

Seminar 3: Process Orientation and Progression

Slide 1 - Introduction

Hello and welcome to this, the third of three seminars that were created to support the thinking and work of the co-construction group and phase two of the Camau i'r Dyfodol project.

Following an in-person event in Newport with the co-construction group explicitly considering the overall nature of curriculum for Wales, these three seminars explore what published research and thinking suggest for how we might think about curriculum, assessment and progression if Curriculum for Wales is seen, overall, as having a process orientation.

In the first seminar we started by exploring ideas of learning as growth and development and then described the process approach based upon the work of Lawrence Stenhouse and others as an alternative to framing learning in terms of outcomes. Here, content was still selected but was done so on the basis of careful consideration about what was worthwhile for pupils. Learning experiences were carefully designed by teachers in order to allow pupils to engage in meaningful ways with worthwhile content to allow them to develop towards the overall aims or purposes of the curriculum.

In the second seminar, we looked at the shift from ideas of measuring performance to ideas of supporting learning. We explored and compared convergent views of assessment and more divergent views of assessment and recognised that the process approach described by McKernan, Stenhouse and others invites us to think about assessment in more divergent ways - as evaluations and inferences that allow us to understand what each learner can do and what they know, rather than the extent to which they might have met a particular outcome.

Now, to support coherence in our own thinking, we must also think through what a process orientation means for how we understand and think about learning progression, and that is what we're going to focus on in this third and final seminar.

Slide 2 – How is Progression Usually Understood?

To begin with, we're going to have a quick look at the review of evidence that was undertaken as part of the Phase One report of the Camau i'r Dyfodol project. Now, a key purpose behind doing this review was to support people's practice by understanding what evidence there was for how curriculum, assessment, pedagogy and learning progression might be effectively integrated. Interestingly, as we looked across those papers that were rigorous enough to be included in the review, we found that the importance of integration was claimed, rather than evidenced. But we also found important insights about how learning progression was being understood. Often, we found that papers referred to learning progressions, that is to say representations of changes of learning that had been created, often as part of the work of research teams. As noted by Gallagher and Johnson, these learning progressions typically reflect particular ways of thinking and particular content that needs to be taught in order for understanding to follow. In this sense, they can be understood as domain and content specific models of learning.

Different people have taken different approaches to the development of learning progressions. Sometimes these begin conceptually and then bring an empirical evidence, whilst others sometimes begin more empirically. Regardless of this, their development

always necessitates research that analyses, in some form, what learners are able to do at different ages or stages of learning within particular subject domains.

Now, it's this type of analytical process that leads to the creation of what people often talk about as a sort of learning progression pathway through which learners would move, and that kind of sits at the heart of many learning progressions. Within this pathway, Harris also draws attention to the concepts of upper and lower anchors - these can be thought of as denoting the start and the end of learning for a particular part of this overall representation.

Finally on this slide, the observation made by Stevens et al. 2009 reflect very much our own observation that much, though not all, of the work on learning progressions has taken place in science education. Here they recognised that it was first and most commonly developed to unpack, define and sequence content and science subjects.

Slide 3 - Stevens et al

On this slide, we draw attention to a diagrammatic representation of a hypothetical learning trajectory that's presented and discussed by Stephens et al. This is helpful because it captures how learning progressions and trajectories are commonly understood in the literature. Generally speaking, such progressions are structured around the idea of moving from less to more sophisticated understandings of particular concepts, and in doing so, building a more complete and scientifically accurate understanding. Looking across the descriptions of the levels themselves, will give an indication of an order of content, and in supporting pupils to move from one level to the next level, consideration should be given to what types of instructional strategies might be most effective and assessment against these levels that helps to characterise where pupils currently are across the progression.

Stephens et al. argue that the descriptions of different levels in a progression should only detail productive steps towards an upper anchor where there's evidence that these are necessary for pupils to build understanding towards a learning goal. Now, while some learning progressions recognise that there can be more than one pathway through different levels, as Gallagher and Johnson observed, they reflect a largely linear model of learning, one in which pupils need to understand the first thing in the sequence before they're able to go on and understand the 2nd, 3rd and so forth. These forms of learning progressions can therefore be used by teachers to order content, to consider instructional strategies, and to define and assess learning goals.

What also came through in the papers that were reviewed, however, was how challenging and complex it can be to develop and refine learning progressions of this form. Harris et al. observe first and foremost some of the challenges around the balance of detail, something that's often referred to as grain size: on the one hand, too little detail about progression levels makes it difficult to assess learning over time, and on the other, too much detail means it becomes cumbersome and unmanageable. They also recognise more generally that designing learning progressions can be very complex and very challenging, and that to remain dependable they need to be continually refined using evidence from classroom learning and other sources, and that in itself is very resource and time intensive.

Slide 4 – Issues with the LP Approach

These observations by Harris et al. were some of a number of challenges around these forms of learning progressions that came through from the review. In this slide, we take just a few moments to summarise some of these from some of the authors that were included.

One of the first things that came through and which was reflected across several papers, was the idea that what's described in learning progressions might not fit very well with how learners actually think about or understand, in this case, concepts in Science and Mathematics, as discussed by Alonzo and Elby as well as Jin et al. Part of what makes the process of designing learning progressions so challenging is that they attempt to capture, in a much simplified way, a highly complex process shaped by internal as well as external influences. We can see that Lombard et al. are starting to capture some of this complexity when they talk about learning as involving these unpredictable jumps and erratic conceptual development, in many instances not progressing along a smooth stepwise continuum as learning progressions might suggest.

Harris et al. also note that given point in time, learners may simultaneously show characteristics of learning at more than one level across a learning progression. They may evidence more sophisticated thinking about some aspects of learning in a given domain, and perhaps less secure thinking about others.

In the final point here Schneider and Plasman return and interrogate a little bit further these concepts of upper and lower anchors. They open up wider considerations about learning for both pupils and teachers by asking critical questions about what it means to have a start and stop point for learning. Does it mean, for example, that learning is complete if a pupil reaches an upper anchor? And what does it mean for the learning of pupils who are not able to reach that upper anchor?

Overall, learning progressions provide a possible pathway that pupils might progress through when learning about particular concepts. Reflecting on what we've looked at so far in this seminar and what we've explored in the other two, a process orientated approach might also suggest that we think differently about progression.

Slide 5 – Progression in CfW

Now, before we unpack a little more about what it might mean to think about progression from a process orientation, we're going to turn our heads to Curriculum for Wales. Because what's exciting here, and what we spoke about in our Phase One report, is the idea that Curriculum for Wales seems to be thinking about progression in a different way to that which we typically find in published research papers. Rather than expressing progression as the often detailed and linear pathways that we typically see in published research, Curriculum for Wales appears to adopt a broader and more holistic vision of progression in learning. It talks, for example, about the idea of pupils making meaningful progress and of developing an understanding of what this means in different subjects and disciplinary areas. It speaks of learning as the process of developing and improving skills and knowledge over time but recognises that this requires a wide range of different skills, capacities, knowledges, attributes and dispositions. Notably, it also recognises the individual nature of learning and that different pupils will learn differently and at different paces.

But it also foregrounds pedagogy, and this sits in contrast to some of the more cognitive behaviourist approaches that we see underpinning the learning progressions discussed in

literature. These approaches tend to frame learning through content focused instruction rather than pedagogies to support pupils to engage in learning experiences. Overall, it would seem that Progression and Curriculum for Wales is a more holistic and learner centred idea.

Slide 6 – Supporting Progression

So what might a more holistic and learner centred idea of progression mean for how we think about things?

Well, it suggests a shift from measuring progress against predetermined outcomes and tracking over time to thinking about how progress in learning can be supported and developed for pupils. Tracking or measuring progression suggests that development is linear and common across pupils, rather than individualised and nonlinear. In the progression code, it states that support for progression should provide space for diversion, for reinforcement and reflection as a learner develops over time to new levels. Consequently, this is not linear or simply moving from one topic to another without making connections between learning and developing understandings of the underlying shared fundamental concepts.

Across each of the six AOL's, broad descriptions of learning are included to support learning over a period of years, and to help practitioners select content that provides breadth and depth to learning. It stresses in the curriculum guidance that these descriptions are not tasks, activities or assessment criteria, nor should they be broken down into more detailed criteria that are treated as a tick list.

Slide 7 – Progression in CfW: an Emergent and Dynamic Concept

Because much of this, in many ways is new ground, what we offer here is a way of thinking about progression that both builds from the work of those such as Stenhouse and McKernan that we explored in the 1st and 2nd seminars, and which is coherent with Curriculum for Wales where it is understood as having a process orientation.

We suggest here that progression might best be thought about as emergent and dynamic. We know that the process approach stems from ideas of growth and is concerned with the processes of learning that support pupils to develop towards the overall aims or purposes of the curriculum. In a sense, these are processes of enriched and deepened understanding. While content is selected, learning outcomes are not specified or assessed against. Assessment processes themselves become learning processes through which teachers can evaluate and develop what it is that pupils know and are able to do.

In a process approach, these evaluations lead to learning being developed in different ways, meaning that learning outcomes can't be predetermined. Overall, this means that progression over time has to be thought of more holistically, and that the progress pupils make emerges out of the learning processes themselves. It's in this sense that progression is dynamic rather than linear, emerging from the different forms of engagement that pupils have with worthwhile content in each of the areas of learning or interdisciplinary learning, and in keeping with what we explored in the second seminar, this way of thinking about progression reflects the divergent view that a process approach suggests we take. This would mean understanding progress in light of each pupil's learning journey, rather than as assessed against external criteria or indicators. The principles of progression in each of the AoLE's guide an understanding of progression and Curriculum for Wales and to

unashamedly steal McCormick's turn of phrase, help avoid the progression tail wagging the curriculum and learning dog.

Slide 8 – Progression: Emergent and Ipsative

By way of summary, then, and also to draw to a close our thinking from across these three seminar inputs, we suggest here that for a process orientation, progression might be helpfully thought of as emerging from curriculum, pedagogy and learning, rather than as something that's mapped beforehand to narrower areas of curricular content.

As part of this, there's also value in thinking of progression as ipsative. This idea, derived from Latin, means "of the self", and if thought about in terms of education and learning, is not concerned with normative or criterion referenced assessment, but rather how pupils have improved compared with what they themselves previously knew or could do.

Throughout these three seminars we've explored a range of different ideas, views and perspectives to try and understand something about what it means to take a process approach. While we did give an indication of the sorts of things we would explore, we didn't provide learning objectives or outcomes at the beginning, nor did we know beforehand the specifics of what we would actually cover in each of the three seminars. From the work of the co-construction group, we decided that content would be worthwhile and hence be selected if it helped people to deepen their thinking about curriculum, assessment and progression in terms of a process approach.

From one seminar to the next, we then had to work through what would be included and how this would be described with reference to published work, our own evidence from within the project and the Curriculum for Wales. Despite the fact we didn't specify any learning outcomes or objectives at the start of these seminars, we ask that everyone in their own heads just now just takes a few seconds to reflect back over your own learning since the start of the very first seminar - what progress have you made in your understanding of process approaches, assessment and progression through engaging with the seminars? How is it that you know you've made this progress? And how might you explain or describe the progress you've made to someone else?

All that remains to be said is that we hope these seminars have been worthwhile and, although they are short inputs, helpful to people nonetheless as they take their own thinking forward. Last and by no means least, a big thank you to everyone for participating.