

Camau i'r Dyfodol

Working with a process approach to Curriculum for Wales:
'I can now be the teacher I always wanted to be.'

Phase 3 Final Report: June 2025



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Style It is anticipated that most readers will access this document on screen (either online or via laptop or PC). It is therefore presented using 12-point Calibri font for clarity on screen, particularly when enlarged using the zoom function.

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Executive summary

Background

The *Camau i'r Dyfodol* research project was designed to support education professionals in Wales to advance practical understandings of progression in learning when working with *Curriculum for Wales*. It is a 3-year project that began in 2022 and involves four research phases. This report focuses on the research activities for Phase 3 which were ongoing throughout 2024. Phase 3 continues the main aim of the project to develop coherent and shared understandings of curriculum, assessment and pedagogy across the education system in relation to *Curriculum for Wales* (CfW).

Research aims and methods

This phase involved three strands. Strand A was designed to support coherent practical understandings of curriculum design through practical approaches to curriculum making in classrooms. The practical curriculum making was based on Phase 2 work with participants from across the system which led to recognition that CfW aligns with a process approach to curriculum design. Strand B provided a co-constructive space for sense-making and collaborative learning with members of Welsh Government and Education Support Partners. This was again based on co-constructed understanding of CfW as aligning with a process approach to curriculum design, and asked participants to consider what this might mean for professional learning, quality, and 14-16 learning in the system. Strand C involved interviews with Initial Teacher Education professionals in Wales to understand how they are supporting understanding of CfW with student teachers.

The research questions explored during Phase 3 were:

1. What are practitioners' perceptions of working with a process approach to curriculum making in relation to *Curriculum for Wales*? (Strand A)
2. What do Education Support Partners perceive are the implications of a process approach to *Curriculum for Wales* for: quality in the system, professional learning, and 14-16 learning? (Strand B)
3. How are Teacher Education Institutions working with student teachers to support their understanding of *Curriculum for Wales* and how to realise it in practice? (Strand C)

Data collection and analysis

Phase 3 used a qualitative interpretivist research design in which evidence was gathered from workshops, interviews, and discussion sessions. Researchers also visited schools as part of co-construction working during the curriculum making activities. The range of evidence included: transcripts of online group discussions; interviews with teachers in participating schools; notes and written overviews of thinking produced by workshop participants; researcher summaries and observation notes from in-person workshops and twilight discussion sessions; and examples of units of work created by curriculum workshop participants. We analysed the data using Braun and Clarke's (2019) reflexive thematic analysis

Key findings

Findings from Phase 3 are as follows:

- Overall, school practitioners were positive about working with a process approach to curriculum making. It allowed for more responsiveness to learner interests and needs, slower and deeper learning, greater inclusivity, and more individualised learning experiences. Practitioners also reported increased learner involvement, engagement and enthusiasm.
- Practitioner comments about using the process approach included: 'I can now be the teacher I always wanted to be'; 'I think that this is probably the closest we've got to so far... to ohh - we can define what our curriculum is'; 'This is much more starting from what matters... It is much more pupil focused'; 'What these children have achieved through this project is something that wouldn't have happened if I'd stuck to my own planning'; 'I think it's seeing how engaged the children are... [This] works for so many children and it's inclusive.'
- Many practitioners reported more enjoyment in relation to their practice because professional conversations and collaborative planning provided stimulation and inspiration. Having the time for collaboration was highly valued, but this time was not available to all participants. The additional workload involved with curriculum making needs dedicated time and space. Participants also highlighted the important role of school leadership in encouraging new ways of working.
- Practitioners varied in the extent to which they were able to embrace the process approach fully. Many participants felt reassured that their realisation had so far been 'on the right lines', but some others noted initial uncertainty because the process approach involved changing their current ways of creating curriculum and developing learning. Partly this uncertainty was because of different understandings of CfW in the system. Partly it was due to ongoing perceptions that data-driven evidence of learner performance and 'standards' is still required.
- One way to support shared understanding and coherent realisation is through collaborative curriculum making between experts and practitioners (Huizinga et al., 2019; Voogt et al., 2015). Working from that premise, we found practitioners to be both enthusiastic and able curriculum makers using a process approach. The clarification of CfW as aligning with the process model of curriculum design enables curriculum making that is coherent while preserving subsidiarity.
- Across all three strands of the data set, participants thought that it was more difficult to realise CfW in secondary schools than in primary schools. Reasons included: examinations backwash and a perceived need to cover content in a tight timeframe to prepare learners for national qualifications; timetabling restrictions; the legacy of using metrics and quantification for accountability purposes.
- Education Support Partners were conscious of the complexity and scale of curriculum reform and the need to work with system professionals 'where they are at' in relation to the reform journey. It was important to work with system professionals sensitively, empathetically, and collaboratively.

- Teacher education partnerships play an important role in supporting student teachers to understand CfW in practice. Teacher education partnerships encourage the development of knowledge and understanding relating to curriculum design and curriculum making, pedagogies, assessment, additional support for learning needs, and enquiry and reflection. The different ways that CfW is being understood and realised in schools brings some challenges for this work, but teacher educators encourage students to see the curriculum framework as one that encourages professional agency and autonomy.

Implications

- Clarifying *Curriculum for Wales* as aligning with a process model of curriculum helps to avoid confusion over the nature of CfW and how to realise it. It also helps to resolve some of the challenges to curriculum realisation that arise when the curriculum is understood and realised in different ways that are sometimes incompatible with each other. This clarification does not introduce anything new - *Curriculum for Wales* by its nature has always aligned with a process model, whether that was made explicit or not at the design phase (see sections 3.2.4 and 7.1.2). Understanding how to work with CfW as a process model helps those across the system to take a more coherent approach to curriculum making, assessment and learning progression that focusses on the developmental nature of CfW in relation to the four purposes.
- The project has demonstrated that using Curriculum Design Teams (drawing on the work of Handelzalts et al., 2019) and a curriculum design workshop provides an effective approach to supporting curriculum making using a process approach to *Curriculum for Wales*. This approach could readily be used to scale up and build capacity in curriculum making across the system. It should be noted that this approach works with the curriculum framework, guidance and mandatory elements as they currently are and is in keeping with the nature and purposes of CfW. Therefore there seems to be no need for additional guidance documentation if CfW is clarified as a process model.
- Practitioners have demonstrated that they are enthusiastic and able curriculum makers using a process approach. However, the role of leadership in encouraging this is vital. To ensure this can be sustained and developed, the system more fully needs to give leaders and practitioners permission to shift from a performative approach to 'measuring' attainment and quality, to more nuanced professional evaluations of learning and development (of and towards the four purposes).
- Insufficient clarity over the nature of *Curriculum for Wales* at its inception has led the system to pull in different directions in relation to its realisation. For some schools and settings this means that realisation has been 'a long continuum' of evolving understanding. However, it is important to bear in mind that complex and 'profound' educational change takes time, 'and consequently so does witnessing the results of change' (Gouëdard et al., 2020, p.17). As a result, curriculum realisation still needs to be supported in the system. As part of this, Education Support Partners and teacher education partnerships will be vital to sustaining a coherent approach to the on-going realisation of CfW. As one group of Education Support participants said: there is a need to have 'the whole system talking as one voice, because it does feel at times as though there are lots of disparate messages' where things can 'get lost in the cracks'.

List of abbreviations

CfW	Curriculum for Wales
AoLE	Area of Learning and Experience
HEI	Higher Education Institution
NNC	National Network Conversation
OECD	Organisation for Economic Co-operation and Development
UoG	University of Glasgow
UWTSD	University of Wales Trinity Saint David
WG	Welsh Government

Terms used in the report

Practitioners:	Professionals working in schools and settings.
Partner primary schools:	A group of primary schools whose learners usually progress to a single secondary school.
Tier:	The Welsh education system is structured over three 'tiers': the Welsh Government occupy Tier 1; regional consortia, local authorities, Estyn, Qualifications Wales and HEIs occupy Tier 2 (referred to as Education Support Partners in this report); schools and settings occupy Tier 3. (The system is in the process of reviewing these terms and structures.)
The Four Purposes:	The four purposes of <i>Curriculum for Wales</i> are the shared vision for every child central to the curriculum and processes of learning. https://hwb.gov.wales/curriculum-for-wales/designing-your-curriculum/developing-a-vision-for-curriculum-design/#curriculum-design-and-the-four-purposes
Principles of Progression:	Five principles of progression underpin progression in CfW's Areas of Learning and Experience. https://hwb.gov.wales/curriculum-for-wales/designing-your-curriculum/principles-for-designing-your-curriculum/#principles-of-progression
Progression Code:	The Progression Code sets out mandatory requirements for school curricula with respect to progression. https://www.gov.wales/curriculum-wales-progression-code
Hwb:	The Welsh Government's online repository to support teaching and learning in Wales https://hwb.gov.wales/

1. Introduction

This report shares findings from Phase 3 of the *Camau i'r Dyfodol* project. The project began in 2022 and was designed to support education professionals to advance practical understandings of progression in the context of *Curriculum for Wales* [CfW]. The project team involves researchers from University of Wales Trinity Saint David and the University of Glasgow, working in collaboration with Welsh Government.

The *Camau i'r Dyfodol* project has four phases. Phase 1 explored understandings of progression and how these were being translated into practice in schools and settings. Phase 2 focused on building knowledge of learning progression with participants in response to collectively identified priority areas. Phase 3 supported curriculum realisation by creating shared understanding of working with CfW as a purpose-led process-oriented curriculum. Phase 4 will consider how to sustain curriculum change beyond the life of the project.

1.1 Research context and ways of working in the project

Curriculum for Wales (CfW) was introduced to provide a broad and balanced education for children and young people aged 3-16. Central to CfW are four purposes which provide 'the starting point and aspiration' for curriculum making (Welsh Government, 2022, np). The purposes capture the aim that every learner will be supported to develop as:

- ambitious, capable learners, ready to learn throughout their lives;
- enterprising, creative contributors, ready to play a full part in life and work;
- ethical, informed citizens of Wales and the world;
- healthy, confident individuals, ready to lead fulfilling lives as valued members of society (Welsh Government, 2022, np).

The four purposes are not just the end point of the curriculum journey: progression towards them is ongoing. To support progression, assessment is seen as 'an integral part' of learning, and learners are viewed as 'active participants' in learning (Welsh Government, 2022, np).

Co-construction has been central to creating and realising CfW. Practitioners have become curriculum makers (OECD, 2020), working in clusters, consortia and other networks to co-construct understandings of progression and assessment. Co-construction was also central to our way of working in the *Camau i'r Dyfodol* project. The research design is based on the principle that change led by those at the heart of an education system provides the best opportunity for sharing expertise, building professional confidence, and fostering a coherent approach to curriculum change. The project team has worked with a range of education professionals and partners in Wales, bringing together complementary knowledge and experience to support understanding of curriculum and progression in practice.

The project facilitates thinking about what curriculum change means for participants as they adapt their professional roles to realise CfW. It also supports consideration of what the changes mean for the system in terms of new ways of thinking about accountability and professional practice. The project has encouraged broad engagement through research activities and events with professionals working in a range of schools, settings, and educational organisations as well as through National Network Conversations (NNCs).

1.2 Report structure

This report is structured around the findings from the Phase 3 research activities:

- Chapter 2 provides a reminder of the research design for the project and includes information about the aims, research questions, research activities, analytic approach, ethics, and data management.
- Chapter 3 provides context for the work we have done with system professionals on curriculum models and gives information on the approach to curriculum making used in the curriculum workshop.
- Chapter 4 outlines the findings from Strand A of the project, focusing on practitioners' perceptions of using a process approach to curriculum making.
- Chapter 5 discusses the findings from Strand B on how Education Support Partners view the changing nature of quality, professional learning, and learning 14-16 in the context of CfW.
- Chapter 6 focuses on findings from Strand C to understand how programmes of Initial Teacher Education in Wales are working with student teachers to support them to work with CfW.
- Chapter 7 discusses the findings from across all three strands of data analysis and relates this to research literature on curriculum reform.
- Chapter 8 answers the research questions and outlines the key messages from Phase 3, before discussing the implications of the findings for supporting and sustaining realisation.

At the end of Chapters 3-7 there is a summary of key points for ease of access.

2. Phase 3 research design

This chapter outlines the aims, research questions and activities of Phase 3 of the project. It also includes an overview of the approach to analysis, ethics, and data management. The chapter begins with information about the background to Phase 3 as this influenced the research focus and approach.

2.1 Research background to Phase 3

In Phase 1, we undertook discussions with education professionals in Wales to understand their perspectives on the new curriculum and its realisation. We also completed a review of literature on learning progression and developed a model of co-construction to support the work of the project in subsequent phases. In Phase 2, we worked with education professionals from across the system to co-construct practical understandings of progression and the curriculum itself. We also reviewed literature on curriculum implementation and interviewed international experts about approaches to curriculum reform.

Phase 1 found that schools and settings were at various stages in the journey towards understanding progression (Morrison-Love et al., 2023, p.29). In Phase 2, system professionals came together to identify priority areas to work on to extend their practical understanding.

It became evident early in the co-construction working for Phase 2 that *Curriculum for Wales* was being understood, and therefore realised, in very different ways (Makara Fuller, 2023, p.49). This meant that coherent curriculum realisation and a shared understanding of progression were difficult to achieve.

To support shared understanding of the curriculum and approaches to progression, we revisited the design of CfW. Co-construction thinking about curriculum theory and research, drawing on the knowledge and experience of system professionals and Welsh Government participants, led to the recognition that CfW aligns most fully with the process model of curriculum design (Makara Fuller, 2023, p.20). The co-construction group then created practical materials to support shared understanding of CfW across the system.

Building from this, Phase 3 was designed to work with system professionals to support curriculum realisation in practice using a process approach to curriculum making in schools and settings. The focus here is on supporting alignment between CfW and local approaches to curriculum content, pedagogy and assessment. Given the importance of professional learning to curriculum realisation, Phase 3 also explored what the new curriculum might mean i) for professional learning with qualified practitioners through discussions with Education Support Partners (Strand B), and ii) for student teachers through discussions with professionals working in Initial Teacher Education (Strand C).

2.2 Aims and research questions

The aims of the *Camau i'r Dyfodol* research project are to:

- Develop ways of thinking and practice about curriculum, assessment and pedagogy by developing a shared understanding of learning progression at different levels in the education system in Wales.
- Co-construct manageable approaches to sustainable change that account for local contexts and maintain professional and system integrity.
- Provide a knowledge base for on-going understanding of learner progression that will be coherent across different parts of the education system and will support participants in exploring and developing expertise and new ways of thinking.

Phase 3 research contributes to these aims, and builds on findings from Phase 1 and 2, by exploring the following research questions:

1. What are practitioners' perceptions of working with a process approach to curriculum making in relation to *Curriculum for Wales*? (Strand A)
2. What do Education Support Partners perceive are the implications of a process approach to *Curriculum for Wales* for: quality in the system, professional learning, and learning 14-16? (Strand B)
3. How are Teacher Education Institutions working with student teachers to support their understanding of *Curriculum for Wales* and how to realise it in practice? (Strand C)

2.3 Research activities

We designed this phase of the project around 3 activity strands (A, B and C). Each strand continued the co-construction approach taken in Phases 1 and 2. This section provides an overview of the activities involved in each strand. (The data collected from the activities is discussed in section 2.4.)

2.3.1 Strand A: Curriculum design and curriculum making

This strand was designed to support coherent practical understandings of curriculum design and curriculum making in relation to CfW. In Strand A activities, and in this report, we distinguish between *curriculum design* (the original design of the curriculum framework and documentation) and *curriculum making* (the creation of learning and teaching locally, aligned with the original intentions of the curriculum design).

Drawing on the findings from the Phase 2 literature review on curriculum realisation, members of the *Camau i'r Dyfodol* project formed curriculum design teams with practitioners from schools and settings to support curriculum realisation in practice. To do this we modelled an approach to curriculum making that focuses on processes of pupil development and learning during a two-day workshop. The approach here also drew on the findings from the Phase 2 co-construction activities together with theoretical knowledge of curriculum design and professional understandings of curriculum making.

Schools and settings involved in this strand developed and taught two topics for a chosen AoLE¹. The schools participating in each AoLE formed a support network of critical friends to work on curriculum making with practitioners in their own settings. They then taught the topics they created, before coming together at two online sessions and two further in-person days to discuss the teaching of their units. Researchers then visited 13 participating schools to interview staff about the process of creating their topics. These visits helped us to understand how practitioners were creating the curriculum locally.

2.3.2 Strand B: Professional learning, quality, and 14-16 education

This strand provided a co-constructive space for sense-making and collaborative learning with members of Welsh Government and Education Support Partners. The co-construction activities began by engaging with the Phase 2 practical support materials and a focus on key findings, evidence and implications from Phases 1 and 2. Following discussion and sense-making, members of the Strand B co-construction group were encouraged to consider what these co-constructed understandings might mean for their own work in relation to professional learning, quality, and 14-16 education.

The work of the Strand B co-construction group was supported by in-person events, online sessions, and an online learning area. In addition, Welsh Government worked with the *Camau i'r Dyfodol* project team to identify opportunities for members of this strand to integrate with existing events and initiatives across the system. This supported participants to think about how curriculum change can be aligned across the education system.

2.3.3 Strand C: Complementary research

This strand focused on university Schools of Education in Wales to understand how programmes of Initial Teacher Education are supporting understanding of CfW with student teachers. Strand C also contains supplementary research to explore CfW and how practitioners are working with each other to realise it in practice. This involves a document analysis of CfW to support further understanding of the nature of the curriculum, and a network analysis to help us to understand where teachers go for information and support in realising CfW and how helpful they find this support. The document analysis will be released with the Phase 4 report, and the network analysis will form a supplementary report due later in 2025. We separated these elements from participant data because we wanted the Phase 3 findings to focus on the voices of system professionals.

1 24 schools and 42 staff members attended the curriculum design workshop.

2.4 Data collection and analysis

We collected a range of data across the activities involved in the three strands (see Table 1).

Strand	Activity	Data
Strand A	2-day curriculum workshop (February) 2 Twilight sessions online (February and September) 1-day workshop (June) 1-day workshop (September) School visits (June and November) (7 primary; 3 Special Education; 3 Secondary)	Participant inputs from workshop activities (post-it notes, flip charts, feedback) Researcher notes from workshops Transcripts from online sessions Examples of curriculum making from schools and settings
Strand B	3 in-person days (April, June and November) 3 Twilight sessions online (June, September and November)	Participant notes and thinking from co-construction group activities (flip charts, post-it notes) Researcher observation notes Transcripts of whole group and break-out group discussions
Strand C	Interviews with ITE professionals in Schools of Education in Wales	Transcripts of 5 interviews (three focus group and two individual)

Table 1: Outline of Phase 3 strand activities and data collection

We analysed the data from each Strand using Braun and Clarke's (2019) Reflexive Thematic Analysis (RTA). Thematic analysis focuses on identifying 'patterns of meaning' in qualitative data (Clarke & Braun, 2017, p.297). RTA adds a more strongly reflexive approach to the analysis process than conventional TA. This reflexive approach highlights the researcher's active role in knowledge production (Braun & Clarke, 2019).

The first stage in RTA is to transcribe the research data and read the transcripts to become familiar with the data (Braun & Clarke, 2019). Interviews and twilight sessions were held online, and transcripts downloaded from zoom. One researcher reviewed the transcripts for accuracy, before several team members then took part in the first stage of the RTA which involves familiarisation with the data. Braun et al. (2023) highlight the importance of this stage: it provides the foundation for the analysis and should not be rushed. Several members of the research team read the interview transcripts and made notes of what struck them as interesting and worth exploring further (see Braun et al., 2023, p.28). These notes were collated into one initial sensemaking document. Two researchers then coded the transcripts independently, before coding other data (such as participant notes or researcher notes) and creating separate coding tables. The coding tables were then crosschecked to consider similarities and differences: this process strengthens the dependability of the findings (Maher et al., 2018).

Coding can be carried out at a semantic level (using surface meanings) or at a latent level (using interpretative meanings) or using a mixture of both (Braun & Clarke, 2024). We coded at the semantic level to foreground participant views and understandings. We also used inductive coding which develops codes from the data using participants' own words. (In contrast, deductive coding defines codes *before* analysis and applies these to the data.) Themes were then created by considering how the inductive codes and the text associated with them might be combined. Each theme was then organised into subthemes.

It is important to note that we have foregrounded participant voice in reporting the findings. Partly this is a way of showing how the themes have been arrived at. Reporting at too high a level leaves a great deal to trust in terms of how themes were created from the data. Illustrating themes with quotations provides greater transparency in relation to the choices the researchers made. Most importantly, however, the decision to foreground participant voice was in keeping with the values of co-construction and respect for professional knowledge and practice that sit at the heart of the *Camau i'r Dyfodol* project. While we appreciate that the reporting chapters are detailed, participant insights provide important knowledge about curriculum realisation in the context of Wales, and for curriculum realisation generally.

2.5 Ethics and data management

Ethics approval for *Camau i'r Dyfodol* was granted by the ethics committees of UWTSD (Application Reference: EC974 PG2) and UoG (Application Reference: 400210149). Because of the co-constructive nature of the project, it was not possible to specify all research and data gathering activity at the start of the project. Instead, ethics amendments were submitted for approval as the project progressed. As in Phases 1 and 2, all Phase 3 participants were provided with project information via a Participant Information Sheet and given time to reflect and ask questions to ensure that their choice to participate was fully informed. Participants were made aware that they were free to withdraw at any time without giving any reason and were asked to give explicit consent for their participation. They were also informed that data would be de-identified, and individuals referred to using pseudonyms and/or general labels. Ethical approval for Phase 3 was granted in advance of data gathering activities.

In addition, we were guided in the conduct of the research by the concept of *trustworthiness*: what Williams and Morrow (2009) call 'due diligence' (p.576). This due diligence involves establishing and communicating a rationale for the research, clearly describing the data collection procedures and analytic methods, and providing a clear interpretation of the data (Williams & Morrow, 2009, p. 576). To further support trustworthiness, we were guided by the concept of *methodological reflexivity* (Olmos-Vega et al., 2023, p.245). This process involves consistent critical reflection and 'thoughtful consideration' (Olmos-Vega et al., 2023, p.245) of why certain methodological decisions have been made and what the implications of these could be for the participants, the analysis, and the reporting. At each stage of the research, this process has involved lengthy and frequent discussions between the analysts and report writers in the research team and the principal investigators.

The project's Data Management Plan specifies the protocols and approaches used to ensure the data set is fully compliant in relation to processing, storage, and sharing of data. This has been particularly important given that a central part of the project has been the development of a data set that is used to generate new knowledge in response to the project's research questions. The data set also informs successive phases of the project, supports evaluation and reporting to Welsh Government, and feeds knowledge back into the system to support sustainable change.

3. The Phase 3 approach to supporting curriculum making in practice

As mentioned in Section 2.3.1, Strand A was designed to support coherent practical understandings of curriculum design and curriculum making in relation to *Curriculum for Wales*. This chapter first explains the key elements of the Phase 2 literature review that informed our knowledge about the importance of supporting professional understanding during curriculum reform. It then explains the curriculum models that were used during Phase 2 to support understanding of curriculum design in general and CfW in particular. It ends by outlining the Phase 3 curriculum workshop to explain how practitioners created topics using a process approach to curriculum making in relation to the framework and mandatory elements of CfW.

3.1 Revisiting the Phase 2 literature review: key findings

The approach created for Strand A draws on the literature review we carried out for the Phase 2 report: *Building practical understandings of Curriculum for Wales* (Makara Fuller et al., 2023). This review focused on international research and theory on curriculum realisation. It highlighted three things:

1. The importance of coherence and clarity in curriculum realisation processes. This refers to two aspects: clarity and consistency of the curriculum framework (including clarity and consistency of its aims, purposes, content and pedagogic approaches), and coherence in how system professionals understand the curriculum as they enact it (Makara Fuller et al., 2023, p.28).
2. Curriculum realisation relies on sensemaking as system professionals 'translate' the curriculum from policy into practice. Common understandings across a system are key to successful realisation: the process of translation therefore needs supported. Where a curriculum framework is complex or lacking clarity, it can be difficult to enact (see Makara Fuller et al., 2023, p.40).
3. Practitioners must be supported to become curriculum makers, particularly where a new curriculum requires a radical shift from delivering a content-focused curriculum. This support requires a balance between top-down clarity about the curriculum (and its realisation) and bottom-up practitioner autonomy and collaboration to understand the curriculum in practice. Too strong a direction from the top can mean that practitioners lack a sense of curriculum ownership and commitment (see Makara Fuller et al., 2023, p.42). However, too much autonomy in interpreting the curriculum can lead to confusion and ambiguity (Makara Fuller et al., 2023, p.42).

Our Phase 2 review of international literature on curriculum reform found that a less prescriptive curriculum such as CfW runs the risk of creating inconsistent understandings in an education system (Sinnema et al., 2020). There is then potential for 'substantial variations' to arise in how the curriculum is enacted (Alvunger & Wahlström, 2021, p.239). The original intention of the *Camau i'r Dyfodol* project was to support education professionals in Wales to advance practical understandings of progression in the context of CfW. However, understanding progression cannot be done in isolation from understanding the curriculum.

CfW has been described as a *purpose-led curriculum* (Addysg Cymru/Education Wales, nd; Duggan et al., 2022; Golding & Place, 2023; Thomas, 2024). This description explains the fact that *Curriculum for Wales* leads towards and develops four purposes, but it does not make clear the underlying theoretical basis or philosophy of the curriculum design. Our research in Phases 1 and 2 indicated that this lack of clarity might be making it more difficult to create shared understanding of how to work in alignment with the curriculum framework (see Makara Fuller et al., 2023). However, our Phase 2 literature review gave examples of good practice to support system professionals during curriculum realisation based on collaborative curriculum making between curriculum design experts and practitioners (Voogt et al., 2015; Westbroek et al., 2019).

The examples centred on the following aspects: curriculum analysis and design, developing curriculum in practice, and a focus on the importance of internal and external consistency and alignment between the intended and enacted curriculum (Voogt et al., 2015; Westbroek et al., 2019). The approach to the Phase 3 workshops and online sessions drew on these ways of working to focus on:

- understanding CfW in relation to known curriculum models (based on co-construction working with system professionals in Phase 2);
- practical examples of working with CfW using a process approach to curriculum making;
- and the importance of alignment and consistency in designing topics in relation to the elements of CfW's framework.

3.2 Curriculum models: understanding content, process and product

McKernan writes that all curricula are based on content that reflects 'publicly valued' knowledge, values, dispositions and skills (2008, p.56). However, approaches to curriculum design tend to cluster around three models which Kelly (2009) describes as: Curriculum as content; Curriculum as product; Curriculum as process. Each of these curriculum models has a different starting point and rationale, and each implies a different approach to teaching, learning, and assessment within its framework.

Poulton and Mockler (2024) suggest that understanding these curriculum models is 'central' to understanding the complex dimensions involved in curriculum making (p.22). During Phase 2 co-construction, *Camau i'r Dyfodol* participants worked with definitions of each curriculum model and considered CfW to align most fully with the concept of curriculum as process. Before we explain the process model in more depth, we will give a brief overview of each of the models using Kelly's categories as the starting point.

3.2.1 Curriculum as content

This view of curriculum focuses on content to be learned through school subjects. These subjects draw on the wider disciplines associated with them. Subject knowledge is considered intrinsically valuable. Education is also seen as intrinsically valuable because it leads to intellectual development. There is a focus on learning as the gaining of knowledge, but education is also seen as being about cultural transmission (Kelly, 2009, p.58).

The starting point for curriculum making with a content model is with 'decisions of content' (Kelly, 2009, p.56). Skills, values, and learner characteristics may also be considered, but subject content is where curriculum making begins.

3.2.2 Curriculum as product

This view of curriculum focuses on the products of learning and is generally based on aims and behavioural objectives (or learning intentions). Objectives are 'clear statements which seek to define what students know or can do as a result of their education' (Priestley, 2019).

This approach relates to behaviourist learning theory and is 'rooted' in the backward design approach developed by Franklin Bobbitt (c.1918) and refined by Ralph Tyler (c.1949) (Clark et al., 2024, p.766). Education and learning are seen in instrumental terms: they are valuable because of what they lead to, and what they enable a child or young person to be able to do. When a product approach has a strong content orientation, the result is a curriculum that focuses on Mastery Learning (see Kelly, 2009, p.83).

The starting point for curriculum making with a product model is to define learning objectives (or learning intentions) before working backwards to plan the content and pedagogies needed for learners to meet these pre-specified outcomes².

3.2.3 Curriculum as process

This view of curriculum was developed by Lawrence Stenhouse in the 1970s (Elliot, 2024; James, 2012). It is sometimes also known as the 'learner development' model (McKernan, 2008, p.24). The ways of thinking about curriculum, learning, assessment and teaching that underpin the process model are 'diametrically opposed to the ends-means rationality of the objectives model' (McKernan, 2008, p.95). For this reason, the process and product models of curriculum are 'viewed as incompatible' (Priestley, 2011, p.277). Curriculum documents based on the process model are no longer framed as sets of outcomes but as statements of principles, values, and pedagogical/learning 'procedures' (Stenhouse, 1975) that will support the realisation of curricular/educational aims (McKernan, 2008). The view of education that underpins the process model is not about 'hitting targets' but 'traveling with passion and being interested in worthwhile experiences' (McKernan, 2008, p.4).

2 This approach often uses taxonomies such as Bloom and colleagues' classification framework (see Armstrong, 2010) or John Biggs' SOLO (Structure of the Observed Learning Outcome) to define learning outcomes against which learning is assessed.

The starting point for the process approach to curriculum making is to identify aims that relate to the nature of the child and their human development (Kelly, 2009; McKernan, 2008). A process approach balances *what* is to be learned with emphasis on *how* and *why* it is to be learned through consideration of which learning processes might be 'educationally worthwhile' in relation to curriculum aims and learner development (see Elliot, 2024).

3.2.4 Why are theoretical models helpful in curriculum design?

Kelly (2009) states that 'curriculum planning requires a full recognition of the deep conceptual differences' that different models represent in relation to education and curriculum, and in relation to 'the fundamentally different forms of practice they lead to and demand' (p.115). Curriculum models are based on

quite different views of the purposes of schooling, quite different concepts of education, knowledge, society and, indeed, humanity, and, as a consequence, quite different notions of the role of subject-content in the curriculum and the basis for selecting this, as well as offering quite different schemes for educational practice (Kelly, 2009, p.114).

This is not just about theory in the abstract: the theory has implications for practice. As Kelly writes, because the curriculum models are distinctive in terms of their underpinning philosophies, this means that they require different approaches to practice and different understandings of learning.

Therefore, Kelly (2009) argues that it is important that 'anyone undertaking curriculum planning should be absolutely clear about the fundamental conceptual and, more importantly, ideological differences' between the curriculum models (p.114). Understanding this enables curriculum planners to provide 'clear reasons for the choices they make' in relation to curriculum design, make informed choices about the nature and purpose of the curriculum, and provide clarity by 'setting out quite clearly... the curriculum model adopted and the reasons for its adoption' (Kelly, 2009, p.115).

Sinnema et al. (2020) explain that *Curriculum for Wales* is 'typical' in many ways of the 'new curriculum policy' that has become a global feature since 2000 (p.181). This policy emphasises curriculum not as content-led and subject-centred but focused on learners and their active role in learning (Sinnema et al., 2020, p.182). As Kelly (2009), notes, modern curricula tend not to make explicit links to curriculum theory (p.115). Priestley (2011) also comments that modern curricula represent a 'technical' approach to curriculum policy that 'seemingly fails to recognise decades of curriculum theory' (p.227). This can lead to a curriculum which is 'prone to difficult problems in its implementation' particularly where it mixes models that are not compatible (Priestley, 2011, p.227). As Kelly (2009) writes, not paying attention to theory during curriculum development can result in a curriculum that is a conceptual 'muddle' (p.115) which lacks the clarity needed for effective implementation (p.130). There is then a risk that the curriculum innovation will fail even with extensive support for system professionals (Huizinga et al., 2019; Kelly, 2009).

In setting out Kelly's models as a way of thinking about curriculum design, we do not want to give the impression that curriculum design or curriculum making is straightforward. The creation of curriculum documents and frameworks is only the beginning of a complex process of engagement and implementation, involving 'interpretation, mediation, negotiation and translation, across multiple layers or sites of education systems' (Priestley et al., 2021, p.1). We will return to some of these issues in Chapter 7 when we discuss what the data from Phase 3 suggest about curriculum making in the context of *Curriculum for Wales*, and more generally.

3.3 Focusing on process in curriculum design and curriculum making

3.3.1 Curriculum for Wales: purposes and process

McFlynn et al. (2024) explore the influence of Stenhouse's process approach on curricula that emphasise 'local flexibility in curriculum making, the positioning of teachers as autonomous curriculum developers and connecting learning across disciplinary boundaries' (p.638). These include the *Northern Ireland Curriculum* (2007), *Curriculum for Excellence* in Scotland (2010) and *Curriculum for Wales* (2017) (McFlynn et al., 2024)³. McFlynn et al. (2024) highlight the 'close alignment' of *Curriculum for Wales* with the process model (p.540). To explain why, they reference Furlong et al. (2021) who point out that CfW is centred on aims that are 'unashamedly' progressive in philosophy, focused as they are on the 'whole child' (Furlong et al., 2021, p.62).

3 In 2006, Gillies stated that Curriculum for Excellence was characteristic of 'curriculum as process and not content' although he noted some tensions in its design in relation to the role of knowledge (2006, p.26). Priestley and Humes (2010) also note the elements of CfE that 'classify it as a process curriculum' but argue that the retention of sequential outcomes and the selection of content within discrete areas 'water(s) down' its potential impact as a process curriculum (p.355).

These aims are stated as four purposes (Furlong et al., 2021).

On the centrality of the purposes, Priestley and Xenofontos (2021) state that *Curriculum for Wales* is part of a modern trend towards grounding the curriculum in purposes that are 'intended to drive practice' (p.5)⁴. They relate this trend to the influence of the process model, commenting that it is a 'more constructive' approach to curriculum design than the content or product models because it is 'grounded in clear educational purposes' and the processes 'necessary to achieve them' (Priestley & Xenofontos, 2021, p.5).

3.3.2 Learning processes, human development, activity and experience

The process model focuses on processes of learning and human development. McKernan writes that a process approach to curriculum making is

about designing curriculum in the absence of objectives. The underpinning idea is to develop a curriculum based on a theory of educational experience, rather than behavior change. The central ingredient is experience, rather than behavior. (McKernan, 2008, p.4)

A process curriculum still has overarching aims, but it does not break these down into objectives to be met because the aims are not seen as being extrinsic to learning. Instead, the aims arise from the principles of learner development that are central to this model of curriculum design.

Using a process approach to curriculum making does not mean that there is a lack of content or knowledge, or that the teacher becomes only a facilitator of learning. In a process curriculum, the knowledge and content of the curriculum is not chosen with reference to its presumed 'intrinsic value' or 'its assumed effectiveness in securing certain extrinsic aims or objectives' (Kelly, 2009, p.90). Instead, knowledge is selected 'in relation to its likely contribution to the development of the pupil' and in relation to the purposes of education that the curriculum is framed around (Kelly, 2009, p.90). These purposes are not 'goals to be achieved at some later stage... but procedural principles' which should guide educational practice in considering what is to be learned, how and why (Kelly, 2009, p.90).

In all of this, teachers' professional judgement is central, as is knowledge of subject areas, learners and pedagogies. As James (2012) highlights, the process model was not designed to begin with pupil interests and then 'steer' these towards what might be worthwhile (p.3). Instead, it begins with the teacher's judgement about what it would be worthwhile for pupils to learn and then considers how to teach this in a way that creates engagement and interest (James, 2012, p.3). A process curriculum is therefore not child-led but *is* responsive to learners' needs and interests. It does have some emergent aspects in that teachers can alter teaching and learning in response to learner interest, but the topic as a whole and the approaches to teaching, learning, content, and assessment are designed by the teacher.

Kelly (2009) also mentions the important role of activity and experience in the process model (p.89). Experiential and active learning are central to supporting learners' intellectual, social, and emotional development (Kelly, 2009, pp.89-90). Enquiry-based learning is often a key element in a process curriculum (McKernan, 2008, p.64). Importantly, the process model also highlights assessment as integrated with curriculum and pedagogy. Assessment is not about measuring performance against intended learning outcomes; it is a qualitative evaluation and must itself be educationally worthwhile. As McKernan writes: 'Assessment should support student learning not set out to "prove" what she or he has learned' (McKernan, 2008, p.211).

As Kelly (2009) argues, the process model reflects 'more accurately' the realities of truly educational practice than the content and product models (p.112). He writes that teaching, if it is to be educational, cannot only be about subject matter or seeing learning as linear and step-by-step (Kelly, 2009, p.112). Instead, teaching that is educational 'requires the making of day-to-day and even minute-by-minute decisions; it is a complex process of dynamic interaction between teacher and taught' (Kelly, 2009, p.12). The process model therefore reflects a view of teaching as grounded in professional knowledge, experience, wisdom, and reflection (McKernan, 2008, p.110).

4 Priestley states elsewhere, writing with Hizli Alkan, that CfW 'indicates a process model' (Hizli Alkan & Priestley, 2018, p.3).

3.4 The curriculum making workshop

We drew on the work of Handelzalts et al. (2019) on the use of curriculum design teams to support practitioners' curriculum making. We organised a 2-day in-person event at the start of Phase 3 during which practitioners modelled working with CfW using a process approach to curriculum making. The workshop was based on understandings of a process approach to curriculum design drawing on the work of Stenhouse (1975) and McKernan (2008). We explained key aspects of the process approach to curriculum making and modelled how to use these in relationship with the CfW framework, guidance and mandatory elements. This way of working with CfW involved three overarching elements:

1. Establishing a focus for a topic⁵ and its associated educational aim(s).
2. Identifying the educational processes, pedagogies, activities, and experiences involved in teaching and learning.
3. Considering how learning will be assessed.

These elements were explored using the idea of educational worthwhileness (which is a central concept in the process approach). This relies on practitioners' professional knowledge and judgement of what would be educationally worthwhile for their learners to engage with in relation to the knowledge and skills that will support development of the four purposes. It is also important to stress the iterative nature of working with these three elements. They should not be seen as linear steps – it is more likely that consideration of the various elements will be moved between during curriculum making.

Practitioners worked in AoLE groups and came to the event having selected an AoLE to work in, and with an initial idea for a topic that would be relevant for their learners. Decisions on relevance were entirely based on practitioners' professional judgement and knowledge of learners and their local communities. Practitioners began the workshop by thinking through the worthwhileness of the topic as a basis for creating a broad educational aim (or aims) for the learning. The practitioners then began to relate specifically to the different elements of CfW, starting with the four purposes and then the Statements of What Matters to consider which of the four purposes and Statements of What Matters the learning would develop. As they considered what content might be included, the practitioners also related to the Descriptions of Learning and the twelve Pedagogical Principles to consider what educational processes, activities and experiences would support worthwhile topic learning, and which integral skills might be developed. Finally, they considered how they might assess learning. We encouraged practitioners not to let progression *drive* the process of learning but to see progression as something that should emerge from learning. The CfW Principles of Progression were therefore not related to during the workshop but would be related to by practitioners as they developed their topic following the workshop.

The in-person event provided the starting point for practitioners to take their chosen topic forward in their own schools and settings with their classes. Two examples of topics are provided in Appendix 1 as illustrations of a process approach to curriculum making from primary and secondary participants.

3.5 The symposium

A symposium was held at the beginning of April 2025 to enable participants to share insights and reflections on their curriculum making during Phase 3 of the *Camau i'r Dyfodol* project. The symposium was not designed to share fully developed or 'finalised' practice, nor to suggest that all approaches were fully aligned with a process curriculum. Instead, the symposium was about reflecting on the journey participants had been on in relation to working with a process approach, and what some of the 'knots' and challenges were that they had to work through. It also allowed for discussion of the possibilities of further developing process-oriented approaches to realising CfW beyond the life of the project.

Practitioners from primary, secondary and special schools presented examples of curriculum making as part of the symposium, although existing commitments meant that not all schools and practitioners from Phase 3 were able to participate. The project team felt that it was important that the symposium remained a space for the practitioners to share thinking and took the decision not to gather or analyse any research data from the event. Discussions throughout the day explored the following: the role of teachers and senior leaders in developing confidence around a process approach to curriculum creation; the place of worthwhileness in relation to decisions about teaching, planning and assessment; and how the process approach had influenced learning, engagement and behaviour. Practitioners also discussed what was challenging about moving to different ways of thinking about and creating teaching and learning in their classrooms and what these experiences mean for their own practice going forward.

5 This does not mean that we began with defining content. This element related to the choice of a topic at its highest level, thinking through why learning about this would be worthwhile, and how it would support development of the four purposes (the highest level aims of CfW). No decisions about content were made at this point.

3.6 Summary of key points

- Our work in Phase 3 builds from understandings gained from the Phase 2 review of international literature. This literature states that less prescriptive curricula risk inconsistent understandings in a system. This in turn risks incoherent practices and approaches. Adding documentation after publication of a curriculum can lead to more confusion rather than greater clarity, especially if the volume of additional guidance makes navigation challenging.
- It was important during Phase 2 to clarify the nature of *Curriculum for Wales*, working with project participants. To do this we used Kelly's (2009) curriculum models: curriculum as content, product, or process. Each has a different starting point and rationale for curriculum making, and each implies a different approach to teaching and learning. Phase 2 participants agreed that CfW most fully aligns with the process model of curriculum design.
- The process model of curriculum design focuses on processes of learning and human development more fully than other curriculum models. It does not begin with content to be transmitted, or behavioural objectives to be met, but with the learner development that the curriculum aims to support. The overarching aims of a process curriculum arise from these developmental intentions: in the case of CfW these relate to the four purposes.
- The process model does not mean that there is no content, or that the teacher becomes only a facilitator of learning. Teachers' professional judgement is central to the process model, as is their knowledge of subject areas and understanding of their learners. A process curriculum is also not child-led but *is* responsive to learner needs and interests. Teachers design the overall approaches to teaching, learning and content, but they can develop and alter these in response to learner interests. Knowledge is developed not through delivery of content but through experiential and active learning that develops learners intellectually, socially, and emotionally.
- To build on these understandings, Phase 3 of the *Camau i'r Dyfodol* project worked with practitioners to develop topics using a process approach. Practitioners then taught these topics in schools and settings. Two examples are provided in Appendix 1.

4. Working with CfW as a purpose-led process-oriented curriculum: practitioners' perspectives

As we discussed in Chapter 3, Strand A was designed to support practitioners to understand curriculum design and curriculum making using a process approach. The emphasis was on ensuring alignment between the CfW framework and curriculum content, teaching methods, assessment, and progression developed in schools and settings. The findings reported here explore practitioners' perspectives on using a process approach to curriculum making in relation to the *Curriculum for Wales* framework and mandatory elements.

The research question we explored was: *What are practitioners' perceptions of working with a process approach to curriculum making in relation to Curriculum for Wales?*

4.1 Approach to analysis

Data were collected from two in person events (the first in Cardiff and the second in Swansea), two online twilight sessions, and school visits to 13 schools for interviews with participating staff. The data sources are coded as follows:

Source activity	Code
Online workshop, April	OWA
In-person workshop, Cardiff, February	IPCF
In-person workshop, Swansea, June	IPS
In-person workshop, Cardiff, November	IPCN
Twilight session April	TWA
Twilight session September	TWS
Primary school visit (1-7)	PSV1...7
Secondary school visit (1-3)	SSV1, 2, 3
Special school visit (1-3)	SpV1, 2, 3

Table 2: Activity codes

Using Reflexive Thematic Analysis (RTA), we organised the data into four themes:

- Theme 1: Practitioners' perceptions of the process approach
- Theme 2: The effects of the process approach on learning
- Theme 3: Reconsidering assessment approaches
- Theme 4: Understanding the challenges at school and system levels

In discussing the findings relating to each theme, quotations are anonymised as fully as possible, although the location of the event is named. General identifiers are used for participants (e.g. Practitioner 1, 2, etc) and the groups they worked in during the project. The AoLE group coding is as follows:

Source AoLE	Coding
Expressive Arts	EA/AoLE
Health and Well-being	H&W/AoLE
Humanities	H/AoLE
Languages, Literacy and Communication	LLC/AoLE
Mathematics and Numeracy	M&N/AoLE
Science and Technology	S&T/AoLE

Table 3: AoLE coding for participant groups

We have strongly foregrounded participants' voices in reporting the findings. This makes Section 4.2 detailed, but it was important to highlight participants' own words wherever possible. This allows us to give a sense of the richness of the data but also respects the centrality of system professionals to the project.

4.2 Findings

Overall, practitioners were positive about working with a process approach to curriculum making. They described the approach as creating deeper engagement and understanding in relation to what was being learned and fuller learner involvement in learning processes. They also noted a more effective focus on quality of learning, inclusivity, and individualised learning experiences. In the November workshop, one participant reflected: 'Pupil engagement has been high, and the impact of the *Camau* sessions' on learner progress 'is clearly evident' [IPCN]. However, the process approach takes time, and that time was not always available. It was also more difficult to undertake a process approach in secondary schools because of timetable structures and the backwash effect of covering content for examinations. Secondary participants did show that it was possible to create learning using a process approach but felt that changes to timetabling and the new approach to GCSEs would support this approach to curriculum making more fully.

While some practitioners felt unsure in the first workshop in February 2024 about how to create learning using a process approach, by the second workshop most participants were enthusiastic and had seen tangible benefits. One said: 'I think the one thing that all teachers said is we should have done this... a long time ago'. To illustrate the approaches that practitioners took, we developed two 'school stories' (see Appendix 1) from practitioner interviews and workshop information. These schools were able to develop topics to trial the process approach fully. Other schools could not move fully to a process approach because the topics were decided at department or school level⁶.

We discuss the themes in depth in the rest of this section, emphasising practitioners' perspectives on the process approach, its influence on learning, and some of the challenges that were experienced.

4.2.1 Theme 1: Practitioners' perceptions of the process approach

4.2.1.1 'Going in the right direction' and 'doing what's right for the child'

Practitioners thought the *Camau i'r Dyfodol* inputs had given clarity on the process approach and reassured them that they were 'on the right track' with how they were thinking about, and realising, *Curriculum for Wales*. Comments included:

I think that this is probably the closest we've got to so far in, what - five years of working on this? - to 'ohh - we can define what our curriculum is'. I think we've just developed the understanding of... what the purpose of Curriculum for Wales is, you know what the thinking behind it is - what we're trying to achieve by that as a nation, not just as a school. [Practitioner 2, SpV1]

I mean, certainly having a chance to speak to other colleagues at different schools and get ideas of things that they were doing as part of the initial consideration of the process approach that was really helpful, when you could go around and see people - how their journey, of how they've got to maybe their experiences or the tasks that they're actually doing, the initial planning - I came away from them more confident that we were on the right track. [Practitioner 1, PSV6].

What Cardiff gave was an opportunity for us, not to refine what we're already doing, but to start from scratch. And I've been teaching for many years, and that's what you've seen: yes, there's a new curriculum or there's a new syllabus coming to GCSE, and you're trying to fit what you have into the new plan, which work you can reuse. But this time we had the two days where we just stopped and thought 'OK, what matters or what's worthwhile here? For us, what's worth doing?' And, yes, that really stayed in my mind. [Practitioner 1, SSV3]

One participant at the in-person workshop in Swansea said that it was 'lovely to be finally moving towards a curriculum that has children and learning at its heart'. A written comment at the end of the first in-person workshop said: 'Welsh education is going in the right direction'.

However, there were some initial concerns discussed at the Cardiff event, for example, one practitioner thought that the process approach felt like it gave 'less direction' and seemed to 'generate so much work' [Practitioner 14, IPCF]. Another was concerned that things might be 'removed' from the curriculum 'if some people don't consider them worthwhile' [Practitioner 16, IPCF]. Another practitioner noted that the one thing 'that really stuck out' from the in-person day was 'the difference across Wales of people's understanding of the curriculum' (Practitioner 1, PSV1).

6 In addition, two schools thought the workshops had validated their approach as process when they were using backwards design and SOLO. We are not suggesting that their approach was deficient in any way, just that they had not used a process approach.

This practitioner thought the day had provided clarity over the curriculum ('it was almost like a light bulb moment because I got it') but thought that the system had been 'bombarded' with information and the 'direction changed constantly about what we needed to use or add' [Practitioner 1, PSV1]. They felt that the process given at the in-person day for working with CfW was 'achievable' and that this 'was a huge thing' [Practitioner 1, PSV].

Once participants had developed their topic using a process approach and taught this to learners in their schools and settings, they were able to discuss the approach in depth. Comments included:

This is much more starting from what matters and working down instead of thinking about what we need to learn and then going up. It is much more pupil focused... What we've seen is that 'one size does not fit all' ... What my lessons look like compared to [the teacher's] lessons next door, they follow a different path. [Practitioner 1, SSV3]

What these children have achieved through this project is something that wouldn't have happened if I'd stuck to my own planning... The depth of knowledge and understanding and the ethical side, especially, has been priceless... I don't feel we've wasted a session... there hasn't been a session I haven't enjoyed... [Practitioner 1, PSV 5]

Practitioners also noted that they felt more professionally engaged in the learning and teaching and felt 'excited' and 'motivated' by the approach. One commented that they had 'enjoyed the term', another that they were 'excited to see where this leads next'. A third said: 'I can now be the teacher I always wanted to be.'

Some participants discussed the shifts in thinking about curriculum, teaching and learning that the process approach brought. A primary practitioner discussed the move from being 'content-driven' as potentially feeling 'uncomfortable for staff', but said it was a 'necessary uncomfortable' because it 'makes you stop and think *Why? Why am I doing it?* Or are we just going through the motions here...?' [Practitioner 2, PSV1]. Secondary science practitioners emphasized that their lessons focused on encouraging learners to develop a genuine interest in science. Another described how they had been working on developing activities that could help students reflect on their learning about farming without losing the connection to what would be assessed in the GCSE exam. (See School story 2, Appendix 1.)

Working with the process approach to curriculum making also underlined the importance of collaboration. Practitioner feedback noted how beneficial it was to have time and space to work together, hear other perspectives, and clarify their curriculum ideas at the workshops. Practitioners in the Mathematics and Numeracy AOLE discussed feeling stimulated and inspired by professional conversations and collaborative planning to create their topics [Observer notes, OWA, M&N/AoLE]. A primary practitioner explained that creating time for discussion was something that had also been valuable in school: 'what we'd used in Cardiff, I came back then and as a staff we followed that process. So, from the from the beginning, right through to the end, everybody was involved and everybody felt part of it' [Practitioner 1, PSV1]. However, participants in the Humanities AoLE indicated that time for reflection was difficult to find before involvement in the *Camau* project [Observer notes, H/AoLE, TS April].

4.2.1.2 Worthwhileness and flexibility: 'messier but more meaningful'

Deciding on what is beneficial for learners in a process approach centres on the concept of *worthwhileness*. For some practitioners, worthwhileness was related to learner interests. Participants from one primary school said that the first in-person day had prompted them to return to the school with the concept of worthwhileness and that this led to thinking about how to bring 'that creativity, that imagination, that awe and wonder back into our curriculum' [Practitioner 1, PSV7].

Overall, the concept of worthwhileness enabled depth of thinking on the why of learning:

Whichever aspect we did, we went back to why are we doing it? Is it worthwhile for the children in front of us? And it was going back to that all of the time - it was for the children in front of us in the classrooms, not children who've been here before or are coming. But those children, because we got very different cohorts and what works with some cohorts doesn't work with others. So, it's been really refreshing in a way to be able to be more flexible. [Practitioner 1, PSV1]

So that first day in Cardiff when that we talked about worthwhileness. It gave us a good amount of direction to say, right - that's what we need to come back to - Why is that worthwhile? If you're going to be doing that in your class, why is it purposeful for you to do it? ... Since we've introduced that into our language and our discussion, I think we've all been quite comfortable challenging each other over... why is that a worthwhile thing for your class to be doing? [Practitioner 3, PSV7]

I did like the question why is it worthwhile for the pupils to learn it? Because that's a good question for you to actually think 'is this a contemporary or topical theme that the kids in schools are going to need'... [for] them to be more informed in the current world? I think it can be, sometimes, that departments within the school... might think that they can continue to shoehorn old themes that don't have a place really in this new curriculum... So, if you answer that question, why is it worthwhile you kind of realise... it's not moving with this new curriculum format. [Practitioner 4, SSV1]

The centrality of worthwhileness to the process approach was therefore important to deciding on the content and the teaching and learning approaches for the topics that participants developed. A participant from a special school said that 'worthwhileness and purposefulness have just become part of our dialogue when we're talking about curriculum design and curriculum development. What's the point? Why am I doing it? And why do my class need it in particular?' [Practitioner 2, SpV1].

While some practitioners developed new topics during the curriculum workshops, others chose to review existing topics from a perspective of the process approach and considerations of educational worthwhileness. For example, humanities lessons in one school were reviewed with learner input to include more experiential learning (a beach clean and a visit to the coast to evaluate the impact of a landslide on a coastal path) [Observer notes, TS April]. Secondary participants also noted the importance of worthwhileness in relation to exam preparation. One noted that the 'why of learning' was important, but they also 'liked the fact that worthwhileness could be something like... "you need to understand this in your A Levels"'.

Feeling confident that I'm allowed to say this to the children has been nice... [Practitioner 1, SSV2].

Some participants discussed their changing mindsets about curriculum making. Not starting with the end in mind or using learning outcomes allowed flexibility and responsiveness to learner interests and needs. This created learning that was more inclusive and individualised. A secondary practitioner said: 'we want to stimulate discussion at the beginning and follow where the conversation goes, so on paper the plan has to be quite open-ended' [Practitioner 1, SSV3]. A primary practitioner said that previous schemes of work 'weren't really a benefit' other than that 'you could give them to someone else and they could teach your lesson for you...' [Practitioner 2, PSV6]. Their colleague said that planning 'was a paper task, wasn't it? It didn't help the learning at all. It was just ticking the boxes for coverage really' [Practitioner 1, PSV6].

Using a process approach, planning was 'messier' but more meaningful for practitioners: '[the plans] work for us, they help us with planning the learning for the learners, and the learners are involved in that as well' [Practitioner 2, PSV6]. Another primary practitioner [2, PSV7] noted that they had seen a range of approaches in other primary schools, some of which had been child-led, and others where practitioners had 'completely mapped out great ideas for topics and themes but mapped them out in a very structured way' [Practitioner 2, PSV7]. Their school took the view that they wanted to have a balance, where practitioners created topics but retained sufficient flexibility and responsiveness to children's interests and needs, and to opportunities that might arise from current events (locally, nationally or internationally).

4.2.2 Theme 2: The effects of the process approach on learning

4.2.2.1 Enthusiasm and engagement: slowing the pace and learning 'in the moment'

Participants emphasised that their process topics increased enthusiasm, involvement and engagement in learning, and developed depth of understanding of the purpose of learning and what was being learned. Comments included:

Well, in our projects, I think it's seeing how engaged the children are... That way of working works for so many children and it's inclusive. So, seeing what they're getting from it, it spurs you on, and... they're excited to come and do the next part of it. [Practitioner 1, PSV1]

Pupil engagement is strong. They're responding very well to this approach. Definitely. They look forward to it when they see it on the timetable: 'Camau - Yes!' [Practitioner 1, PSV5]

I think it's definitely having an impact... because, as part of our assessment cycle, we have parents coming in to talk to their children and for their children to show their parents what they've been learning... And the vocabulary and the language that they're using is definitely improving.... Rather than I've done this, I've done this, I've done this, it's becoming more 'I need to work on this because I want to get better at this for this reason'... They're able to tell their mums and dads, 'I've done this, but I know next time I've got to concentrate on that'. [Practitioner 2, PSV6]

A primary practitioner discussed a project on canals: 'that's what we want - that engagement with the learning... [one parent] said to us their child hadn't spoken about anything other than the canal for weeks... because they're so invested in the process of what they're doing' [Practitioner 2, PSV7]. Overall, participants felt that the topics enhanced learning because the approach slowed learning down by focusing on depth of learning rather than content coverage. Discussions during learning had been 'eye-opening' [M&N/AoLE, TS April]: there was time for conversations, for learners to achieve, discover and engage [Group 2, IPS, June]. One primary practitioner said that the slower pace contrasted with the more familiar 'clock watching' where 'every teacher has got an eye on the clock' to teach what they had planned [Practitioner 1, PSV5]. This practitioner felt the process approach had changed how they thought about timing: 'Don't worry about getting through coverage... I look forward to those sessions – the slowing down of the pace, the discussions with the children... Every time I feel I know my children better because of this approach' [Practitioner 1, PSV5].

4.2.2.2 The importance of responsiveness: 'more of a natural development of learning'

Across the data set practitioners discussed how learners were better able to see the purpose of learning with the process approach, and how practitioners were more able to make connections to learner experiences and the world beyond school. A secondary practitioner discussed how they were able to be responsive to learner needs:

So, talking about proportion... What happened was we started working on this with set 2, there's a farmer in the class and he asked, 'why do I have to do this?' Well - there is a lot of proportion work within farming in a way, isn't there? It is very relevant to someone from his background, but he didn't see that. And then, I say... 'how can we do this differently? How do you want to do it?' ... [H]e wanted to see a video, he wanted to see people using it in the real world, and so from there, we used Dragon's Den as an example. So, there's one part on Reggae Reggae Sauce... so looking at the clip, stopping the clip, looking to see what he's asking about it as a business model and therefore bringing the business model into the presentation. The children really enjoyed themselves. And then we were looking at them creating business models with the parameters we were setting for them... [Practitioner 1, SSV2]

Another secondary participant [Practitioner 1, SSV 3] reflected on the effect that responsiveness had on planning saying that they began 'with ideas of where we could go' but rather than knowing at the beginning of the lesson that the success criteria would shape where the lesson ended there were points where they had to think 'Where are we going now?' This involved a 'different way of thinking' for them as a teacher but also for learners: 'instead of [saying] 'what are we doing today?' [learners] know they have a role to play in what we do today, where we go, where we end up' [Practitioner 1, SSV 3]. There was therefore a greater sense of learning being a journey which felt exciting, motivating and interesting.

A primary practitioner spoke about the process approach allowing 'more of a natural development of learning' [Practitioner 2, PSV5]. They no longer had to 'shoehorn' part of the curriculum into lessons to make sure content was covered 'otherwise I won't be able to tick it off my plan' [Practitioner 2, PSV5]. This participant developed the money topic with a colleague (see Appendix 1). They felt the process approach enabled integral skills to emerge and learning to demonstrate progression. Their colleague said that when they reflected on curriculum documentation, they were 'amazed' at how much in the progression steps had been developed during learning: 'we've just highlighted the document, and it was yellow, yellow, yellow, yellow... We were really impressed actually...' [Practitioner 1, PSV5].

However, practitioners recognised that professional judgement is needed to ensure that 'tangents' are purposeful in terms of the learning. One special school practitioner explained:

It's a dynamic situation in that you've got in your head where you wanted to go, but they might take you somewhere else and sometimes you've got to... stop that tangent because it's not really going to be a purposeful one. Other times you think actually, yeah, this is this is a worthwhile detour on what we're looking at and follow that... and then come back to where you were heading on your longer-term journey. So, I think that's what keeps it lively and engaging and stops it being dull. [Practitioner 2 SpV1]

In addition, the shift from delivering content to a more facilitative role can take time to get used to. Practitioner 1 [PSV1] said: 'It's like you can see [practitioners are] desperate to be in charge of it... [But] then they'll come back, and they'll say, well, we've done this activity, and the children loved it, and they can see that it actually works.'

4.2.3 Theme 3: Reconsidering assessment approaches

The first curriculum workshop stressed that assessment does not drive processes of learning and teaching in a process approach, nor does it focus on performance against objectives. Instead, the focus is on evaluating and understanding learning in ways that support further learning and, more holistically, learner development⁷. Many practitioners had already reconsidered assessment approaches as part of realising CfW. There was a strong sense from the data of learner voice and interactions with learners as being important to thinking about assessment in relation to CfW and in relation to the process approach.

4.2.3.1 Perspectives on assessment: celebrating all children's achievements

Participants thought that assessment within a process approach should focus on the worthwhileness of learning and that assessment should be holistic, non-judgmental and relevant for learners. A special school practitioner said the process approach had 'brought assessment alongside the curriculum where it always should have been but maybe because of structural things and organisational things, it was always a bit over there and separated' [SpV1]. They felt this had a positive impact on learners and led to a more purposeful approach to assessment.

A secondary participant also discussed the idea of divergent assessment which moves away from assessment clustered around learning outcomes. They said: 'we really do now make sure... that [assessments] are all divergent towards these fuzzy outcomes. The outcomes don't have to be... set in stone' [Practitioner 4 SSV1]

A group of primary practitioners felt they had moved away from assessment that was 'bolt on' to a more purposeful assessment approached involving ongoing assessment as an 'open process' [Group 5 IPSM]. A special school participant found the process approach had led to assessment that was no longer based on targets and timelines [Observer notes, LLC/AoLE, TS April]. One primary practitioner noted that assessment is 'easier' when 'you can give a set of data and much easier when you can say look at these test scores' [Practitioner 2, PSV5]. However, they thought change was necessary if progression was to be 'natural and authentic': 'you've got to be open to thinking about things differently for Curriculum for Wales' [Practitioner 2, PSV5].

Practitioners discussed several approaches to assessment developed in schools to respond to CfW. One school trialled e-portfolios where learners self-select what they are going to include [Observer notes, Group 5, IPS, June]. During a school visit, one primary participant explained how best to assess progress:

I'd say talk to the children... ask them to share what they know and what they've learned. And I think possibly that's how we will assess this at the end. We will ask them to put together a presentation or a video or something like that. I think that's going to be the culmination using their vocabulary and getting them to share what they've learned.

That seems the natural way to tie it all at the end, when we've done the real life visiting and we, we feel like we have pulled together everything we can. I think I'd say to the children, how can you share what you've learned with us? [Practitioner 1, PSV5]

Other practitioners spoke about learning walks, pen portraits, and conversations with learners, but stressed that the approaches were non-judgemental [Observer notes, Group 3, IPS, June].

During the April in-person event, one special school participant said they were used to assessing learning on an individual basis, so this was already part of their practice [Observer notes, LLC/AoLE TS April]. In response to this, other participants discussed a range of approaches used to 'capture' learning and progress such as 'in the moment' assessment using videos, photos, and post it notes [Observer notes, LLC/AoLE TS April]. One school reported a shift towards 3-weekly reviews and a sense of greater willingness and openness to talk about learning and how learners feel about learning and where the learning can take them [Observer notes, LLC/ AoLE TS April]. One participant said during a school visit that the assessment in the process approach was 'fit for purpose... It's not me measuring my class against a separate set of criteria' [Practitioner 2, SpV1]. If they adapted the learning journey during the topic 'in response to the children' then 'I know the next assessment I'm going to do is still going to be purposeful because it will be reflective of what I've actually done, rather than what I just intended to do' [Practitioner 2 SpV1].

7 In the case of CfW, this development is of, and towards, the four purposes.

4.2.3.2 Moving from 'books' to a broader perspective: but sensing 'two systems'

Practitioners spoke about the change from a focus on evidencing performance in learner 'books' to a focus on a broader range of examples of children's engagement in learning. A primary practitioner [2, PSV7] said that when they started working in the school ten years ago, there was 'a huge amount of emphasis on work in books' in terms of volume of work and moderation. They discussed the change from this by talking about the enterprise project they had developed, where it became clear that the learners did not have a concept of the risks associated with business loans. The children played Monopoly as a concrete way of understanding risk: 'there wasn't anything in books to show that, but the level of conversation around that was brilliant' [Practitioner 2, PSV7]. In addition, the canal project work had gone onto a wall rather than being in books: 'from that wall you can see how much work has gone into that, and what the children have got out of it. So, that's changing my mindset' [Practitioner 2, PSV7].

One group at the November in-person day noted that it was important that learners were developing 'the language to talk about their progress', and that this was shared with parents and carers [IPCN]. Participants from special schools indicated that they had been using a variety of approaches to illustrate progress for some time. One explained the nature of the shift from a focus on performance to a focus on conversations about learning:

Over the many years I've been teaching, there's been many processes I've gone through in terms of pupil targets and their assessment. They've been dangling from the ceilings, they've been stuck on little things that flop out of the book, they've been folders full of things.

That was all just procedure. It looked good when someone walked into the classroom... Colour codes, stickers, stamps. [Now] it's effective because you're just sitting down with another human being going: 'How are you doing with these areas of your learning? What do you think that you need to work on next?' Or: 'oh, I think maybe we could work on that too. Let's work on that together'... There's no document. It's just straightforward with two people having a conversation about learning. And that's when it's most effective. There's no other stuff getting in the way. [Practitioner 2 SpV1]

Another participant [Practitioner 2, PSV5] felt that the process approach created some anxiety over assessment but 'liberated as well'. They said: 'with the professional conversations we're having after the *Camau* [topic] sessions, what we're learning about these children wouldn't have come out of our old medium-term plans'. Assessment and learning had to consider 'the child as a whole': 'the learning has been very deep' [Practitioner 2, PSV5]. Another practitioner [2, PSV7] discussed the need to keep a balance between the excitement and 'rich experiences' of the learning journey and the need to ensure that learners were prepared for moving to secondary 'with the skills that they need academically and personally and socially, to thrive' [Practitioner 2, PSV7].

Across the data, participants discussed some tensions with assessment at school and system level. One participant talked about there being 'two systems' in relation to curriculum and assessment expectations and suggested it was difficult to navigate between them [Observer notes, LLC AoLE, TS April].

Another commented on being nervous about 'letting go of recording on a sheet' because the practitioner was 'scared of having no proof' of learning [Observer notes, EA/AoLE, TS April]. A note from the November in-person day asked whether schools were 'assessing for progression or assessing for reporting' and saw this as a 'conflict' because the 'assessing for reporting is always in the background' [IPCN]. A group in April discussed how it was more challenging to communicate progress to parents and carers in a process approach to curriculum making, especially when juxtaposed with the results of national tests [Observer notes, LLC/AoLE, TS April]. Secondary participants felt that they needed to 'shift understanding' for parents: parents will ask what learners 'can do' [Observer notes, M&N/AoLE, TS April]. However, others discussed how they were now able to provide more meaningful information for parents and carers using apps, interim reports, and parents' evenings to communicate progress [Observer notes, TS April].

The sense of two systems was also evidence in relation to examinations and the challenges of aligning divergent assessment in a process approach with preparation for qualifications [Observer notes, M&N/AoLE, TS April]. Secondary participants in this group thought that there were skills that learners need to 'prove they can do' in assessments [Observer notes, M&N/AoLE, TS April]. However, they also noted that the 10-mark problem-solving questions in GCSE were not answered well, and divergent approaches could fit with developing the skills to respond more effectively to these. They wondered if it would be difficult to 'sell' more divergent approaches to assessment to secondary mathematics practitioners and suggested that professional learning inputs were needed to support this.

Sometimes, as one special school practitioner commented, assessment software could be less than helpful:

It is a series of mind numbing, soul destroying, tick boxes... uses digital technologies to explore different artistic outcomes... begins to explore how art makes them feel through connected creative work, for example, chooses sound to represent a piece of artwork... That's not telling me... how [learner name] has explored how art makes him feel through connected creative work... showing things he's afraid of, showing things that make him happy, and then linking this piece to a piece of music or a piece of film or drama... [Practitioner SpV2].

However, at various points in the data set, participants indicated that CfW in general and the process approach in particular, had prompted different ways of thinking about assessment, even though data might have to be gathered for some purposes. One practitioner commented: 'ongoing assessment is part of our school ethos; however, we do use convergent assessments as they provide a useful data drop for us' [Padlet comment TS April]. This comment ended: 'If you are assessing for the sake of it, don't...' [Padlet comment TS April].

4.2.4 Theme 4: Exploring the challenges: knots and tensions at school and system level

Participants spoke about continuing challenges in realising CfW, and commented on some remaining worries about the process approach in terms of clarity over the curriculum and the ongoing effects of the previous accountability system. (Issues with assessment were discussed above, so we will not return to these here.) We have further de-identified the data in this section to ensure anonymity as far as possible.

4.2.4.1 Realising CfW: curriculum clarity, coherent messaging, and changing system structures

Some of the data evidenced ongoing uncertainty about the curriculum framework and documentation. There were also concerns raised about consistency across the system. One group at the first in-person workshop in Cardiff discussed the vagueness of the Statements of What Matters [Researcher notes, IPCF]. A secondary participant said that, in their school, they were 'really confused about what assessment looks like in the curriculum'. As one primary participant said: 'it can be a lonely game when... you're given the bones of the curriculum, but how actually do you go about it?'

Disparate understandings of how to work with *Curriculum for Wales* made it more challenging to scale up use of the process approach. Cluster meetings had been 'ineffective' for sharing because there was 'no interest' from others for various reasons. In one case it was because some schools in the cluster were using existing commercial packages and trying to adapt these to fit CfW. In another cluster, one group of participants noted they had discussed the approach and found that staff meetings were 'not always positive' because process is seen as 'just one way of working'. Others thought that local authority variations were creating inconsistency and multiple perspectives on curriculum realisation [Observer notes, TS April]. Participants mentioned approaches such as *Understanding by Design*, big ideas, Bloom's taxonomy, and the influence of consultants who had been brought into the system to support realisation. All the approaches worked from different understandings of CfW. One school said they had 'pulled back' from curriculum making and felt they had 'lost their way' [Observer notes, direct quotations, IPCF]. This school mentioned the impact of Estyn recommendations following a recent inspection but also referenced work done within their local area with a paid consultant.

This seemed to have created mixed messaging, and the practitioners saw the Cardiff workshops as a chance to see how other schools and settings were approaching CfW [Observer notes, IPCF]. A discussion during a school visit referred to the 'elephant in the room' as being what the government might decide to do because all schools were not yet 'on the same page'. The example of moving from age-related expectations was given as an example of a positive move, but a recent communication from the cabinet secretary had led to a practitioner in the school wondering whether 'we'll be back into the comparative data'.

There was a sense from secondary participants that it was more difficult to realise CfW for them because of the backwash effect from examinations. There were also challenges in secondary schools due to the length of time practitioners had with learners and the effects of subject timetabling which split lessons into roughly one-hour periods. Time for planning and sufficient resourcing was also mentioned during the November in-person event. One note commented that 'having an ambitious curriculum which is process-led and worthwhile takes time and energy' [IPCN], while two notes mentioned increased workload with the process approach [IPCN]. However, another note commented that planning had been time consuming, but 'incredibly intrinsic to the direction and content being purposeful' [IPCN].

Time for planning, the nature of planning, subject specialism, and coverage were raised as issues in one activity event by two secondary participants [A and B for the purposes of this analysis]. This was a rich discussion, and it is worth giving space to allow these participants' voices to be heard because of the importance of what they say for understanding the challenges at secondary level. Participant A said that staff were 'struggling' to find time to plan together to develop another topic. The more open-ended

process approach to planning was also becoming difficult to maintain. Participant A explained that they were given 'leeway' for the topic they created for the *Camau* project in relation to planning at single lesson level, but this was no longer the case. They now must have a 'lesson by lesson' plan or at least 'the week' planned. Participant A said: 'We can't go off piste to the extent that we did with the first unit'. Participant B therefore wondered if there might be scope in a single lesson format for the responsiveness and flexibility that the process approach brought. They said: 'it might be more towards longer starters and maybe a lesson almost half and half. But still, although it's still a little bit prescriptive, it opens it up for there to be an element of going a little bit off track'. The mention of starters is indicative of an approach to planning that focuses on lesson phases (starter, main phase, plenaries), often aligned with learning intentions or objectives (Stephens, 2014; Ward-Penny & Lee 2019). This form of lesson planning tends to create a functional plan that can demonstrate 'content covered' but may not give scope for lesson planning as a creative or meaningful activity (Uhrmacher et al., 2013, p.2).

Practitioner A felt that the process approach was not a 'plug and play curriculum' but was 'the natural way education should go'. They said 'everyone that we've spoken to about it said, Oh yeah, that's how it's supposed to be done', but they noted that 'you are so driven by the fact that you're on this treadmill and there are deadlines, and they must do this, this, this and this by this point' [Practitioner A]. The 'traditional PowerPoint, write this down, answer a question' enables 'an awful lot more content' to be covered: learners can 'jump through hoops a lot quicker' [Practitioner A]. The practitioners were expecting that the new curriculum for key stage 4 would be more aligned with a process approach.

However, Practitioner A felt that 'it's a very slippery slope back to assessment by just learning outcomes and success criteria. So yeah, we're trying to avoid it aren't we?'

4.2.4.2 Issues with (data-driven) accountability

The intersection of accountability and curriculum change complicates the landscape of curriculum realisation. It is taking time to shift the system from previous approaches to accountability: previous ways of working are still having an impact on ways of thinking and working. Three things seemed important from the data analysis: how to 'report' progress to parents and others, the importance of school leadership, and the role of Estyn.

'Reporting' progress

There was ongoing discussion about reporting within CfW and within a process approach during the first in-person day. Observer notes commented on a range of questions and concerns such as how practitioners could report to parents and what information on progress could be used to do this. One primary participant mentioned a school that was tracking learning in relation to the progression steps which is something they wanted to avoid. In the past they had used 'inserts' which was 'a tick box activity – there's no value in it at all'. Another primary school participant talked about how, in the past, data 'was driven into you' as a way of evidencing learning. It was interesting that the language of reporting to parents rather than of communicating progress was sometimes used. However, from the perspective of a school leader, one secondary participant said: 'the responsibility I have is the progress and assessment side as part of my role, and reporting to parents... There have been quite a few conversations here about that'.

However, one group at the first in-person day thought it was 'frustrating' when progress was not related to content – one participant said 'I know we need to change the mindset, but it is very difficult in secondary schools, we are so target driven' [Observer notes, direct quotations, IPCF]. At the second in-person day there were tensions evident in the notes participants produced. Some wondered how to 'measure impact,' 'monitor and evaluate the impact of the process approach', or 'show the learning.' One participant during a school visit mentioned the Welsh National Tests in primary as not fitting with a process approach: the tests were stressful for learners and did not feel meaningful for practitioners who were able to say what learners needed without the tests.

The impact of high-stakes accountability from the previous system was still apparent in its effects on the leadership of some schools. Participants at both the second in-person day and the April twilight discussed the barriers to change that could result from a data-driven approach from governors and senior management. This creates pressures on staff, particularly where the focus is on data, end products, and spreadsheets related to accountability [Observer notes, TS April; Observer notes IPS]. A note from the in-person day in November also commented that local authority priorities were 'very focused on literacy and numeracy' and 'data-driven evidence' [IPCN]. Another note asked: 'How can we convince the LA that we are on the right track if they aren't up to date on the process approach?' [IPCN]. Another note commented that it was 'imperative' not to lose focus on the importance of the new curriculum, progression and assessment in 'the efforts to raise literacy and numeracy standards [IPCN]'.

Leadership

The importance of leadership feeling able to support a process approach was also evident in the conversation that Practitioners A and B had during one activity event. Participant A mentioned the accountability pressure of books and 'book scrutiny'. They felt that the learning using the process approach led to better understanding from learners of the topic: 'it was a hundredfold better... compared to how I would have traditionally done it'. For that unit, Participants A and B were 'given a little bit more leeway so that our books didn't conform possibly to the norm... We had a lot less work in our books to the extent a book scrutiny would probably question what we've been doing for half a term'. For future units they were not going to have that leeway and, although they were 'going to try' to follow a process approach to curriculum making, 'we will need a lot more evidence in our books and it will need to conform to the standards set out for book scrutiny' [Participant A]. Again, there was a sense of two systems running in parallel but pulling in different directions: the one that was shifting to align with *Curriculum for Wales* with its learner-focused understanding of progression towards the four purposes, and the other still focused on content coverage and evidencing learning in books.

Accountability was picked up on by primary practitioners during a school visit. One said that a shift away from books could only happen with the support of senior leaders 'who aren't going to then come and say to you, well... where's your maths work for that then?' Their colleague agreed, saying: 'I've learned in the past I need to have that quantity in my book'. This sat in contrast to other experiences of leadership which had been supportive of change and practitioner innovation within the new curriculum framework.

One participant noted: 'We have been very fortunate to have the SLT support to experiment and TAKE THE TIME to implement this properly not just pay "lip service" to the project' [IPCN note, original emphasis].

The role of Estyn

In terms of wider accountability in the system, some participants mentioned positive experiences of Estyn inspections. At the first in-person day, two practitioners discussed a visit which did not focus on data as evidence or tracking of progress, but rather on talking to practitioners [Observer notes, IPCF]. One note at the November in-person workshop commented that Estyn had been positive about their approach to learning using process curriculum making, and that they were planning a case study with them [IPCN]. There was, however, more uncertainty than confidence expressed across the data set in relation to Estyn's expectations about what they see as good practice in relation to CfW and accountability.

Two different participants in Cardiff discussed their recent experiences inspection and said that it was evidence-focused, as if Estyn 'have not caught up' [Observer notes, IPCF, direct quotation]. At the twilight discussion one padlet comment noted: 'Teachers are nervous after our recent Estyn [visit], as the focus seemed to be on teachers proving themselves.' One group of participants at the twilight discussed their sense that Estyn were not 'coming with us on the journey' [Observer notes, TS April, direct quotation]. This approach was felt to be a barrier to change and creating delay in the CfW journey [Observer notes, TS April]. One question left by a participant at the November in-person day asked how Estyn and school staff might be reassured that slowing down learning and focussing on the Principles of Progression is 'valid and acceptable' [IPCN].

4.3 Summary of key points

- Overall, practitioners were positive about working with a process approach to curriculum making. The approach allowed for more responsiveness to learner interests and needs, greater inclusivity, slower and deeper learning, and more individualised learning experiences. The teaching and learning that was created therefore led to deeper understanding and more learner involvement, engagement and enthusiasm. Participants noted that this engagement and enthusiasm was commented on by parents, particularly in the primary sector.
- Planning was 'messier' because it was more flexible and open ended. Many practitioners reported increased professional engagement and enjoyment in teaching and learning using the process approach. Professional conversations and collaborative planning provided stimulation and inspiration and having the time to do that was highly valued. However, this time was not available to all participants: the additional workload involved with curriculum making needs dedicated space and time.
- Practitioners varied in the extent to which they were able to embrace a process approach fully. Many participants felt reassured that their realisation had so far been 'on the right lines', but some others noted initial uncertainty as the process approach involved significant changes to their ways of creating curriculum and developing learning. Partly this was because of the different understandings of the curriculum that exist in the system.
- Practitioners discussed how they evaluated learning in ways that supported continued learning and, more holistically, learner development of and towards the four purposes. Learner voice and involvement in assessment, interactions with learners, and a wider range of types of assessment evidence – including observation – are all important. Many of these were already part of practice to some extent but using a process approach prompted consideration of what forms of assessment are meaningful and what range of evidence can give confidence that learning is happening.
- It was reported to be more difficult to use a process approach in secondary schools because of the need to cover prescribed content in a tight timeframe for national qualifications assessments. It was also more challenging due to timetabling restrictions and having less time to get to know learners. Some schools were managing to overcome those challenges to some extent, but the backwash effect of the examination system continues to be an issue for realising CfW in the secondary sector.
- An ongoing perception that data-driven evidence of learner performance and 'standards' is required, and some uncertainty over Estyn's expectations, create tensions in realising CfW. The perceived need for evidence in books still shapes thinking in some schools and so continues to shape practice in assessment and learning. The important role of school leadership in embracing new ways of working was highlighted by participants.
- The impact of high-stakes accountability from the previous system was still apparent in its effects on the leadership of some schools. Where leadership feels unable to move from practices more in keeping with pre-CfW approaches to accountability and learning, it can be challenging for practitioners to realise the changes that the new curriculum requires.

5. Education Support Partners' views of the process approach

This chapter discusses approaches to professional learning in the system by focusing on data from Strand B with Education Support Partners in the system. Strand B participants were asked to consider the process approach to curriculum making and what it might mean in relation to quality, professional learning and learning for young people aged 14-16. While these things were considered, so too were approaches to realising CfW. The findings therefore include participants' views of the process approach together with broader considerations of realisation in general.

The research question explored through this data set was: *What do Education Support Partners perceive are the implications of a process approach to Curriculum for Wales for: quality in the system, professional learning, and learning 14-16?*

5.1 Context for Strand B research

Strand B participants in Phase 3 of *Camau i'r Dyfodol* included representatives from Local Authorities, regional support services, and bodies such as Qualifications Wales and Estyn. Welsh Government leads also attended and contributed to every session.

The pattern of attendance and engagement varied during Phase 3, and for some twilight sessions numbers were small. Estyn representatives were only able to attend the earliest Strand B events due to other commitments. In addition, the project timeline for Phase 3 coincided with the Welsh Government's priority to clarify the roles and responsibilities of Education Support Partners in the system. We are therefore grateful for the consistent engagement of Support Partners during what we recognise was a time of change.

5.2 Approach to data collection and analysis

The data set for Strand B consisted of the following elements from the activities we held with Education Support Partners in 2024:

Code	Activity	Data set
April 2024		
ON/IPA	Observer Notes/ In-person April	3 sets of researcher notes
IP/A	In-Person Event/April	9 flip chart sets (group working and notes from discussions) 15 post it notes (questions and comments)

June 2024		
ON/IPJ	Observer Notes/ In-person June	5 sets of notes
ON/JT	Observer Notes/ June Twilight	2 sets of notes
PD/JT	Observer Notes/ June Twilight	1 transcript of whole group discussion
IP/J	Participant Data/ June Twilight	11 flip chart sets (group working and notes from discussions)
	In-Person Event/June	14 post it notes (questions and comments)
September 2024		
PD/ST	Participant Data/ September Twilight	1 transcript of whole group discussion 1 transcript discussion group 1 1 transcript discussion group 2
December 2024		
ON/DT	Observer Notes/ December Twilight	5 sets of researcher notes
PD/DT	Participant Data/ December Twilight	1 transcript of whole group discussion

Table 4: Activity codes

Using reflexive thematic analysis we created the following themes from the data:

- Theme 1: Supporting practitioners: working with people 'where they are at'
- Theme 2: Perceptions of the process approach: 'clarity needs to come from the framework'

To preserve anonymity as far as possible we have referred only to 'participants'. We have not given participants numbers or letters or indicated what roles they play as Support Partners. In reporting the findings, we have included a wide range of perspectives from across the data set to represent participant voice.

5.3 Findings

Strand B participants discussed the scale and complexity of change involved in realising CfW. They highlighted the need to show empathy in their work for practitioners and leaders during the change process. Overall, participants felt progress was being made in realising CfW, but it was noted that primary schools found this more straightforward than secondary schools. 'Tensions' in the system were discussed as contributing to this challenge. These included:

- professional culture taking time to shift from performativity and measurement to a focus on developing the four purposes;
- the need to give practitioners 'permission' to teach and learn in an enquiry-based and experiential way;
- qualifications backwash;
- the different messages about realisation that exist in the system.

Changing mindsets was more challenging for some schools and leaders because they were still focused on metrics and 'content coverage'. Strand B participants highlighted the significant role of school leaders' in understanding the original intentions of CfW as a purpose-led curriculum and working with this understanding to support culture change in schools and settings.

5.3.1. Theme 1: Supporting practitioners: working with people 'where they are at'

5.3.1.1 Taking care with conversations: there is no 'shortcut' to curriculum change

There was agreement across the Strand B data set about the need for careful consideration when working with system professionals in relation to realising *Curriculum for Wales*. Strand B participants acknowledged a gap between the 'vision' of CfW and the realities of its realisation [ON/IPJ]. One participant said that there was a 'very long continuum' of realisation in the geographic area where they work [PD/JT]. Some schools were realising CfW by regularly reviewing and evaluating the curriculum and changing it 'to meet the needs of the children'. However, there was 'a whole swathe of schools at the other end who like the topics they did pre-Curriculum for Wales and have stuffed in the What Matters statements.' This participant highlighted that schools had spent 'an awful lot of money on schemes and Twinkl subscriptions... We don't want to turn around and say to them you're doing it all wrong' [PD/JT].

One participant said that the discussions around worthwhileness and the process model had been helpful. This did not mean that 'all the things that we've discussed and talked about over the past few years' had been 'wasted':

information on the process approach was helpful in 'being able to articulate why we do what we do' [PD/JT]. Following involvement with the *Camau* project, this participant had been working with practitioners in schools and settings and asking 'can you articulate why you're doing what you're doing? Why is it worthwhile?' They thought that this approach had opened conversations about the pedagogies and experiences of learning, as well as some of the challenges [PD/JT].

Support Partners were very conscious of the human element in effecting change particularly in relation to school practitioners' and leaders' care for learners. Conversations needed to be conducted from a perspective of 'partnership' [ON/DT]. One participant said that professional concern about curriculum change, particularly about the process approach, 'comes from a really good place... it comes from a concern about learners' [PD/ST]. They thought that some of the concern might relate to worries that the process approach could lead to a 'dip' in standards or attainment [PD/ST]. Another participant said:

I suppose the conversation that we just had [in our group] was largely about the kind of discussions that we have with practitioners on a day-to-day basis, and how individuals quite often can feel vulnerable [PD/DT].

It was also noted that 'thinking differently is stressful' [ON/IPA]. There was also a comment that practitioners could lack 'time and space' to work through new information [PD/DT]. This was seen as particularly important in relation to changing national qualifications.

One participant wondered whether practitioners would 'look at those new [GCSE] specifications and see *Curriculum for Wales* living and breathing through them' or whether all they had time to do was 'flick through' to find the content while thinking about the '15 month dash' to 'get through all of this stuff again' [PD/DT]. Given the complex nature of system change, Education Support Partners discussed the need to work with people 'where they are at' and have empathy for them [PD/DT].

During the September twilight discussions, one participant said that there was no 'shortcut' to supporting curriculum change, particularly with a process approach [PD/ST]. They did not think there were any 'tips and tricks that you can give people and just say... if you come on a day's course, you'll be able to do this'. Instead, there had to be 'constant dialogue 'around purpose and... what we're trying to achieve here as a nation' [PD/ST]. It was important to consider how to support schools and settings to scale up change in order to ensure a 'smooth journey' for learners 'across the continuum' of *Curriculum for Wales* (PD/JT). Practitioners also needed to feel that change is possible. One participant said: 'for many of our practitioners, it might not be the process of planning that needs to be different, but... some of the other constraints in the system' [PD/ST]. In relation to the process approach, this participant thought it was important for practitioners to feel that they can 'explore learning in this enquiry way' without the 'risk' of it 'contravening something else' [PD/ST]. It was also important to recognise that the CfW guidance is a 'live document': Support Partners had to consider how updates would be understood in the system so that they could respond in a 'timely way' [PD/DT]. Communication was seen as key to supporting practitioners with any updates and new information.

5.3.2.2 The influence of system factors: qualifications, measurement, and different messages

It was recognised that practices (and, so, professional development needs) were shaped by factors in the system. Various Strand B discussions and notes focused on the ways in which current qualifications influence professional culture and practice, particularly in secondary schools. Participants discussed their perceptions of pressure on secondary staff to cover content for GCSE qualifications (ON/IPA). Learning could still be content-led, and some practitioners still had a 'coverage mindset' [ON/DT]. One education partner said: 'I feel like sometimes I'm trying to get the principles of *Curriculum for Wales* into conversations by stealth' [PD/ST]. This could be particularly challenging where a secondary school is so focused on qualifications that it could be 'described as an exam factory' [PD/ST].

Discussion of qualifications was facilitated at the twilight session in December, with recognition that examinations were changing and could be aligned with a process approach. One participant said that there seemed to be an 'urban myth' that qualifications are 'stuffed with content' [PD/DT]. In the September twilight, one group had also been more positive about the work being done on qualifications. They felt there was a danger of seeing qualifications as 'things to be wary of' rather than as an assessment of how learners had built conceptual understanding during their learning journey [PD/ST]. One participant asked whether it was the nature of the qualifications that needed to change, or 'our approaches and our view of them' [PD/ST]. This participant thought that there was still a tendency to see qualifications 'as things to teach to and narrow the curriculum' [PD/ST].

This education partner said: 'it feels as if we're having to do an awful lot of mitigation to try and prevent as much of that as possible', but it was 'like running up a sand dune that's coming back at you' [PD/ST].

The important role of school leaders in realising CfW was also noted. Participants discussed the need for school leaders to be less managerial: some headteachers appeared to be more like 'business managers rather than leaders of learning' [ON/IPJ]. One group in September discussed how some secondary head teachers and middle leaders could still be very focused on metrics [PD/ST]. This focus was 'coming from a world of data and performance, and quartiles and measures' [PD/ST]. In the other discussion group, a participant thought that some headteachers had not 'embraced' CfW, particularly elements like integral skills which 'won't contribute to the measures' (PD/ST). Working with school leaders on curriculum change, this participant said that conversations about the difference between process, product and content, 'and what we've had, and what we're trying to do' meant that 'you do get somewhere' but that 'some hard yards' had to be putw in to support changes in thinking. Participants in this group discussed the tendency for school leaders, particularly in secondary, to be very mindful of 'measures' and 'standards' [PD/ST]. Concepts that seemed 'messy' or 'a little bit more intangible' could be difficult to fit with a 'clipboard compliance world' that some were still to move from [PD/ST].

Another participant noted the pressures on secondary practitioners to cover material: 'driving, pushing, pushing, pushing... trying to tick those things off' and 'flying through loads of stuff' [PD/ST]. Participants in the April in-person event also discussed the influence of the previous culture of performative measurement on practitioners. One discussion noted that some practitioners and schools tended to revert to thinking about how they could assess or measure learning in relation to the four purposes [ON/IPA]. One participant said: 'It feels as if we're losing battle after battle' [PD/ST]. However, one education partner thought that words and ideas like 'rigour' are used 'as excuses to justify... things that... marginalise huge numbers in society' [PD/ST]. This participant said: 'We have to be brave enough to unpick some of these things' and ask questions about what would be 'genuinely inclusive' in relation to educational change [PD/ST].

Different messages at system level were also adding to the complexities of realisation. During the in-person event in June, participant groups discussed their sense that schools are 'starting in different places' in relation to curriculum understanding. During the December session, one discussion group highlighted a 'whole deal of pressures' in the system and so a range of reasons 'why people are perhaps in different places' in terms of curriculum realisation [PD/DT]. This group said there was a need to have 'the whole system talking as one voice, because it does feel at times as though there are lots of disparate messages' where things can 'get lost in the cracks' [PD/DT]. One September participant said that the differences were

definitely a tension... The practitioners we're trying to really ask about changing their classrooms... have got all of the organisations around them not necessarily agreeing or even understanding the language that we use in the same place. [PD/ST]

One June twilight participant thought there needed to be alignment between different projects working in the system and thought 'lack of trust' could arise when there are different messages [PD/JT]. Another gave the example of the work that had been done on backward design in the system: 'so much of it is just recall and regurgitation' that it felt 'really at odds with what we're trying to achieve in *Curriculum for Wales*' [PD/JT]. One participant felt that the telling of the curriculum story had been fragmented and teachers found this 'drib drab' approach to be frustrating [ON/DT]. This was thought to contribute to some practitioners' reluctance to let go of old practices, but it was also noted that old habits provide 'comfort' during times of change or uncertainty [ON/DT].

5.2.3 Theme 2: Perceptions of the process approach: 'clarity needs to come from the framework'

5.2.3.1 A contextual, holistic approach to learning, but how do we scale it up?

During discussion of curriculum models in the April in-person event, participants felt that the process approach to curriculum making encouraged a contextual and holistic approach to learning. At the September twilight, practitioners from a Strand A primary school presented an overview of their project on money (see Appendix 1).

Education Support Partners had an opportunity to discuss this with them in detail. One group of partners commented that the practitioners' approach had created a positive and supportive learning environment which seemed to 'free the teacher up... to support learners on an individual or group basis' [PD/ST]. Rather than 'driving the lesson from the front,' the approach created a 'nicer environment' that might support 'teacher well-being... They could actually go around, speak to groups, support learners' [PD/ST]. This group also felt that the money example provided evidence that 'learners were making connections across the different areas of learning and experience' and so were deepening their understanding of concepts and ideas [PD/ST].

In relation to the process approach, participants thought that quality assurance could be tailored to local contexts and so could be more bespoke. One group thought that the *Enabling learning* guidance⁸ could be used to evaluate quality learning and teaching developed with a process approach. This would focus on every learner 'making good progress against their starting points' [PD/ST]. The *Principles of Progression* also provided indicators of quality learning that could be helpful [PD/ST]. It was noted by one participant that approaches to quality had been evolving already in response to CfW [PD/ST]. New 'signs of quality' focused on 'the process that the children will go through, rather than a discussion of doing book looks' [PD/ST]. One participant said their group had considered the money example in light of 'previous measures that we'd used before, or previous ways of thinking about professional learning' [PD/ST].

8 Enabling learning is a curriculum resource that provides guidance for senior leaders and practitioners in 'planning, designing and implementing' a 'pedagogically appropriate curriculum for all learners'. The guidance states that it 'may also be used as a tool to support evaluation of the quality and impact of curriculum design on learner progress'. (Welsh Government, 2023, np).

This participant said that with CfW 'what you're trying to understand' is 'complexity' around approaches to curriculum and learning: 'some of the previous clipboard measurements that we've used just give us compliance models' [PD/ST]. However, they also said that thinking about quality in relation to less tangible indicators of learning could create 'unease' when 'people are used to having something that is easy to measure' [PD/ST].

When discussing the concept of worthwhileness in relation to the process approach, one participant thought there was a risk 'that you could justify the worthwhileness of a lot of different things, but actually, it may not in the grand scheme of things be very worthwhile' [PD/JT]. They wondered if there could be things that might be agreed on as being worthwhile to learn and if there should be 'parameters' for these decisions [PD/JT]. Another highlighted that CfW had not always 'brought the change that has been needed' in Year 7 of primary school [PD/JT]. As result, the curriculum in some schools could look 'quite similar' to how it had been pre-CfW. Others in the June twilight wondered how a process approach to curriculum design, teaching and learning could be 'scaled up' to school level and beyond. A September participant felt that there 'was probably poor understanding' of the process approach currently' and that there were 'real sceptics out there' [PD/ST]. The process approach might therefore feel like 'a leap of faith' [PD/ST].

5.2.3.2 Approaching realisation: clarity 'needs to come from the framework itself'

There was some concern about highlighting CfW as aligning with the process model of curriculum design.

One participant said: 'if we say that one model is the only way schools will be designing a curriculum... that will perhaps go against some of the good work schools have already done' [PD/TJ]. This participant said that for schools 'already quite far down their journey' of realisation, 'to suddenly throw in' that CfW is a process-oriented curriculum might 'put a lot of extra weight on that school' [PD/JT]. This would be the case particularly if the school was already feeling 'quite oversaturated by the amount of guidance and information and terminology that's out there' [PD/JT]. There was also some concern expressed across the data set as to how the process approach fitted with other projects such as backward design and the talk pedagogy project [PD/ST].

A participant in the June twilight session commented that the curriculum guidance 'says that not one approach is required in terms of curriculum design' [PD/JT], while in the September twilight the point was made that CfW 'doesn't explicitly say' it is a process model [PD/ST]. In September this led one group to discuss the need for the framework to give clearer guidance. One participant thought that clarity

needs to come from the framework itself... It needs to be more explicit in terms of how it tells schools to approach... the process orientated approach and let's make sure that then is part of the statutory guidance or the way in which schools engage with the Curriculum for Wales framework, because at the moment I don't think it is [clear]. [PD/ST]

Another participant in the group agreed, but noted that some schools were 'quite willing to take risks and have a go' while others were 'quite comfortable in the topics on the Victorians and World War 2... It's like moving a tanker round, really' [PD/ST].

A participant who had not been involved in the pioneer process or the early co-construction of elements of the curriculum framework asked whether *Curriculum for Wales* was 'deliberately constructed as a process orientated curriculum' or did it 'just happen through the co-construction of the curriculum framework' [PD/JT]. A *Camau* team member explained that the recognition of alignment with a process approach had been part of co-construction working on the project. This happened because it was helpful to clarify the nature of curriculum given the different understandings of CfW in the system. The participant responded that there might be 'some disparity, some sort of misalignment actually with what is in the *Curriculum for Wales* and the statutory guidance'⁹ [PD/JT].

The data gave a sense of some participants seeing the process approach as involving a different way of realising *Curriculum for Wales* than they were used to or had experienced with schools and settings. One June twilight participant said that they had supported schools with realisation for some time, and yet their 'head was blown by the whole process-oriented approach' [PD/JT]. They said it was 'massively different... to how schools would approach curriculum design at the moment' [PD/JT]. As a result, they thought that it would 'require a lot to support the profession with a process-oriented approach' and that there would have to be 'maximum clarity' about its use [PD/JT]. However, one September participant thought that primary schools had 'been more open and more accepting' because experiential approaches to learning came 'through from the foundation phase, and so they are more used to the process approach' than secondary schools [PD/ST].

9 As noted in Chapter 3, during the curriculum design workshop we modelled working in a process-oriented way with the Curriculum framework and the statutory guidance.

Some participants in June also noted a 'feeling of unsettlement' in learning about the process approach. One said 'it is very difficult to be in a position where we have to change the messages that we have been giving to schools in the last 2 or 3 years' [ON/IPJ]. Another said they 'were not comfortable' with their understanding of the process approach [ON/IPJ]. However, elsewhere, other Support Partners highlighted that CfW had already necessitated changing mindsets and a move from the content-focused approach of the previous curriculum [PD/ST].

5.4 Summary of key points:

- Education Support Partners reported that progress was being made in realising CfW as a purpose-led, process-oriented curriculum, and they could recognise the positive impacts of the experiences reported by some schools and settings. However, they also acknowledged a gap between the 'vision' of CfW and the realities of how it is being realised in many schools and settings. That gap is generally narrower in the primary than the secondary sector but, in some contexts, it can feel challenging to support culture change to align with CfW as a purpose-led curriculum.
- Education Support Partners recognised the complexity of implementing change at this scale and believed that practitioner concerns about curriculum change are often founded on concern for pupil learning and uncertainty about possible effects on attainment. Strand B participants commented on the need to work sensitively, empathetically and collaboratively with practitioners and school leaders at whatever point they are at with curriculum realisation.
- Some challenges to realisation were highlighted: the requirement for a significant shift in professional culture and approaches to teaching and learning that realising CfW involves; backwash from qualifications including a perceived pressure to cover content in a limited time; and system-level mixed messages regarding curriculum realisation, including from diverse initiatives intended to support practitioners.
- Participants highlighted the important role of school leaders in understanding the intentions of CfW as a purpose-led curriculum and supporting the resulting culture change necessary to move away from a focus on traditional accountability measures to a focus on worthwhile learning that supports the development of the four purposes.

6. Supporting student teachers to work with Curriculum for Wales

This element of Strand C aimed to understand how teacher education lecturers supported student teachers to work with *Curriculum for Wales*. We intended to interview staff from all six universities involved in initial teacher education partnerships in Wales, but only five were able to participate. One of the five is involved in the *Camau i'r Dyfodol* project, but the same questions were discussed in the interview with this provider as were asked in the other interviews. The focus of the discussion was therefore on the preparation of student teachers in the programmes this university offers and not on any involvement with the *Camau* project.

The research question explored through this data set was: *How are Teacher Education Institutions working with student teachers to support their understanding of Curriculum for Wales and how to realise it in practice?*

6.1 Context for Initial Teacher Education in Wales

There are 5 accredited partnerships of Initial Teacher Education in Wales. These partnerships were created as a result of the reforms which followed the Tabberer (2013) and Furlong (2015) reports. These reports highlighted concerns about quality and provision in ITE, particularly in comparison with understanding from international evidence¹⁰. Furlong (2015) also noted that the proposals for the new curriculum in *Successful Futures* would 'have significant implications for the form and content of teacher education' (p.7).

As part of the subsequent reform of ITE, new accreditation criteria were developed¹¹ based on partnerships between university providers and lead partner schools (Furlong, 2020, p.38). Furlong (2020) highlighted that this was the first time that collaborative partnership with joint responsibility for programme content and quality had been 'made mandatory and enshrined in legislation' (p.38). This collaborative approach is designed to provide what Furlong et al. (2021) describe as 'close partnership' where teachers and lecturers 'draw on different sorts of professional knowledge (practical, theoretical, empirical)' to support the 'situated learning' of student teachers (p.64).

6.2 Approach to data collection and analysis

For Strand C, the data consisted of five interviews with 13 participants (see Table 5).

University identifier	Participant number	Participant identifier L (lecturer)/U (university)
1	1	L1(U1)
2	4	L2(U2); L3(U2); L4(U2); L5(U2)
3	4	L6(U3); L7(U3); L8(U3); L9(U3)
4	3	L10(U4); L11(U4); L12(U4)
5	1	L13(U5)

Table 5: Participant and institution identifiers

The identifiers for the ITE providers do not relate to the order of interviews or to any characteristic of the institutions. To support de-identification of participants, given the small numbers of institutions and participants we have avoided pseudonyms and used numeric identifiers. We have opted not to state what role the participants play in their institutions for the same reason. Participants had a range of roles in their work with primary and secondary student teachers (at undergraduate and postgraduate levels) and had a range of years of experience.

10 See Tabberer's (2013) discussion of international research/OECD findings on teacher education quality and the systems in Finland and Singapore in Chapter 3 (pp.8-13), and Furlong's (2015) summary of the British Educational Research Association/Royal Society of Arts 2014 review of international research on quality teacher quality in Chapter 2 (p.8).

11 These were first produced in 2017, undergoing a 'refresh' in 2023 (see Llwodraeth Cymru/Welsh Government Refresh of the '[Criteria for accreditation of initial teacher education in Wales](https://www.gov.wales/initial-teacher-education-programmes-accreditation-criteria)'). The updated criteria can be found here: <https://www.gov.wales/initial-teacher-education-programmes-accreditation-criteria>

We have also avoided use of names for placement approaches, or for programmes, modules and courses to support de-identification of the institutions. We will refer generically to *undergraduate and postgraduate programmes, courses* (of study), *school placements*, and *partner schools/partnerships* to discuss the approaches taken to initial teacher education.

During analysis, we created three themes from the data:

- Theme 1: Understanding *Curriculum for Wales*: a responsive, flexible, learner-centred framework
- Theme 2: Approaches to initial teacher education: 'The curriculum doesn't drive what we do.'
- Theme 3: Responding to challenges: time pressures, different interpretations, and system change

We discuss the themes in detail in the next sections, beginning with a brief overview of the findings.

6.3 Findings

We spoke with university lecturers, so the findings here represent their perceptions. However, the interviews highlighted the important role of partnerships, and each university made clear that the role of supporting student teacher learning was a shared responsibility. The findings should therefore be seen in that context: as participants said, not only do they 'listen very closely' [L11/U4] to their partners, but partner schools and staff are integral to the process of initial teacher education.

Overall, there was a strong sense from the data of the importance and quality of a range of partnerships to teacher education provision and the student experience. The complementary diversity of staff experience and expertise within partnerships was noted.

Despite there being challenges relating to time pressures (particularly on postgraduate programmes), the volume of activity relating to system change, and differences in how schools are realising Curriculum for Wales, university participants highlighted the importance of responding to these challenges in ways that best support student understanding of the realities of practice. This involved considerations of a range of professional knowledges relating to curriculum design, subject knowledges, pedagogy, assessment, support for learning, and reflection and inquiry skills. As participants said, teaching is a 'complex business' [L1/U1] and *Curriculum for Wales* is one among 'many things' that must be considered in teacher education [L12/U4].

6.3.1 Theme 1: Understanding Curriculum for Wales: A responsive, flexible, learner-centred framework

6.3.1.1 CfW as holistic, broad based, and learner-centred

Participants discussed *Curriculum for Wales* as a framework that enabled responsive, flexible approaches to locally created teaching. CfW was seen as 'holistic and broad based' [L6/U3], involving teacher agency [L3/U2; L5/U2; L11/U4] and autonomy [L1/U1; L6/U3]. [L1/U1; L3/U2; L7/U3; L10/U4]. The learner-centred nature of CfW was also commented on. L1/U1 saw CfW as 'very much about context of learners, about a really deep knowledge and understanding of learners and where learners are at'. L4/U2 stressed that the focus of CfW 'is on each individual learner and how they make progress over time' in relation to the four purposes. L5/U2 said that CfW allowed teachers to 'shape' learning 'for the needs of the pupils in front of them.'

This was 'very much a ground-up philosophy' that represented a change from the 'top-down' curriculum that had gone before [L5/U2]. L11/U4 also noted that the previous curriculum had given 'the impression of directing teachers'.

Understanding of the curriculum was described as 'evolving' [L1/U1] and a 'journey' [L4/U2], but CfW was seen to represent a shift from a 'traditional' curriculum [L3/U2; L6/U3]. A traditional curriculum was characterised as 'content heavy' [L4/U2], 'taught...school lessons' [L3/U2], focused on a 'list of subjects' [L6/U3]. In contrast, CfW was seen as holistic and experiential [L6/U3], contextualised in schools and communities [L10/U4]. L1/U1 said that this required being 'able to live with the messiness of curriculum' given that everything was not going to involve a 'homogeneous... replicated curriculum across all schools'. L13/U5 thought that CfW meant that 'all our schools... have got a very much bespoke curriculum,' adding 'I'm pretty happy saying that.'

6.3.1.2 CfW and disciplinary knowledges: progression from 3-16 and beyond

While the participants discussed the holistic aspects of the curriculum, they also discussed the importance of disciplinary knowledges in relation to the Areas of Learning and Experience and the Statements of What Matters. Participants noted the careful considerations they had made in their programme teams and in working with students:

You know, we still offer subject specific PGCEs in secondary making sure that there is still a place for that disciplinary knowledge and understanding, but it doesn't stop there... This year we've taught the secondary group far more together. There's been opportunities for them to think about the impact of their subject area within an AoLE and across an AoLE... [L10/U4]

I mean even in terms of coming together as an AoLE it's looking at some of the what matters statements and then giving students the opportunity to think about, to interrogate, to discuss what these statements might mean - what they might look like in an individual subject. And then actually how that might translate to some cross curricular thinking and learning. [L8/U3]

We do however have to think really carefully about how we support students' subject knowledge, while simultaneously supporting their pedagogical understanding of each of the separate disciplines. So, although we do frame it in a very holistic approach, we do look at the – we always have – looked very much at the separate aspects of the AoLEs and what is very important within that particular AoLE. [L1/U1]

There was therefore a sense of participants balancing the shift from a subject-focused curriculum (discussed in Section 6.2.1.1), with a need to understand the AoLEs as drawing on disciplinary knowledges and associated subject knowledges and signature pedagogies (particularly at secondary level and in relation to national qualifications). University partnerships provide a range of integrated experiences for student teachers both in university and with school partners to ensure working across primary and secondary sectors and across AoLEs. Interdisciplinary and cross-curricular working also features. This range of experience was important in relation not just to the nature of the AoLEs but to understanding progression and the 'continuum of learning from 3 to 16' [L4/U2] and 'as we move through GCSE and A-level as well' [L9/U3].

Participants in University 3 discussed the importance of what progression 'means' [L9/U3] in relation to AoLEs and subjects:

We did a lot of work as an AoLE actually... [talking about] vertical and horizontal progression... and making sure that students understand what that looks like within the classroom, within their own subject and within the larger AoLE as well. [L9/U3]

In the discussions we had with our students, it was interesting to see discussion of progression over a series of lessons. You know, we break it down for them, you're thinking about progression in micro aspects as well across lessons... We did some work as an AoLE, so looking at actually what does progression mean within... languages, literacy...? [L8/U3]

Supporting understanding of progression across primary and secondary phases was also important in relation to long-term planning. L4/U2 commented that 'unless you've got all that collaborative working going on between primary and secondary, how are you going to get that... fluid sort of progression for any of the learners?'

6.3.2 Theme 2: Approaches to initial teacher education: 'The curriculum doesn't drive what we do.'

Participants spoke about the range of knowledge and professional skills that they were encouraging student teachers to develop. These included: curriculum knowledge, curriculum design and critical thinking about curriculum; pedagogy (including subject specific pedagogies) and assessment; inquiry and reflection skills; and responding to additional learning needs. Key to programme design and professional learning were partnerships: these enabled shared expertise as well as a shared approach to supporting student teachers' learning.

6.3.2.1 Curriculum is one part of what we do: understanding curriculum and practice

Participants were clear that the curriculum was an important aspect of professional learning, but it did not 'drive' the provision. L12 discussed the programme review each Spring where U4 teacher education staff consider the sequence of the teaching sessions: 'and those aren't driven by curriculum for Wales – it's actually about pedagogy'. Participants were clear about the importance of pedagogy and the complex range of skills needed to teach effectively and support learners with diverse needs. For example, L8 said:

as long as we ensure that our students have the knowledge [and] confidence in a wide repertoire of pedagogical skills, they'll be able to deal really well with any context that that they go into. Ultimately, we want them to know that there are fundamentals in terms of learning. And so, we always come back to the theory of learning. We're always adopting an evidence-informed approach. And I think, you know, if our students have that grounding, then they'll be really, really well placed to be... confident and effective practitioners. [L8/U3]

L6/U3 had a similar view, stating that their provision was 'driven by... the attributes, the skills, the dispositions, the knowledge that high quality teachers need' rather than being driven by the curriculum. Another participant (L12/U4) said:

Yes, OK, we focus on curriculum, but it's about planning and designing effective lessons... that's fundamentally what it comes down to... not the specifics of Curriculum for Wales... [Students] are thinking about how they open a lesson, they're thinking about the subject specific pedagogies that might be appropriate.

They're thinking about differentiation; they're thinking about questioning. They're thinking about assessment for learning... [L12/U4]

Looking more broadly, L10/U4 spoke about the changes the reform of teacher education brought 'to make sure we could deliver ITE programmes that were suitable for Curriculum for Wales', but said they were 'not sure the Curriculum for Wales itself has driven much change' in how they have worked with schools and students.

Even though the curriculum was not seen as driving provision, all the participating university partnerships had a strong element of curriculum design in their programmes. Participants explained the approaches they took:

I think in our presentation of Curriculum for Wales... is about enabling students to be designers of curriculum... equipping students to be able to interpret, design, respond, evaluate and change curriculum is really important to us. [L1/U1]

We provide lots of space for our students to interrogate, discuss and think about curriculum enactment. And on top of that, we give them space and time to reflect upon curriculum enactment as they experience it, as they progress through the course. [L8/U3]

We do provide our students with guidance, whether it be materials, whether it be lectures, videos, exemplification... not necessarily to say here's one, you must follow this. Not at all. But we give them examples to reflect on so that they recognise that if they're planning a lesson there are different ways of doing this. [L6/U2]

[By the end of the programme] students have been exposed to a lot of teaching around Curriculum for Wales, so that... they're in a pretty good position to think deeply about it and critique [it]... and develop their own practice in relation to working with Curriculum for Wales, particularly... when they're thinking about their NQT year and how they will work with the curriculum in their first post. [L12/U4]

Some universities also focused on building knowledge of curriculum approaches internationally to compare and contrast various approaches to curriculum design. One brought in speakers from New Zealand and Poland to discuss curriculum approaches with students.

There was a strong sense that university partnerships all emphasised the curriculum in practice. As L10/U4 said of their partnership's approach, students are encouraged to see that there are 'professional pedagogical choices that you will need to be making as a teacher in Wales and here's the kind of things that that you need to think about when you're making them'. Participants discussed cross curricular and interdisciplinary planning among students, opportunities for primary and secondary students to work together to understand curriculum and pedagogic approaches, and the importance of students understanding planning at the short, medium and long term. To support curriculum knowledge in practice, one university programme involves students in a two-week collaborative project where they pair up to visit a placement school and meet people who have designed the curriculum. Another uses a cyclical approach where students have a day in a placement school looking at theory and policy relating to CfW, and hearing about the practicalities of planning. Students then plan a unit of work before coming back into the lead schools to discuss what they have planned.

6.3.2.2 Developing responsive, reflective practitioners through partnership

Practitioner comments gave a strong sense of wanting to support student teachers to become reflective, research-informed practitioners who were able to be responsive to the realities of practice. L1/U1 said that it was important for student teachers to be both responsive and reflective because they have 'got to be able to go out and interpret the context that they're working in.' While agency was seen as a positive aspect of professionalism, L12/U4 recognised that freedom 'to go and design the curriculum in your school' required 'flexibility' in mindset and curriculum design skills. L6/U3 also referred to agency in curriculum design, saying that students are 'guests' in schools, but they also need to develop their own philosophy and values 'in keeping with the professional standards' and they 'need to actually own the curriculum'.

The need for responsiveness also related to a recognition that 'everybody's at different stages of their journey' [L3/U2] in realising *Curriculum for Wales*. L4/U2 said: 'I tell them that it's... a process and that people are at different points on that process. I think just raising their awareness of that is a good thing.' L3/U2 commented that 'our student teachers have seen all different types of things' and that it was important to have conversations 'in terms of the curriculum design and how what they're seeing in school is a little bit different than what we might describe' [L3/U2]. L10 and L12 (both U4) said:

Student teachers are now experiencing a far more diverse range of experiences... than they ever have. And that means we've had to shift our role to manage that. So, we've directly addressed that by providing spaces where they come together, share those experiences – critically reflect without being critical of what's happening in schools... giving them the space to hear from each other... to think about where those [experiences] perhaps reflect policy intentions, perhaps where they don't. But to try and always be ready then to go and work in this sector... [L10/U4]

You've got different schools at different stages with a different level of understanding for Curriculum for Wales and as a result, we have to prepare our students to face that and they will come back with a multitude of experiences, some that are working with schools that are very much supportive and they're very much entwined with the Curriculum for Wales and others that are struggling with it, and others that have interpreted it in a way that's maybe not of the essence that it was originally thought about when it was put together. [L12/U4]

A distinction can therefore be made between variation that arises from the nature of CfW as a curriculum that is contextualised for local needs, and variation that might arise from the different understandings of CfW (as discussed more fully in Section 6.2.3 below). However, L5/U2 noted that over a long career in teacher education they had found there had always been a 'little bit of a mismatch in terms of some of the aspirational things that we've always done in university around teaching and learning and the reality in school' although this might be 'exacerbated now because we're in this period of transition.'

Participants worked with school partners to support students to bridge between university and school settings, connecting theory with practice but also developing understanding of the journey that schools have been on in relation to CfW. L10 said:

The one thing that is probably worth emphasising again is not all of that happens at university.... some of this will take place co-constructed, co-delivered between university teacher educators and school-based teacher educators... When we look at curriculum design, they're in a school hearing not just from you, but from teachers who've been in on this journey for the last 5,6,7 years... and they're able to reflect on the fact that it isn't one thing, it's a journey. Their views have changed. This is what we tried. This is what we've abandoned. And that can be a really powerful idea that these discussions are taking place in schools with school-based colleagues. [L10/U4]

L13/U5 also commented on the 'strong relationship' with their 'partner schools,' and L1/U1 stated that their teacher education partners were 'not just partners on paper or, or intellectual partners, they actually co-deliver the programme'.

More broadly, L1/U1 spoke of CfW as a 'reform journey' that has encouraged partnerships with consortia, schools and, in their case, a research institute. This has led to 'capitalising on existing partnerships' in a 'shared space'. L13/U5 mentioned that their partner schools 'are arranged like communities' and that they had a close relationship with their 'QA leads'. L3/U2 said 'working closely with consortia' had helped 'us in terms of developing our shared understanding' of curriculum and curriculum realisation.

L13/U5 also noted the importance of the pastoral aspects of professional learning: 'what I've seen with all our partner schools is that they really care... about the students we send' [L13/U5]. L12/U4 said they were 'proud' of their colleagues: 'I think the team of people I work with are incredibly thoughtful and considered and have adapted to a very fluid environment... I think they've been absolutely brilliant.'

6.3.3 Theme 3: Responding to 'tensions': time, different interpretations, and system change

Teacher education participants showed a pragmatic approach in responding to 'tensions' [L12/U4]. They discussed three aspects of challenge in particular: time pressures, the different interpretations of CfW in the system, and the level of activity and 'constant' change [L12/U4] at system level. While retention and recruitment were also mentioned as sector-wide concerns by participants in one university [U4], this section focuses on the aspects of challenge noted across all university interviews.

6.3.3.1 Finding time and space for learning and development

Participants discussed time pressures relating to programme design, placements, the 'time poor' [L10/U4] nature of teaching, and student teachers' developing knowledge and skills. The PGCE was acknowledged as being more time pressured than undergraduate programmes because of its short and more intense duration. L3/U2 described the PGCE as 'jam packed' and said on the undergraduate programme there was 'more time to open up students to different ways of thinking'. L1/U1 noted there was 'not a lot of teaching time' on the postgraduate programme and so 'you haven't got a lot of time to look at' all the elements involved in learning to teach.

L11/U4 said that students 'do need that time to understand how children learn to read. How children learn to write. You know those basic... cross curricular skills.' However, L11/U4 said that 'those basic skills are... something that we are struggling to find time to cover' and spoke about not having time 'to look at' the 'finer detail' of pedagogy. They also commented on the shortage of time to consider 'what all the [curriculum] documentation means... What role do those descriptors play in what you will actually do in the classroom?'

Placements were also discussed in relation to time in schools and how partnerships maximised opportunities for student teacher learning given that there can only be a certain number of placements. L1/U1 spoke about students having two (PG) or 3 (UG) placements, so only seeing two or three examples of curriculum approaches in schools. The schools are 'good' but students may not see progressive practice in all departments or classrooms. Their programme therefore has several 'AoLE days' where students visit different schools to see a variety of practices and approaches. Secondary students work with a university tutor and different subject departments; primary students work with a university tutor and various schools focussing on different AoLEs. Other teacher education programmes created opportunities for cross sectoral (primary-secondary), cross curricular and interdisciplinary connections for teaching students where they worked together to extend knowledge of curriculum and practice. L12/U5 said they try to make sure that primary teaching students have a balance of AoLE teaching experience during placement, ensuring they focus on areas of weakness as well as strength. L11/U4 commented on the importance of 'finding those spaces... for [students] to take in how much agency they have' in relation to realising the curriculum and 'the implications' of that agency for their practice.

In terms of preparing students for working in schools, L10 said: 'We need [students] to understand that... schools are resource poor, time poor, there's lots of different priorities at the moment'. L5/U2 commented: 'We know teachers are massively time short. Of course they are.' However, they noted that student teachers have 'got a little bit more time than qualified busy teachers' to think about things that 'teachers out in school probably have just not had a minute to think about'. Part of what L5's programme does in working with students is to get them to think about the nature of their subject and the AoLEs and think about the opportunities involved in teaching these and 'what are their red lines... what are the sort of cherished things they want to hold onto' when they move into the profession full time.

Although participants spoke about time pressures on their programmes, there was recognition that initial teacher education was 'the beginning of the journey' [L1/U1]. Much of the work of the teacher educators focused on preparing teachers for their future careers, not just building the essential knowledge and skills that students would need for placements but supporting the reflective and inquiry skills that would support their development during the NQT year and as fully qualified teachers. L3/U2 mentioned the importance of making time for reflection, saying it 'was difficult' to 'draw out' time for this, but programme teams made space for reflective discussions. L3/U2 thought it was important to give students 'the confidence in terms of *Curriculum for Wales*' and, although there were time pressures in university, they felt that students had been 'exposed to a lot more professional learning design time that, you know, teachers in school would love that sort of opportunity'.

L6/U3 also discussed the 'developmental needs' of 'young teachers' in relation to curriculum and planning. They discussed their view that 'schools, in some cases, are on a little bit of a no man's land' in relation to 'the issue of planning' lessons. L6 contrasted the current curriculum with 'periods in the past' where teachers had 'fairly clear guidance on how to plan in the short term – now it seems less clear'. They felt 'you could flip that and say it's more about autonomy and it's about agency and all those wonderful things' [L6/U3]. However, L6/U3 thought that some teachers, including 'our young teachers leaving university', still needed 'those structures and scaffolds' of how to write a lesson so that it meets the needs of learners. L10/U4 also discussed planning as a complex activity in relation to the new curriculum and asked: 'how do you teach [planning to] someone in the very early stages of their teaching career?' They spoke about the importance of 'scaffolding' students' thinking so that they can plan 'meaningfully' [L10/U4].

6.3.3.2 'There is some confusion out there': helping students navigate different interpretations of CfW

Practitioners spoke about creating shared and consistent understandings of *Curriculum for Wales*. They also spoke about introducing students to aspects of curriculum design internationally to support understanding of how curriculum can be thought about (see Section 6.2.2.1 above). Participants acknowledged the different interpretations of CfW that exist in the system. L10/U4 said 'there is some confusion out there', while L6/U3 said 'schools do have misconceptions about the curriculum... it's in the public knowledge'. L4/U2 said: 'We need to be singing from the same hymn sheet, don't we really, in terms of... that vision for the curriculum. Unless people are working together and... getting the same professional learning ... then is it going to work?'

Participants in U2 discussed how the 'differences were becoming less each year' [L4] and that there is 'an evolution in a positive direction' in terms of working with CfW [L2].

L2/U2 felt that developing a shared understanding of CfW among partnerships 'happens over time' through ongoing dialogue. However, L7/U3 spoke of it being difficult to put one interpretation on the curriculum because of how schools were 'enacting' CfW:

We'll have one lead partnership school that will tell us they're taking a concept driven approach to the curriculum. We'll have another that is saying they're focusing on a skills base... They're all adopting a different approach. They all interpret their curriculum in a way that suits how they want to deliver it... I think at all levels, there are different understandings of certain concepts and themes. And I think that there isn't necessarily a single shared understanding. So even when you talk about pedagogical principles, for example, you will still hear people saying that one approach is better or more superior to another approach. Whereas actually... you need a balance of teaching approaches. [L7/U3]

L3/U2 said 'schools have decided to go a particular way and have a particular rationale behind that. And there's whole different ways of doing things.' They acknowledged the sensitivities of this working with partner schools: 'I think it's very difficult in terms of treading on toes, you know, who are we to say this is, you know, because even by sharing examples saying, well, are you saying that's the right way?' [L3/U2]. Part of their work with students was therefore to support them to think 'what's the reason and the rationale behind why the school is doing what they're doing in terms of curriculum' [L3/U2].

Participants spoke of the effect these differences had on student expectations and experiences. L4/U2 said: 'Sometimes we have students who find that quite difficult to navigate because... they're not seeing what they perhaps think they ought to be seeing.' L10/U4 noted that 'we've always had that sense where students were getting different experiences' but thought that 'perhaps it's just been sharpened' by *Curriculum for Wales*. L12/U4, thought that the 'broad range of approaches' to curriculum realisation was 'probably one of the key tensions we face'. They explained that this range of experiences 'on many different levels' was 'in a sense' putting 'more pressure on us':

How do we best equip our students? How do we essentially, not... scare them... You're going to see all these different things; you're going to have different experiences. Students want consistency. They are unsettled by hearing other experiences from their peers... That in some schools, Curriculum for Wales is very much at the forefront of everything the school does, and in some schools it's very much at the background, and it's evolving slowly. That unsettles them. [L12/U4]

However, L12/U4 said that the 'message' staff communicated to students was 'that's what you would expect to see when you have a programme of reform as we have in Wales... We can be comfortable with that.' Other participants also spoke about supporting students to navigate those differences and 'make sense of the fact that there isn't one cookie cutter model here' (L10/U4). L10/U4 felt that their role was 'increasingly to try and help students make sense of what can be quite a confusing situation on the ground'. They stressed to students that contextualisation was a 'good thing' [L10/U4] in relation to CfW, while L2/U2 spoke about how they 'explored' some of the 'myths' that existed in the system about CfW with students.

6.3.3.3 System change

There were various factors in the wider system that could create tensions with realisation. For example, participants discussed the ways in which schools and staff differed in the extent to which they were 'on board' [L4/U3] with CfW, and the extent to which the 'old and the new' [L2/U2] curriculum were coexisting at secondary level. L2/U2 felt that there were some tensions because 'you've got the part of the profession that's... meeting this with open arms and part of it that is pushing it to the side as the new fad'. L10/U4 spoke of the optimism that there had been in 2016 about the 'opportunity to rethink what Year 7, 8, 9 looked like', but 'how few schools have taken those opportunities up is a constant source of amazement and disappointment to me'. This participant felt there was 'an inertia and a small c conservatism' in how some were approaching change, speaking about some 'reticence' at secondary levels to quite embrace the changes [L10/U4]. L7/U3 also noted the challenge of there being 'so much activity going on' in the system 'perhaps without being joined up enough'. They felt that there was a 'danger of too many things happening' that 'dilute capacity' rather than 'having some really clear things to work on together.' L3/U2 felt there had been 'too much flexibility' around subsidiarity, and yet more guidance was needed as a result. They said: 'what do we mean by subsidiarity?... There hasn't been enough professional learning... and all of that agency hasn't been clear enough to say, well it doesn't mean crack on and do whatever you want' [L3/U3].

Understandings of progression also presented some issues according to participants in U4. L11 said 'I don't think we have that shared understanding of progression' while L10 discussed the challenges around the 'broad brushstroke' of the curriculum documentation in relation to progression. L10/U4 felt that it was difficult say what it means to make progress, particularly in early-stage reading. Some schools were bringing in commercial products to 'provide an answer to that question because the system isn't giving it.' The curriculum 'doesn't provide that more nuanced approach to what does progression look like' [L10/U4]. This discussion centred on how, of all the areas relating to CfW, assessment and progression 'probably hasn't moved on very much' [L10/U4]. L12/U4 said 'I don't know what the answer is at the moment... In schools you see various versions of what existed before slightly adapted, maybe the language has changed, but the essence of the assessment is still very much the same.' L10/U4 noted sectoral differences, however: 'Certainly lots of primaries are now reporting in a much more holistic way than they ever were before. I think it's slower in secondary. They still like their numbers and their grades and all the rest of it.'

In relation to sectoral differences, participants in U2 discussed their perceptions that primary schools and primary teaching students were 'managing' the change 'better' [L4/U2]. In part this was because the primary curriculum is more integrated, but in part it is about the influence of qualifications. L4/U2 said they were a 'little bit disappointed with the GCSEs' as they had seen them because 'they've not had enough of a change... they're too much like the old'. L3/U2 said that primary schools had 'more freedom' which lent itself to realising the curriculum because they didn't have 'that end measure as much' of the secondary qualifications: 'the GCSE has just been left there and that's caused a lot of challenge within the secondary [sector]' [L3/U2]. In contrast, L13/U5 noted some 'tension' between approaches to realising curriculum between lower and upper primary:

I think there is still a tension about, certainly when they get to year five, year 6, on the subject knowledge part of it... A lot of [our partner schools] have gone for the child-led approach in the lower years - where that tapers then into the knowledge [in upper school]... It's like we're in Year 4 now, Year 5, we've got to get them ready for comp... They want to make sure they've done right by their pupils when they leave.

L13 noted the effect of examinations even on upper primary: 'Where year 6 ends, you always know what the end game is... Yes, you've got the four purposes... [but] we're not assessing them at GCSE on the four purposes, are we?' L13 also felt that the curriculum was sometimes a 'bit tokenistic' in relation to the four purposes and it was perhaps difficult for learners to understand the 'high level' but 'very complicated statements' of the purposes and the ideas behind them.

6.4 Summary of key points

- ITE staff see Curriculum for Wales as a framework that enables responsive, flexible and learner-centred approaches to locally created teaching, but are concerned that such an understanding is not yet widely shared. Some participants reported their knowledge of CfW as 'evolving' and a 'journey', but all had a strong element of curriculum design in their programmes. Participating staff also reported that they work in strong partnerships with schools to support student teachers to become reflective, research-informed practitioners who can be responsive to the realities of practice.
- CfW did not 'drive' programme design. Although programmes included knowledge of curriculum design and curriculum making, pedagogy was seen as a more important factor for ITE provision, as was the development of the attributes, skills, dispositions and knowledge that effective teachers need to have. Students are engaged in considerations of: curriculum knowledge, curriculum design and critical thinking about curriculum; pedagogy (including subject specific pedagogies) and assessment; inquiry and reflection skills; and responding to additional learning needs. Across institutions, a variety of approaches is taken in university and with school partners to provide student teachers with the kinds of experiences they need to understand the AoLEs, interdisciplinary and cross-disciplinary working, and progression as a continuum of learning from age 3 to 16 and beyond.
- Teacher education programmes face challenges in terms of time available to prepare students for a system that is changing, and in relation to the different ways CfW is being understood and realised in schools. The sensitivities of working with partnership schools that had different understandings of CfW were recognised. Students may be unsettled by exposure to different approaches to curriculum realisation but are encouraged to see this as part of complex curriculum reform. Primary students and partner schools appeared to be generally more comfortable with CfW than those preparing for and working in the secondary sector.

7. Discussion

This chapter discusses the findings in relation to what is known about curriculum reform and realisation from literature and, where relevant, our previous findings from Phases 1 and 2. Large-scale curriculum reform is a complex undertaking involving significant interpretation and sense-making in the education system (Dave & Hoath, 2024; Ross, 2024). Sustainable curriculum change therefore relies on the architects of the reform producing and sharing a 'coherent understanding' of the curriculum that supports realisation in practice (Pietarinen et al., 2017, p.27). Earlier phases of the *Camau i'r Dyfodol* project suggested that there were different and sometimes competing understandings of CfW in the system (Morrison-Love et al., 2023; Makara Fuller et al., 2023). Phase 3 evidence suggests that these different understandings are still evident. Participants in Strand C discussed how the different interpretations in the system are creating challenges for developing consistent understanding of CfW with student teachers.

As participants from Strand B highlight, the CfW framework did not initially make clear that it aligns with a particular orientation or model of curriculum design. Some are therefore sceptical of the idea of alignment with a particular curriculum model, while others may feel that the process approach is just one of many ways to realise CfW (see Section 4.2.4.1). As we discuss in section 7.1.2, curriculum ambiguity can be problematic. The findings from Strand A, however, provide confidence that clarifying the nature of CfW means that shared understanding of CfW is possible and that practitioners can, with sufficient time and coherent professional development, realise the curriculum in consistent ways.

7.1 Curriculum realisation: complexity, coherence and alignment

We were struck by one practitioner's worry that the system may draw back from the changes that have been made because all schools are not 'on the same page'. Considering the evidence from our research and the literature, one reason the system may not be 'on the same page' relates to the inherent complexity of curriculum reform. Another reason relates to a need for clarity about what type of curriculum CfW is, to support alignment in the system. This section first discusses the complexity of curriculum reform (7.1.1), before exploring the need for clarity about the nature of a new curriculum (7.1.2) to enable the associated alignment of approaches to planning and assessment (7.1.3).

7.1.1 The complexity of large-scale curriculum reform

Large-scale, transformational curriculum reform is a 'vast undertaking' that is complex, challenging, costly, and time-consuming (Kandiko Howson & Kingsbury, 2023, p.1861). Curriculum reform is a system-wide enterprise: other policies that may have an impact on practice must 'align with or at least... not conflict with' the nature of the curriculum change (Murchan & Johnson, 2021, p.12). Effective communication about the reform is needed to avoid it 'being modified to the extent that it no longer resembles what was intended or does not address the concerns identified initially' (Murchan & Johnson, 2021, p.12). However, as Walsh (2024) writes, the 'achievement of coherence is an ongoing iterative dynamic process by stakeholders at all levels of the education system' (p.547). Complex curriculum reform therefore requires significant professional learning and reorientation at all levels of the system (Kandiko Howson & Kingsbury, 2023) if the reform is to lead to sustainable change (Walsh, 2024). Shared understanding and sense-making is required at all levels and in all contexts of the education system: practitioners, schools and settings, local authorities, teacher education institutions, professional learning providers, administrators and policy makers, and educational researchers working in the system (Jameson & Bobis, 2023, p.435).

Tikkanen et al. (2020) explain that it is crucial for a 'shared and coherent understanding of the curriculum reform' to exist at different levels of the education system if it is to succeed and be sustainable (p.545).

However, where the complexities of large-scale curriculum reform are not considered fully enough prior to or during realisation, the reform may only be 'partially implemented' or 'fall short' of its original intentions (Huizinga et al., 2019, p.115). Huizinga et al., 2019 argue that the risks may be increased when reform is based on teachers as curriculum makers and it is assumed that they have the knowledge to enable the reform to be successful (p.115). They note that curriculum design and curriculum making are not intuitive: for teachers 'to play a decisive role in curriculum reform' it is 'essential to support them... to develop their design expertise' (Huizinga et al., 2019, p.116–117). In addition, it is also helpful to recognise that professional experiences, beliefs, and understandings shape teachers' responses to curriculum reform. Curriculum change therefore involves not just a change to policy, but potentially transformational change to teachers' professional understandings and practices. As a result, it can feel disorientating (Kandiko Howson & Kingsbury, 2023). Supporting teachers' self-efficacy and capacity for change during complex curriculum reform is therefore important, but this takes 'time and space' to build shared understandings and practices (Gouëdard et al., 2020 p.21).

The role of school leaders in curriculum reform is also vital (Byrne, 2021) as they support schools, staff and parents to understand and navigate change (Murchan & Johnson, 2021). The professional culture in each school, its predominant values and perspectives, also have an impact on the success or otherwise of curriculum reform (Loh & Hu, 2021). School contexts have an impact on what 'teachers feel able to do' in respect of curriculum change (Harris & Graham, 2019, p.58). School culture and leadership approaches can constrain or enable changes to practice, particularly in terms of pedagogy (Loh & Hu, 2021, p.713).

As Priestley and Minty (2012) write, teachers can only be agents of change in respect of curriculum reform if structural and material resources in an education system enable this (p.50). This includes creating time and space for collegial dialogue, supporting the development of a collegial culture 'where innovation is encouraged', and 'tackling the performative cultures that act as an inhibitor to innovation' (Priestley & Minty, 2013, p.50).

Curriculum reform and curriculum making therefore involve changes at the institutional, individual, and system level. This involves 'dynamic processes of interpretation, mediation, negotiation, and translation, across multiple sites of the education system' (Sullanmaa et al., 2024, p.530). Given this complexity, it is not uncommon for educational stakeholders at different levels of education systems to have 'strikingly different understandings of reform aims and the ways in which they are reached' (Sullanmaa et al., 2024, p.528). To address this, 'constant efforts of shared sense-making' are needed throughout the education system (Sullanmaa et al., 2024, p.528). This ongoing process is particularly important given the recent context of a global pandemic when, as Walsh (2024) states, the disruption to networking opportunities meant that 'achieving shared understandings and coherence' became 'a more substantial challenge' (p.558).

Given what international literature indicates about large-scale curriculum change, it is not unexpected that some challenges remain during the realisation of CfW on the journey to shared understanding. Harris et al. (2020) have called the level of system change in Wales 'unprecedented' (p.2). It is therefore important to bear in mind that 'profound educational change takes time, and consequently so does witnessing the results of change' (Gouëdard et al., 2020, p.17).

7.1.2 Curriculum ambiguity: supporting autonomy and evolution, or creating uncertainty?

As we noted in Chapter 3, CfW has been described as a *purpose-led curriculum*. This term explains the fact that it leads towards and develops four purposes but does not make clear its design or its underlying theoretical basis or philosophy, nor does the term explicitly relate to known curriculum theory. Without clarifying the underpinning curriculum design of CfW, our Phase 2 data suggested that shared understanding becomes difficult, and the curriculum becomes realised in very different ways (Makara Fuller, 2023, p.49). Participants in Strand B noted that the framework for CfW does not stipulate alignment with a particular curriculum model. There was also a suggestion that the statutory elements should make this aspect clearer.

Graham Donaldson (2022) has explained in a recorded video conversation that the curriculum legislation 'deliberately pulls back from very tight specification' [15m 59s], because 'once something is put into legislation it is very hard to change' [16m 17s]. He says that CfW should not be seen as 'the 2018 curriculum' but as a document that is 'agile' and 'organic', able to 'grow and develop'. The legislative framework therefore avoids being 'too specific' about the detail and instead focuses on the 'big bits of the architecture' [16m 27s-16m 50s] (Donaldson, 2022). Donaldson (2022) explains that CfW needs to 'strike that balance between not having an atomistic education system where every school is different from each other' but still provide 'huge scope for schools to then interpret and define' the curriculum in 'ways that are in the best interests of their children and young people' [17m 10s]. The intention was for the CfW framework to provide enough 'commonality' to avoid atomised approaches (Donaldson, 2022).

Donaldson (2019) also states that the realisation process should not become focused on 'minutiae' but should focus on 'why we are doing this' [1.53s-2.0m]. The why relates to the four purposes: he stresses that 'the purposes matter - they are not just slogans' [2m 07s].

Our research findings suggest that commonality has been difficult to achieve because the 'huge scope' for interpretation has allowed for very different understandings of the new curriculum and a sense that any interpretation is in alignment with CfW. The Strand B data suggests that the process model of curriculum may be seen as something different to *Curriculum for Wales* rather than being the curriculum model that it aligns with due to its overall design, its developmental nature, and its focus on the purposes of education. This is not the first time that a lack of clarity over the nature of a curriculum has led to confusion and to difficulty in realising its potential. The introduction and development of *Curriculum for Excellence* (CfE) in Scotland could have served as an illustrative case.

Humes (2013b) writes that *Curriculum for Excellence* was originally described 'in terms of *values, purposes and principles*¹²' (p.24, original emphasis). CfE in its earliest form led towards four purposes: the overarching aim being for 'all children and young people to be successful learners, confident individuals, responsible citizens and effective contributors' (Scottish Executive, 2004, p.12). These purposes were then renamed capacities. In addition, CfE emphasised teachers as 'agents of change' in realising the curriculum (Hizli Alkan, 2024, p.886), placing strong emphasis on their role as curriculum makers. The experience of Scotland with CfE is therefore of interest in understanding the challenges of realising a curriculum where there is insufficient clarity about the nature of the new

curriculum at the outset of the reform process.

As the Royal Society of Edinburgh [RSE] (2020) highlights, one of 'the most significant shortcomings in CfE's implementation' was the 'lack of adherence to an overarching curriculum philosophy' (p.4). Wallace and Priestley (2017) comment that the vagueness of CfE was a deliberate choice on the part of the curriculum architects who intended this vagueness to support teacher autonomy in shaping their curriculum locally (2017, p.327; see also Carr et al., 2006, p.13). However, this lack of clarity led to one of the 'key barriers' to the effective implementation of CfE: 'a widespread and enduring lack of understanding of its core aims and expectations' (RSE, 2020, p.4). Confusion over CfE's nature created 'misconceptions' that affected realisation (Henderson & Cunningham, 2011, p.108). For example, there was confusion about the role and nature of subject knowledge (Day & Bryce, 2013; Humes, 2013a; Smith, 2016), the balance between knowledge and skills (Priestley & Minty, 2013), and the role and nature of interdisciplinary learning (Harvie, 2020; Humes, 2013a).

A 'proliferation' of 'well-intended' guidance documents was then created to try to clarify CfE, but these caused further 'confusion, and a sense of uncertainty and anxiety among practitioners' (McGuinness, 2023, p.16-17). The clarifications also shifted the nature of the original curriculum. From beginning with a strong resemblance to the process model, changes to clarify CfE something that is more like a mastery curriculum (Priestley & Humes, 2010, p.355). However, because schools were given the 'freedom to choose' how they delivered CfE, Day and Bryce (2013) noted that there were 'at least three major curricular models in practice' (p.64). They commented that schools within one local authority could be enacting different curriculum models meaning there would be 'no consistency within the

local authority in terms of school curricular structure' and 'little hope' of consistent approaches between local authorities in the system (Day & Bryce, 2013, p.64).

Many of these issues are similar to those experienced with *Curriculum for Wales*. (See Evans, 2023, Hardley et al., 2021, and Newton, 2020 for an overview of some of the issues relating to subsidiarity, consistency and clarity.) Across the three years of the *Camau i'r Dyfodol* project, our findings indicate different understandings of CfW in the system and different approaches to realising it (Morrison-Love et al., 2023; Makara-Fuller, 2024). We appreciate the point that the framework for *Curriculum for Wales* avoids 'very tight specification' (Donaldson, 2022) to allow the curriculum to evolve. We also appreciate that, like CfE, *Curriculum for Wales* is part of a modern curriculum trend that does not make explicit any link to curriculum theory (as we discussed in Section 3.2.4). However, as with *Curriculum for Excellence*, ambiguity may have been counter-productive to consistent realisation (see Hardley et al., 2021; Day & Bryce, 2013). Our work during Phase 3 has shown that clarifying the nature of CfW as a process-oriented curriculum has enabled shared understanding to develop that both aligns with its original purpose-led intentions and works with the framework and guidance that already exist.

7.1.3 Aligning curriculum design, planning and assessment

Walsh (2024) writes that alignment and coherence 'between vision, content, pedagogy, and assessment are critical components of successful curriculum design' (p.543). However, alignment and coherence need to extend beyond the curriculum documentation to other aspects of curriculum realisation in an education system. For example, professional learning should provide coherent

12 The CfE principles of curriculum design are challenge and enjoyment; breadth; progression; depth; personalization and choice; coherence; and relevance (see Humes, 2013b).

and consistent understanding of what approaches to teaching, learning and assessment align with the design of the curriculum. However, without sufficient clarity in the initial curriculum design it becomes difficult to provide 'effective and sustained' professional development during curriculum change (Byrne & Prendergast, 2020, p.301).

Coherent and aligned understanding extends not just to curriculum making in its broadest sense but to finer-grained aspects such as lesson planning and assessment. It was interesting to hear practitioners discuss the process approach as 'messier' but more meaningful for them now that they had moved away from 'paper heavy' planning [Practitioners 1 & 2 PSV6]. These practitioners recognised that functional planning did not necessarily help learning but instead was 'just ticking boxes for coverage' [Practitioner 1, PSV6]. A functional lesson plan lends itself to a focus on content coverage and can act as a 'cue card' for teachers (Uhrmacher et al., 2013, p.7). As practitioners discussed, this may help where a teacher is not a subject specialist or where absence cover is needed. Functional plans can also act for the purposes of accountability as they make explicit what content is to be covered and provide learning intentions against which learning is assessed.

Functional content-focused lesson plans might be a dominant approach (John, 2007), but other approaches are available. As with pedagogies, how lessons are planned depends on which underlying curriculum and pedagogic theories they are to align with. One form of lesson planning that aligns more fully with a process approach to curriculum making is what Uhrmacher et al. (2013) call *perceptual lesson planning*.

This focuses on 'the ways in which the lesson planning process itself can be transformed into a meaningful experience for the teacher' and so, in turn, for learners (p.6). Uhrmacher et al. (2013, p.18) advocate what they call the CRISPA approach:

ensuring that learning makes connections (C), involves some conceptual risk-taking (R), develops imagination (I), and supports learning through sensory experiences (S), perceptivity (P) and active engagement (A). Using this approach, lesson plans have no specific template, but are 'filled with meaning' (Uhrmacher, 2013, p.18). Professional learning which explores a more flexible approach to creating learning in relation to the CfW framework could therefore work with practitioners to consider forms of lesson planning that provide a more flexible, creative and responsive approach.

Professional learning about curriculum making also involves the development of shared understanding of non-performative assessment approaches. Practitioners in the system have been working on approaches to non-performative assessment that provide confidence that meaningful learning is taking place. Innovative ways of assessing learners were being developed and considered, and practitioners in Phase 3 were clear that tracking or ticking boxes indicates performance rather than depth of learning. However, data-driven assessment and evidence in books still feature in some schools and authorities according to our participants. There seems to be some uncertainty therefore about how far towards the 'more collaborative self-evaluation process' proposed by Graham Donaldson (2018, p.48) the system has shifted, particularly with respect to 'uncoupling' assessment from 'the pressures of external accountability' (Tittley et al., 2020, p.314).

7.2 Going forward with confidence

Evidence from international literature and from the *Camau i'r Dyfodol* project strongly suggests the need for consistent understanding of a curriculum if there is to be coherence and confidence in the realisation process. Balancing flexibility and autonomy with sufficient detail and clarity in the curriculum documentation is required for effective realisation (Sinnema et al., 2020). One way to support shared understanding and coherent realisation is through collaborative curriculum making between experts and practitioners (Huizinga et al., 2019; Voogt et al., 2015; Westbroek et al., 2019). Working from that premise, we have found practitioners to be both enthusiastic and able curriculum makers using a process approach.

Once the theory underlying the process approach was explained, and the approach modelled in relation to CfW, co-constructing shared understanding of the curriculum and how to realise it became more straightforward. As we noted in our Phase 2 report, having a clearly written single curriculum framework helps to avoid confusion (Humes & Priestley, 2021) and supports coherent curriculum realisation. It seems important for this to be done early, at the stage of curriculum framework design. While the system in Wales gave time for sensemaking early in the curriculum reform process, subsidiarity without sufficient clarity over the nature of the curriculum seems to have led to the 'variations' in interpretation that Alvunger and Wahlström mention (2021, p.239). We have found that clarifying the nature of CfW has helped reduce variable interpretations and allowed practitioners to be more 'on the same page' in understanding CfW. The clarification of CfW as aligning with the process model of curriculum design allows for curriculum making that preserves subsidiarity, allowing practitioners to create learning that is meaningful for learners locally and in relation to wider national and international contexts.

We hope that the findings from Phase 3 give confidence that the system can develop shared and coherent understandings of CfW. Our data suggest that real progress in realising CfW has been, and is being, made by practitioners and that Education Support Partners and those in ITE are working towards creating a coherent approach. We were struck by the concern and care for learners and for practitioners that Strand B and C participants showed. However, the data suggest that the system is still pulling in different directions with respect to understanding and realising the curriculum, particularly in terms of shifting to different ways of considering accountability. There are also some structural issues for secondaries where timetabling and content coverage for qualifications can cause issues in aligning with the intent and purpose of CfW.

However, time is a key aspect to realising a curriculum that rests on teachers as curriculum makers. Several practitioners commented across the data set about needing time for a more collaborative process approach to curriculum making. *Successful Futures* embedded the concept of subsidiarity in the new curriculum approach: 'encouraging appropriate ownership and decision making' in relation to the curriculum 'by those closest to the teaching and learning process' (Donaldson, 2015, p.14). International research evidences the time and knowledge that becoming a curriculum maker takes in systems where curriculum reform requires radical shifts in practitioners' thinking and practice (Hardley et al., 2021; Salonen-Hakomäki & Soini, 2023; Sullanmaa et al., 2019). This is particularly important where a system shifts from seeing 'teachers and school leaders as enactors of national policy' to seeing them as curriculum makers (Walsh, 2024, p.545).

Throughout the three phases of the project, we have been struck by practitioners' enthusiasm for the changes that CfW has brought. We acknowledge that the practitioners involved in Phase 3 may not be representative of practitioners in the system as a whole. The fact that they wanted to be involved in the project might suggest that they are supportive of the direction of travel the new curriculum brings. However, across all 3 phases of the project different system professionals have commented on the positive changes for them and for their learners in moving away from a high-stakes system of quantitative evidence, accountability, and content-driven lessons. Our data from Phase 2 (see Makara Fuller, 2023) and Phase 3 suggest that many practitioners involved in *Camau i'r Dyfodol* are reluctant to return to how things were before.

7.3 Summary of key points

- CfW represents large scale, transformational curriculum reform that is complex and demanding of all concerned. Phase 3 findings have so far indicated this complexity but have also indicated that effective and sustained professional learning can support coherent understanding and realisation.
- Curricula that are designed to facilitate practitioner autonomy and local curriculum making risk disparate understandings unless there is clarity over the nature of the curriculum in relation to its broad aims and expectations. Where there is vagueness or lack of clarity, professional uncertainty can result and the reform process may be hindered (Hardley et al., 2021).
- Clarifying the nature of CfW has been an essential step during the *Camau i'r Dyfodol* project in creating a shared understanding of CfW in theory and in practice. Early indications from Phase 3 are that the realisation of CfW through a process approach to curriculum making offers important benefits for learners and practitioners. Consistent realisation of CfW using this approach is both feasible and worthwhile. Strand A data show that practitioners value the changes that CfW has brought despite the challenges of curriculum change.
- It is important to bear in mind that 'profound educational change takes time, and consequently so does witnessing the results of change' (Gouëdard et al., 2020, p.17).

8. Answering the research questions, key messages and implications

In this chapter, we first answer the research questions from the data findings. We then present key messages that are indicated by the data so far. It should be noted that we will be able to give more in-depth messages in later reports when data from the other strands is presented and considered.

8.1 Answering the research questions

8.1.1 Strand A

What are practitioners' perceptions of working with a process approach to curriculum making in relation to Curriculum for Wales?

Practitioners recognised that the process approach was 'much more' about starting from 'what matters' and putting 'children and learning at its heart'. Practitioners thought the process approach led to deeper understanding of the purposes of learning and increased depth of knowledge from learners than previous approaches had done. Learners were able to articulate their learning and showed genuine interest, engagement, and enthusiasm for the topics. Practitioners felt more professionally engaged in learning and teaching and felt 'excited' and 'motivated' by the approach. One commented that they had 'enjoyed the term', another that they were 'excited to see where this leads next'.

A third said: 'I can now be the teacher I always wanted to be.' The process approach for one school had brought 'that creativity, that imagination, that awe and wonder' back into their curriculum.

Practitioners were both enthusiastic and able curriculum makers using the process approach. Planning for learning was 'messier' but more meaningful: it was more open-ended and responsive to learner interests and needs, therefore learning was more inclusive. There was less work in books, but learners produced a range of artefacts to show what they had learned and, importantly, were able to discuss their learning with their parents, with practitioners and school leaders, and with Estyn. Assessment processes had to be more innovative and dialogic and less focused on work in books. Practitioners thought that assessment should be meaningful and worthwhile: data-driven approaches and tracking software created 'mind-numbing, soul-destroying, tick boxes' that gave no meaningful information about learning or what mattered to learners.

Curriculum making using this approach does take time: a process curriculum is not 'plug and play'. Collaborative planning, and time and space for thinking about topics and teaching and learning approaches was seen as 'incredibly valuable'. However, this time was not always available. Supportive school leadership was also crucial in enabling the process approach to be realised and sustained.

Barriers to change included: the continued use or desire for pre-packaged curriculum materials; mixed approaches to realisation in the system; a lack of

interest from those who thought the process approach was only one way to realise CfW; and the perceived necessity from some senior leaders and local authorities for data-driven evidence of standards and performance. For secondary schools, the structure of timetables and the short duration of lessons made a process approach more difficult to realise and sustain. However, we saw from some secondary practitioners that, with revision to timetabling and provision of time for curriculum making, a process approach was possible and worthwhile. An ongoing concern was with the legacy of high-stakes accountability: participants were still unsure of Estyn's expectations, and some expressed concerns about the future direction the government might take in relation to realisation.

8.1.2 Strand B

What do Education Support Partners perceive are the implications of a process approach to Curriculum for Wales for: quality in the system, professional learning, and learning 14-16?

Strand B participants discussed some aspects of the process approach but spoke also in more general terms about realising CfW as a purpose-led curriculum. They recognised that the realisation of CfW at scale is complex. As a result, there currently remains a gap between CfW's vision as a purpose-led curriculum and its realisation in some schools. It was noted as being more difficult to realise CfW in the secondary sector, and the importance of leadership in the reform process was also highlighted.

Education Support Partners thought that evaluating the educational quality of a process approach should focus on the process of learning rather than the products. Considerations of quality might also be more bespoke by taking account of how learning was tailored to local contexts and the needs of individual learners making progress over time. Education partners highlighted that shifts in how quality was evaluated had already taken place in response to CfW as a purpose-led curriculum. However, it was also recognised that thinking about quality in relation to less tangible indicators of learning could create unease by comparison with the more traditional focus on indicators of performance that are easier to measure.

Strand B participants discussed the challenges facing those schools that have found it more difficult to realise CfW. These challenges include:

- the significant change in mindset required to move away from a professional culture that has been focused on performativity and measurement;
- practitioners and school leadership continuing to focus on content and performance rather than taking a more enquiry-based and experiential approach to developing the four purposes;
- perceptions that current qualifications are 'stuffed with content' can lead to a 'coverage mindset' in 14-16 learning;
- concerns that curriculum change would lead to a 'dip' in 'attainment'.

However, given that there can be what one education partner called a 'very long continuum' of curriculum realisation, Strand B participants recognised the need to work sensitively, empathetically and collaboratively with practitioners and school leaders 'where they are at' in the reform process. The concept of educational worthwhileness which is key to the process approach had given the opportunity to open conversations with practitioners and school leaders about the educational value of what they are doing in their classrooms.

8.1.3 Strand C

How are Teacher Education Institutions working with student teachers to support their understanding of Curriculum for Wales and how to realise it in practice?

Strand C participants highlighted the important role of partnerships, with partner schools and staff integral to supporting student teachers to become reflective, research-informed practitioners who can be responsive to the realities of practice. Teacher education lecturers faced challenges relating to time pressures (particularly on postgraduate programmes) that are particularly acute while trying to prepare students for a system that is in a process of change. While student teachers should now expect to experience curriculum making that is contextualised for local needs, a challenge lies in the different ways in which CfW is being understood and realised in schools. Strand C participants noted that primary students and partner schools appearing to be generally more comfortable with CfW than those preparing for and working in the secondary sector.

The sensitivities of working with partnership schools that had different understandings of CfW were recognised. Students may be unsettled by exposure to different approaches to curriculum realisation.

ITE staff encourage students to understand that variation is not uncommon during complex curriculum reform and focus on supporting student teachers' understanding of the realities of practice. Participants noted that the amount of activity and ongoing change in the system could be challenging and described knowledge of CfW and understanding of progression as evolving.

Teacher education staff discussed how they support understanding of CfW as a framework that allows teachers the agency and autonomy they need to create responsive, flexible, learner-centred teaching and learning. Participants discussed the strong element of curriculum design in their programmes, but several said that CfW did not 'drive' programme design. CfW was just one part of teacher education. Learning to teach was seen as a complex activity that required consideration of a range of professional knowledges and skills. Pedagogy was seen as a particularly important aspect of student teacher learning, as was the development of the attributes, skills, dispositions and knowledge that effective teachers need to have. Programmes are encouraging student teachers to develop knowledge and understanding of: curriculum design and curriculum making; pedagogies (including subject specific pedagogies) and assessment; inquiry and reflection skills; and how to support learners with additional learning needs. Across institutions, various approaches are taken in university partnerships to provide student teachers with the kinds of experiences they need to understand the AoLEs; develop subject and disciplinary knowledges; experience interdisciplinary, cross-disciplinary and cross-sectoral working; and to understand progression as a continuum of learning from age 3 to 16 and beyond.

8.2 Summary of key messages

The data analysis and wider reading involved in Phase 3 indicate that:

- Clarifying the nature of CfW has been an essential step during the *Camau i'r Dyfodol* project in creating shared understanding of CfW in theory and practice. Early indications from Phase 3 are that the realisation of CfW through a process approach to curriculum making offers important benefits for learners and practitioners. Consistent realisation of CfW using this approach is both feasible and worthwhile.
- Time, space, professional learning on curriculum theory and design, supportive leadership, and professional collaboration, are all important if participants' curriculum making abilities and enthusiasm are to be encouraged and sustained. Professional development that is aligned with the nature and intentions of CfW can support shared understanding and coherent realisation. Phase 3 has demonstrated the benefit of creating curriculum design teams as a way of supporting practitioners during curriculum change.
- Where a new curriculum is vague or does not clearly articulate its nature and underlying philosophy, confusion and uncertainty can result. This can lead to different understandings of the curriculum and different approaches to its realisation.
- The legacy of high-stakes accountability and examination backwash are creating some challenges for realising CfW's intentions as a purpose-led curriculum, particularly in secondary schools. The important role of school leaders in encouraging change was highlighted by Strand A and B participants.
- Partnerships in initial teacher education are working with student teachers to understand and realise *Curriculum for Wales*, but said the curriculum does not 'drive' programme content or approaches to professional learning. Learning to teach was recognised as a complex activity, involving critical thinking about curriculum, understanding of pedagogies (including subject specific pedagogies), knowledge of assessment, inquiry and reflection skills, and understanding of how to support those with additional learning needs.

8.3 Implications

The findings from Phase 3 suggest the following implications for realising *Curriculum for Wales* with greater consistency and clarity, and for sustaining coherent realisation in the system:

- Clarifying *Curriculum for Wales* as aligning with a process model of curriculum helps to avoid confusion over the nature of CfW and how to realise it. It also helps to resolve some of the challenges to curriculum realisation that arise when the curriculum is understood and realised in different ways that are sometimes incompatible with each other. This clarification does not introduce anything new - *Curriculum for Wales* by its nature has always aligned with a process model, whether that was made explicit or not at the design phase (see sections 3.2.4 and 7.1.2). Understanding how to work with CfW as a process model helps those across the system to take a more coherent approach to curriculum making, assessment and learning progression that focusses on the developmental nature of CfW in relation to the four purposes.
- The project has demonstrated that using Curriculum Design Teams (drawing on the work of Handelzalts et al., 2019) and a curriculum design workshop provides an effective approach to supporting curriculum making using a process approach to *Curriculum for Wales*. This approach could readily be used to scale up and build capacity in curriculum making across the system. It should be noted that this approach works with the curriculum framework, guidance and mandatory elements as they currently are and is in keeping with the nature and purposes of CfW. Therefore there seems to be no need for additional guidance documentation if CfW is clarified as a process model.
- Practitioners have demonstrated that they are enthusiastic and able curriculum makers using a process approach. However, the role of leadership in encouraging this is vital. To ensure this can be sustained and developed, the system more fully needs to give leaders and practitioners permission to shift from a performative approach to 'measuring' attainment and quality, to more nuanced professional evaluations of learning and development (of and towards the four purposes).
- Insufficient clarity over the nature of *Curriculum for Wales* at its inception has led the system to pull in different directions in relation to its realisation. For some schools and settings this means that realisation has been 'a long continuum' of evolving understanding. However, it is important to bear in mind that complex and 'profound' educational change takes time, 'and consequently so does witnessing the results of change' (Gouëdard et al., 2020, p.17). As a result, curriculum realisation still needs to be supported in the system. As part of this, Education Support Partners and teacher education partnerships will be vital to sustaining a coherent approach to the on-going realisation of CfW. As one group of Education Support participants said: there is a need to have 'the whole system talking as one voice, because it does feel at times as though there are lots of disparate messages' where things can 'get lost in the cracks'.

We hope that the findings and implications are helpful to Welsh Government, practitioners in schools and settings, and Education Support Partners.

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Appendix 1: Creating curriculum using a process approach: school stories

1 Primary school example

This is an example of how two practitioners created a unit for year 4 learners. It gives an overview of the practitioners' approach, the content, and indicators of engagement. The topic was taught over 10 sessions, 1 session per week.

The topic: money

The practitioners' thinking about the topic initially centred on the issue of money being an abstract topic and is becoming more abstract because of digital payments. They posed the question to learners: *I wonder what money is?* The children didn't understand where money came from or why it was important. The practitioners asked learners 'what they knew and what they wanted to find out'.

The learning

To provide the context for the learning, the practitioners began with two sessions on why money is important. The children discussed where money 'sits' in society: earning money, jobs, benefits, and some were interested in sharing their thoughts about how money was discussed at home. The children discussed having to wait for things because money wasn't available. They also discussed how some societies exist without money. This opened 'lots of reflections' about the importance of money because the children 'realised how it connected back to the experiences they could have in life'. Providing the context allowed the practitioners to stop when children were doing

calculations and ask: where would this calculation be useful and why? The purpose of doing the calculation then 'seemed to make sense' for learners.

The practitioners created sessions on vocabulary linked to debt and credit/debit cards. The learners played the budget game (a bank resource) to encourage them to use the vocabulary in context. The practitioners noticed 'a real buzz... you hear the language that we explored, being used... You could hear the critical thinking... And you could hear the learning just happening'. The game also linked to what had been discussed in the initial context: how to look after your money and the fact that a typical household has a set amount of money and that decisions have to be made about this. The children also looked at slang words relating to money and developed awareness of different categories of language. The children realised that 'when they discuss money, predominantly they use slang', but if they were to go into another situation that was more formal 'they would need to maybe use different vocabulary and understand what the equivalent words were'.

The practitioners also explored profit, and supply and demand, in the context of a fictional chocolate bar. Learners were introduced to the concept of a popular product: looking at sales demonstrated popularity through high demand. Learners were then given the scenario of a key ingredient becoming scarce: what could happen to the manufacture, the price, and the popularity? The class discussed 'supply and demand and how markets fluctuate, which... we would never have considered doing before. [...] [We are] intending to touch on ethics and we are looking at supermarket

competition and pricing.' The class also went to the Royal Mint: the practitioners planned the trip with learners, including timings, organisation, and pricing.

Engagement and learning

Practitioners' perceptions of engagement and learning included the following:

- 'What these children have achieved through this project is something that wouldn't have happened if I'd stuck to my own planning. The ethical side has been priceless... I look forward to those sessions – the slowing down of the pace, the discussions with the children – it's been so worthwhile.'
- 'And the empathy amongst the children, the four purposes... the integral skills, were all just pinging at us... We were really excited... It's their favourite day of the week and therefore they can't wait. We just reflected on the year... and I said [to learners] what was your favourite thing, and they said the money project... They've just been immersed in it.'
- 'And I think that's maybe why they are enthusiastic about this every Thursday because they've got real ownership... We tried to do that across the curriculum anyway... but I think we've probably embraced it more deeply in this.'
- 'I think what's really interesting is – because it's only been Thursdays – proportionately the amount of discussion the children have with us about their... whole learning experience this term is predominantly about this work...'

You would think, you know, they're immersed in the other topic that we've got for the rest of the week, that there would be a fairly proportionate spread. But I'm finding that the children want to talk far more about this than anything else.'

- 'And I think the knowledge content. Sometimes you can say, gosh... look at that – the children are really making strides in their knowledge of this and that's because they've had this sort of content, and it's working really well for them. But maybe we can't say so much about some of the more technical skills, so maybe thinking right, OK, we'll come back to that... so being flexible.'

2 Secondary school example

The second school story outlines how two secondary biology practitioners created a unit on industry using a process approach but fitting with an existing school theme. The topic was taught in one lesson per week with GCSE learners over 7 weeks.

The topic: industry

The planning of the topic was open-ended, starting from a focus on learners and consideration of the Statements of What Matters. The two practitioners were able to follow different paths with the topic to best suit their classes. For example, the practitioner who spoke with us said the other class did more on pollution because the learners were particularly interested in that. They then said of the general approach they took:

We want to stimulate discussion at the beginning and follow where the conversation goes, so on paper the plan has to be quite open-ended. There are ideas of where we could go, but sometimes they go on a tangent which is good... [so] instead of us knowing 'right, at the beginning of the lesson this is the success criteria and we're going to get to this at the end.'

This meant there were no 'neat endings' to lessons and less evidence in 'books': 'but that doesn't mean they haven't learned a lot'.

The practitioners could have chosen any industry but wanted to keep the topic local as this would be particularly worthwhile for learners to consider. The two biggest industries locally are tourism and agriculture. The practitioners felt that agriculture would fit best with their subject areas in science, but wanted learners to decide on the topic from their understanding of local industries. The learners were given the opportunity to say what they wanted to learn on the topic early on by using a Jamboard.

The practitioners felt it was important that the learners understood why they were learning about agriculture: 'not just that we do it, because we have to do it, but that they understand the importance of why we're discussing it'. The key focus was the learners and what would be worthwhile in their learning so 'that they get the best chance'. It was important that the learners all saw a purpose 'and they don't just think they have to jump through a hoop to pass the exam'.

The learning discussed below focuses on one class: only one practitioner was able to speak with us in the interview about the unit.

The learning

The practitioner started the first lesson by explaining to learners that the approach was being developed as part of the *Camau i'r Dyfodol* project. They then introduced the question: *What is industry?* Learners made a Jamboard of local industries: they said where family members worked, and the practitioner then asked questions to explore the industry in a bit more depth. For example, 'if they were doing bed and breakfast, which sector, which industry [is that]?' Learners then ranked what they thought was the most important industry in the area, and agriculture was seen as most important. The practitioner then did a virtual tour on Google Maps to explore agriculture in the local area. They started with an agricultural supplier and asked what it did. Learners used their own knowledge to explore the range of things the supplier did and could relate to people they knew who worked there.

They 'kept going along the map' – they discussed how much fuel vehicles would be using on real journeys and in agriculture ('and, of course, they talked about red diesel') – and through local towns, stopping to discuss landmarks relating to agriculture. They discussed a farm shop and how it was possible for farmers to 'sell on the doorstep', and 'went past the butchers' in one town and 'discussed the role of agriculture' to a butcher's shop. They stopped at a sale field 'and discussed what was happening there, discussed "food miles" and so on, because the slaughterhouse is over the road to the sale field'. The local area also had a fish farm and a veterinary surgery. They also discussed food chains, and what the food chain would be like without farming.

The practitioner then reviewed the learning so far and 'with GCSE at the back of the mind' decided to watch a video discussing more sustainable methods of farming. The video compares intensive farming to free range, and this opened 'good discussions' about animal health and welfare, including antibiotic use. This then linked to a subsequent lesson where the practitioner arranged for chicks to be brought to class following a risk assessment. Learners placed the chicks on an A4 piece of paper to understand the space they would have if intensively reared. 'There was a lot of discussion about welfare then.'

The focus then shifted to the meat industry. Again, following a risk assessment, one of the practitioners arranged for a lamb to be brought to the school. The learners discussed the breed, tail docking, tagging, gathering sheep, and the fact that the lamb might one day be food. The practitioner appreciated that not everyone would be able to do this, 'but it's something we as a school can do, it's something that's valuable to us as a school, and it's totally doable at this time of the year'. The learners discussed herding and what being a working dog would be like: 'what her education is going to look like, the commands, what are her working hours, what will happen when she retires...'. Many learners who had a pet hadn't understood that animals might 'have to work hard'.

Engagement and learning

The practitioner discussed several indicators of engagement and learning:

- '[No learners] said - you expect in some lessons - 'I don't need this, I don't need to know that'. There was none of that during the seven weeks, and I think that, for me, says *oh yes, it's worthwhile...*'
- 'So, what we then did was to try to make connections': although the topic was agriculture the practitioner explored how farming was interconnected to many other industries. Learners had family who were builders ('they put up sheds') and butchers ('but we don't farm') – so the practitioner encouraged learners to think about the links to agriculture as a key industry in the area. 'But without farming? You could see the connections there.'
- The learners 'did a lot of thinking there and you could see on their faces, they hadn't considered this before'.
- 'I want to do a "Pupil Voice" questionnaire to see what they think. I know they enjoyed it, but just to make sure ... Yes, they still talk about it, and those who haven't [done it have said] "You've done this. Year 9 have been allowed to do this ... We never did that", so it has spread... And it has also helped with behaviour.'
- 'I would have been able to do it in terms of just content [for] GCSE. I would have been able to do it in a lot less than seven lessons, but the journey would not have been the same – the outcomes in terms of the pupils' experiences would not have been the same.' The practitioner felt that when the time came in May next year for the exam and learners were revising the topic, 'more than any worksheet ... the fact that they did and saw helped them understand, it has helped them with getting that information'.