e.g. logic of inquiry); 4] learning-related sequences (e.g. empirical prerequisite, familiarity, difficulty); and 5] utilization-related sequences (procedure, anticipated frequency of utilization).
- Integration: refers to combining the concepts with the broader field in order to help pupils to get a more unified view on the matters.

Advantages of creating learning progressions are that they promote reiteration, deepening, broadening and integration of key concepts, which in turn assist students in strengthening their understanding. Moreover, learning progressions assist teachers and students in tailoring lesson planning to support student learning. Nevertheless, it is important that you make tentative decisions regarding the learning progressions, prevent them from being too fine-grained and test them to see whether they indeed assist in developing continuity, sequence and integration.

Knowledge and skills

A significant issue, which has characterized debate around the curriculum in the UK, concerns the development of spurious dichotomies. These include knowledge versus skills, children versus subjects, ‘sage on the stage’ versus ‘guide on the side’ and ‘traditional’ versus ‘progressive’. The knowledge versus skills debate has become especially pernicious. Advocates of the former decry the instrumental focus of curricula which seek to develop skills, instead calling for curricula based in essential knowledge or ‘cultural literacy’. Conversely, advocates of a skills-based curriculum assert that we are preparing children for jobs that do not exist yet, or claim that knowledge is now at everyone’s fingertips via Google. These either/or positions are unhelpful. Knowledge and skills are not easily separable. According to Gill and Thomson (2012), ‘this dichotomy is a false one because knowing can consist of a complex set of skills” (p.37). They suggest that much knowledge is about concept-building, and to possess a concept is the skill of being “able to recognize relevant similarities and differences” (ibid.). This is not new thinking; John Dewey (1907), regarded by many as the father of progressive education, explicitly rejected what he saw as the false dichotomy of knowledge and process, emphasizing the importance of the accumulated wisdom of the world. According to Hofkins

and Northen (2009, p.41), "there is an easy way to eliminate these facile, but dangerous, dichotomies". This is to "simply substitute 'and' for 'not' and 'versus'" (ibid.).

It is perhaps more constructive to view knowledge and skills as different types of knowledge. For instance, one can classify what is generally termed knowledge as propositional knowledge – 'knowing that'. This includes facts, first order concepts that are specific to a subject (e.g. monarchy in History) and second order of generic concepts (e.g. continuity and change). Skills may be better classified as procedural knowledge – 'knowing how'. A key challenge in curriculum making is to identify how these different forms of knowledge inter-relate, thus achieving a balance between them. It is worth noting here the central importance of the teacher in developing a coherent curriculum that systematically enables students to build concept maps and deepen understanding. This involves pedagogical questions. For example, when is it appropriate to practise a skill in order to gain mastery? When is dialogue helpful to deepen understanding? When is it best for you to explicitly develop conceptual framings through direct instruction?

Conclusions

Sustainable (school-wide) curriculum change needs productive relations between curriculum development, professional development of teachers, and school organization development (see Figure 2).

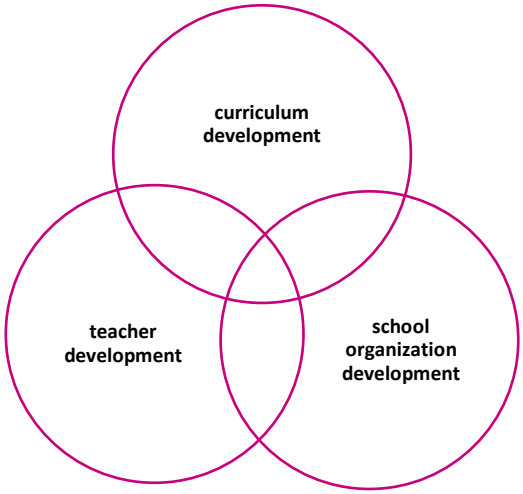

Figure 2: Three interrelated developments at the school level

Regarding curriculum development, the spider's web metaphor in Figure 1 illustrates that the components of the envisaged curriculum need to form a coherent set: all components have to be addressed when changing the curriculum. With respect to teacher development, it is important to note that major curriculum changes also imply a need for change in at least three dimensions, as suggested by Fullan (2007): new pedagogies, new materials, altered beliefs. Moreover, teachers need to become collaborative curriculum designers who, for instance, create meaningful connections between knowledge and skills of adjacent subject areas. For the school organization, this means that it should become a powerful learning, teaching and design environment, fostering a culture of collaboration and accountability and developing structures that are helpful in this kind of school culture. These include suitable work spaces for joint work, opportunities for learning inside and outside school, cross-over structures and regular communication to all staff in the school about progress. Curriculum change that integrates these developments is at the heart of the model introduced in Figure 2 (cf. Handelzalts, Nieveen & van den Akker, 2019).

Successful curriculum change calls for a layered approach, including efforts at the classroom level, the school level and the system level, such as top-down guidance from the government and lateral support from teacher education, textbooks and other resources, support agencies, other schools (cf. Nieveen & Plomp, 2017). The takeaway message is that to initiate a curriculum change, it takes efforts and courage from *all* involved, and not just the teachers, to end up with sustainable results.

In summary, when working as a teacher on curriculum matters at the classroom or school level, you need to feel that you have the curriculum capacity to do the job based on your past experiences. You need to be able to envisage the future opportunities regarding the new curriculum. Moreover, the circumstances inside and outside the school should allow you to make the curriculum change happen. If all of these elements are present, your agency as a curriculum maker will be considerably enhanced (Priestley, Biesta & Robinson, 2015).

Concepts and principles from this chapter with further reading (next to the refs mentioned in text)

Defining the concept of curriculum

- Marsh, C.J. & Willis, G. (2007). *Curriculum: Alternative Approaches, Ongoing Issues*. Colombus (OH): Pearson/Merrill Prentice Hall.

Teachers as curriculum makers

- Skilbeck, M. (1984). *School-based curriculum development.* London: Harper & Row.

Teacher agency

- Priestley, M., Biesta, G. & Robinson, S. (2015). *Teacher Agency: An Ecological Approach*. London: Bloomsbury Academic (particularly chapter 4 on teacher networks)

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Handelzalts, A., Nieveen, N. & Van den Akker, J. (2019). Teacher design teams for school-wide curriculum development: Reflections on an early study. In: J. Pieters, J. Voogt, J. & N. Pareja Roblin (Eds.), *Collaborative curriculum design: Sustainable curriculum innovation and teacher learning* (pp. 55-82). Springer. https://link.springer.com/content/pdf/10.1007%2F978-3-030-20062-6_4.pdf

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Scottish Government (2008). *Building the Curriculum 3: a framework for learning and teaching.* Edinburgh: Scottish Government.

Thijs, A. & van den Akker, J. (2009). *Curriculum in development*. Enschede: SLO.

Tyler, R.W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Young, M. & Muller, J. (2010). Three educational scenarios for the future: lessons from the sociology of knowledge. *European Journal of Education*, 45, 11-27.