

Learning about Progression: CAMAU Research Report April 2018

Expressive Arts







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Learning about Progression – Informing thinking about a Curriculum for Wales

Explanatory Fo	reword: Learning about Progression – A Research Resource	
Tailored to Meet your Needs		4
Introduction		6
Methodology		9
Section 1	Progression – Welsh Policy and International Insights	17
Section 2	Expressive Arts	27
Section 4	Conclusions and Framework for Decision Making	44
References		59
Appendices		77
ist of Additional Documentation (available on-line)		85

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Explanatory Foreword

Learning about Progression - A Research Resource Tailored to Meet your Needs

'Learning about Progression' is a suite of research-based resources designed to provide evidence to support the building of learning progression frameworks in Wales. 'Learning about Progression' seeks to deepen our understanding of current thinking about progression and to explore different purposes that progression frameworks can serve to improve children and young people's learning. These resources include consideration of how this evidence relates to current developments in Wales and derives a series of principles to serve as touchstones to make sure that, as practices begin to develop, they stay true to the original aspirations of *A Curriculum for Wales – A Curriculum for Life.* It also derives, from the review of evidence, a number of fundamental questions for all those involved in the development of progression frameworks to engage.

Within this suite of resources you will find

- Reviews of research into progression in children and young people's learning
 - research related to progression in learning generally and research on progression in learning specifically related to each of the six AoLEs
- Reviews of policies on progression from other countries
 - who have similar educational aspiration to Wales in each of the six AoLEs
- A review and analysis of progression as it is emerging in Wales in *Successful Futures* and in A Curriculum for Wales A Curriculum for Life.

We hope that you will find 'Learning about Progression' a useful resource. We recognise that a range of audiences will want to make use of its contents for a range of purposes and thus present information from 'Learning about Progression' in different ways, leaving you to choose which form is most useful for your purpose.

1. Learning about Progression: a comprehensive review of research and policy to support the development of Learning Progression Frameworks in Wales

The whole report, 'Learning about Progression' offers a comprehensive overview of research and policy related to progression in learning in general and to progression in learning in all six AoLEs.

2. Diving into Research and Policy in an Area of Learning and Experience

For individuals or groups who are interested in finding our more about the **evidence as it relates to an individual Area of Learning and Experience (AoLE)**, a detailed report is provided for each AoLE derived from Section 2 of 'Learning about Progression'. These six reports offer an overview of research on progression, an in-depth analysis of evidence exploring how different countries have tackled progression in an individual AoLE and evidence from research on progression within the discipline. These reports are entitled *Learning about Progression: Expressive Arts, Learning about Progression: Science and Technology* etc. You are currently using this mode.

4

3. Learning about Progression: From Ideas to Action

If you want to identify key messages from 'Learning about Progression' and your major concern is how to use the ideas as you develop progression in your AoLE, then read 'Learning about Progression: From Ideas to Action' as your first point of engagement. This provides

- key messages on progression relevant to all of the AoLEs
- an analysis of how the evidence from international policy and research relates to policy advice on progression in Successful Futures and A Curriculum for Wales
- principles that might act as a touchstone to promote a close alignment between ideas and action and
- information on the strategy used to inform decision making about the framework to be used to develop statements of progression.

'Learning about Progression: From Ideas to Action' is supported by

- a series of PowerPoint slides to introduce key ideas to others
- Decision Tree Workshops

The evidence emerging from 'Learning about Progression' indicated strongly that there were a number of decisions that AoLE groups had to take before embarking on the development of statements of progression. These related to the major questions derived from the research. Decision tree workshops were designed to support AoLE groups and others in that process.

Decision trees were used as the basis of workshop activities at AoLE meetings to support AoLE discussions. Each decision tree

- identified the decision to be taken
- offered evidence from the 'Learning about Progression' report (from research, policy and practice) to help inform discussions within each AoLE
- was consistent with the principle of subsidiarity and encouraged AoLE members to add to the evidence available
- provided a framework where each individual AoLE, having reflected on the evidence, agreed a decision proposal to be shared with the Coherence Group.

All proposals were reviewed to ensure that they were consistent with the vision *A Curriculum for Wales – A Curriculum for Life* and reflected what AoLE members believed would best serve young people in Wales.

Proposals from the six AoLEs were then submitted to the Coherence Group whose task was to reach agreement about which decisions had to be consistent across AoLEs to promote coherence across the system and where there could be flexibility for individual AoLEs. This would then inform the next stage of work of the AoLE groups.

Terminology within both the Welsh and English versions of this report reflects the range of current thinking about concepts of progression; this may lead to one term being employed with different but related senses and/or to one concept being referred to by different terms.

5

Introduction

The education system in Wales is in the process of transformation. Since the publication of *Successful Futures* (Donaldson, 2015) and the subsequent adoption of its recommendations in *A curriculum for Wales – a curriculum for life* (Welsh Government, 2015), a national strategy has been underway to build new curriculum, pedagogy and assessment arrangements to offer young people in Wales educational experiences that are fit for the 21st century. The creation of these new arrangements is the responsibility of all involved in education in Wales – communities, policy makers, practitioners and researchers – and is led by a network of Pioneer schools whose task it is to identify what matters in the curriculum and how progress might best be described and discerned. The Curriculum Pioneer schools are working in national groups related to each of the six Areas of Learning and Experience (AoLEs) – Expressive arts; Health and well-being; Humanities; Languages, literacy and communication; Mathematics and numeracy; and Science and technology. The CAMAU project, a collaboration between the University of Glasgow (UofG) and the University of Wales Trinity Saint David (UWTSD), funded by the Welsh Government and the UWTSD, seeks to support the Welsh education system in its task by providing evidence to address three main questions:

- How might curriculum, progression and assessment be described and developed in Wales to focus on learning and to promote better alignment between research, policy and practice?
- In what ways do models of curriculum progression relate to progression in learning emerging from evidence of learning and progression within schools and classrooms?
- To what extent is it possible to think of assessment as the use of evidence to enable future learning, as 'progression steps', rather than as a summary of past achievement? (And how might we avoid this focus leading to a narrowing of the curriculum?)

The focus of the CAMAU project is **progression**. It takes its starting point from *Successful Futures* (Donaldson, 2015) and *A Curriculum for Wales* (Welsh Government, 2015), builds on the work of the Progression and Assessment Group (Welsh Government, 2017) and on what the AoLE groups have identified as what matters. The project works with teachers, schools, researchers and policy makers (local, national and international) to bring different knowledge, skills and understandings together to explore how progression might best be described and developed in relation to the AoLEs and to investigate how progression steps might be most helpfully identified, described and used to support learning.

Progression matters. Since the seminal Black & Wiliam (1998) review highlighted the potential for formative assessment (or Assessment for Learning as it is sometimes called) to enhance learning, particularly amongst learners who found learning most challenging, countries internationally have sought to realise that potential in schools and classrooms. The way in which Assessment for Learning has spread has been compared to a 'research epidemic' that has 'feverishly spread into every discipline and professional field' (Steiner-Khamsi, 2004: 2). However, at best, the enactment of Assessment for Learning has been patchy (Hayward *et al*, 2006, Marshall & Drummond, 2006) and problems around the articulation of progression have been part of the problem. Wiliam & Thompson (2007) offer a framework to articulate the roles that key actors (teacher, peer and learner) play in the assessment process based on three key ideas: where the learning is going, where the learner is right now and how to get there. Implicit in this model is the centrality of progression. For example, for teachers to provide feedback that moves learners forward, they must have a conceptualisation of what matters next both for learning in the domain and for the learner. But self-evident as that might

seem, progression and its relationship to assessment and learning has proven to be a complex business. Indeed, in a recent article Baird *et al* (2017) argue that learning and assessment have been 'fields apart'. Recognising the inexorable relationship between learning and progression, Heritage (2008) argues that

'By its very nature, learning involves progression. To assist in its emergence, teachers need to understand the pathways along which students are expected to progress. These pathways or progressions ground both instruction and assessment. Yet, despite a plethora of standards and curricula, many teachers are unclear about how learning progresses in specific domains. This is an undesirable situation for teaching and learning, and one that particularly affects teachers' ability to engage in formative assessment.' (p.2)

Internationally, there are areas of the curriculum where work has been done to build understandings of progression. Pellegrino (2017) argues that research undertaken on cognition and learning has led to the emergence of highly developed descriptions of progression in particular curricular areas (science, reading and mathematics) and that these can form a sound basis for assessment design (e.g. Bransford, Brown, Cocking, Donovan, & Pellegrino, 2000; Duschl *et al*, 2007; Kilpatrick, Swafford, & Findell 2001; Snow, Burns & Griffin, 1998). There are, however, other areas where work related to progression is far less well developed.

Progression as a concept is built in to *Successful Futures* through the identification of reference points (Progression Steps). The term 'reference point' is important. It establishes learning as an expedition, with stops, detours and spurts, rather than as a linear process. The progression frameworks will be central to the work of teachers and learners as they seek to enhance the learning of every young person in Wales and thus it is crucial that these frameworks are dependable. To address this challenge, the CAMAU project seeks to work with policy makers and practitioners to build progression frameworks that are, as far as is possible, evidence informed and supportive of assessment practices that are consistent with the 'spirit' rather than the 'letter' of assessment for learning (Earl, Volante & Katz, 2011; Marshall & Drummond, 2006).

Theoretically, the design of the CAMAU project builds on the work of Senge & Scharmer (2001) and on the empirically derived Integrity model of change (Hayward & Spencer, 2010). This model argues that for change to be meaningful and sustainable, project design must pay attention to three main areas:

- Educational integrity (a clear focus on improving learning)
- Personal and professional integrity (participants have a significant role in the construction of the programme, rather than being passive recipients of policy directives)
- Systemic integrity (coherence in development at all levels of the education system)

The CAMAU Project is designed in three phases. This first phase is concerned with the co-construction of an evidence-based Progression Framework. The second phase is designed to develop, review and learn from feedback on the draft Progression Framework and the third phase will trial, evaluate and review the Progression Framework in action. In all phases of this project teachers, pupils, policy makers and researchers are co-investigators with the shared aspiration of developing high quality, well-informed curriculum, pedagogy and assessment arrangements for Wales.

This report provides evidence on three specific aspects of the first phase of the CAMAU project:

- the review of how progression is described and structured within frameworks in other countries
- the review of progression in learning (in policy and research) and of evidence related to progression contextualised in each area of learning experience and
- initial work undertaken to explore teacher perceptions of progression in learning. (Evidence on teachers' and pupils' perceptions of progress will be collected throughout the CAMAU project and will be published in the final research report.)

Following this introduction that includes a description of methodology, Section 1 of the report identifies ideas about progression as they emerge in *Successful Futures* and then analyses these ideas using evidence from research on progression.

Section 2 is divided into six sub-sections, each devoted to one of the six Areas of Learning and Experience (AoLEs) identified in *Successful Futures* (Donaldson, 2015): Expressive arts; Health and well-being; Humanities; Languages, literacy and communication; Mathematics and numeracy; Science and technology. The evidence offered to each AoLE is in two parts. The first part is a review of how different countries have conceptualised and interpreted progression in that area of learning. The second part provides insights into evidence available from research on progression relevant to the specific AoLE.

Section 3 provides evidence of teachers' understandings of progression.

Section 4 draws together themes emerging from the different sources of evidence analysed and identifies decisions which require to be taken to allow the development of statements of learning progression within the AoLE.

This research report is intended to provide a dependable evidence base to inform thinking in the AoLE groups as ideas of progression are developed. The CAMAU project team throughout the project will work with AoLEs to use evidence from international curriculum and assessment documentation of how progression has been conceptualised in the research literature and in policy contexts similar to Wales. When AoLEs have identified what matters in the curriculum and have built initial models of progression, the CAMAU team will obtain and analyse empirical evidence from wider teachers' and learners' experiences of progression in schools and classrooms: evidence from teachers' perceptions of what is central to enable effective progression in their pupils' learning; and pupils' reflections of their own progression in learning. This sense checking of existing and expert models of progression is intended to promote curriculum, pedagogy and assessment arrangements in Wales that are grounded in teachers' and young people's actual experiences in learning. This work will be reported in the final CAMAU project report.

Methodology

The central purpose of the reviews of international policy and of research on progression is to provide dependable information to AoLE groups to support their thinking. Thus both the policy review and the review of research are focused and purposeful. Discussion with AoLE groups made it clear that to be useful, the reviews must be clearly focused, succinct and directly related to the task which the groups are being asked to undertake. In addition, the CAMAU project sits within the demands of a development programme operating to tight policy deadlines: all activities must be undertaken within a limited time-frame and with limited resources. This is not a situation peculiar to this project.

Dependable Evidence Summaries

The methodology for the creation of dependable evidence summaries emerges from the recently developed EPPI (Evidence for Policy and Practice Information) protocol for a rapid review of existing evidence (O'Mara-Eves *et al.*, 2016). Rapid reviews have been commonly used in Health policy contexts to inform evidence-based practice. The Welsh Government has itself used the process in an educational context, e.g. in a review of the impact of poverty on attainment (Wilson, 2011). Rapid Reviews are contentious. They are seen by some as conforming to policy timelines at the cost of rigour in the literature or policy review. More recently, rapid evidence assessments have become more common in policy contexts and the method is referred to on a number of Government websites across the UK. The Department for International Development identifies three main uses for rapid evidence assessments:

'[They] provide a more structured and rigorous search and quality assessment of the evidence than a literature review but are not as exhaustive as a systematic review. They can be used to:

- gain an overview of the density and quality of evidence on a particular issue
- support programming decisions by providing evidence on key topics
- support the commissioning of further research by identifying evidence gaps' (https://www.gov.uk/government/collections/rapid-evidence-assessments -- accessed 10/07/17)

These aims are consistent with the aspirations of the CAMAU project. The challenge is to provide evidence that is dependable within the constraints identified.

Grant *et al.* (2009) suggest that if Rapid Research Reviews (RRR) are to be dependable, they need to be rigorous and explicit about their methodology and acknowledge the concessions that have had to be made to breadth and depth. The need to synthesise evidence within a limited time frame with the specific intention of informing decision making processes lies at the heart of the increased use of RRRs. Khangura *et al* (2012) argue that, despite the rise in the popularity of this approach, very little has been published on appropriate methodologies. They rename RRRs as evidence summaries and propose a methodology to increase the means by which the validity, appropriateness and utility of the review might be discerned. The authors identify eight steps developed from their Knowledge to Action programme. These steps have been adapted in the CAMAU project as the framework for the

development of the Dependable Evidence Summaries, designed to inform the thinking of AoLE groups as they tackle the complex challenge of describing progression.

Table 1: Outline of eight steps informing Knowledge to Action evidence summary approach (Khangura et al, 2012)

Knowledge to Action step	Task
Step 1	Needs assessment
Step 2	Question development and refinement
Step 3	Proposal development and approval
Step 4	Systematic literature search
Step 5	Screening and selection of studies
Step 6	Narrative synthesis of included studies (including assignment of evidence level)
Step 7	Report production
Step 8	Ongoing follow-up and dialogue with knowledge users

The Evidence Summaries in the CAMAU project have been developed as part of a process of ongoing discussion with the knowledge users – each of the AoLE groups.

Progression in International Policy and Practice

The countries involved in the international policy and practice review were identified in two ways. The first priority was to identify countries of particular interest to the individual AoLE group. Second, CAMAU team members sought to select countries with aspirations similar to those identified in *Successful Futures* where different approaches to descriptions of progression were illustrated. The analysis of policy in each country followed a three-stage process:

- eliciting information on curriculum design, 'what matters' in the curriculum and how progression is described
- making summary statements of the above
- analysing information from across countries

Table 2 on the next page provides the framework for responding to questions on progression. The complete protocol can be found as Appendix 1.

Recognising the difference between policy intention and policy enactment, the final stage of this policy review went beyond the analysis of policy documentation. As part of the work of the CAMAU project's National and International Advisory Group, leading researchers in selected review countries were invited to discuss the enactment of policy in their respective countries in order to provide insights into how ideas have played out in practice. These reflections on the implementation of policy and on lessons learned add depth and texture to the information available in policy

documentation and enhance the knowledge of policy-in-action afforded to CAMAU researchers by research publications.

Table 2

Country Information

Name of Country:

Year the curriculum was written/published/updated:

Website(s) where materials were found:

How is the curriculum structured? e.g. Is there a curriculum document as well as achievement outcomes or are these combined? Are there supporting materials for teachers? Is there one curriculum across all ages or is it split into primary and secondary?

How many stages/levels/benchmarks are included? Are they aligned with specific years?

What components/subjects/themes related to the AoLE are covered in this country's curriculum? What seems to be missing?

How does the documentation define 'what matters' in this AoLE? Does this include content knowledge, competencies, skills, etc? What is the balance between knowledge and understanding, skills, attributes, and capabilities?

How is progression defined? Is it defined explicitly or implicitly? You may need to look beyond the statements themselves at the supporting documentation and introductions to the curriculum. Give some specific quotes or examples.

Are key progression points identified as expected standards for specified ages? Or as descriptions of knowledge, skills, capabilities needed for further progression in learning? Or is it some combination?

What form do statements of progression take? Are they detailed or broad? Are they in pupil-first person language or written for the teacher? Provide some examples.

To what extent does the curriculum for this AoLE seem to align with what is written in Successful Futures? Does it seem to align with Donaldson's vision for progression? Give some examples.

Is there anything else worth noting? E.g., Is there anything particularly unique, innovative, or useful about this curriculum? Are there any aspects of the AoLE that are included in cross-curricular aims? Was there anything within this portion of the curriculum that seems to have connections with any other AoLE?

11

Progression in Research Literature in the Context of Policy in Wales

The review of research literature in the context of policy in Wales was undertaken in three strands

- a review of Successful Futures to identify what had been written about progression
- a review of seminal papers on the concept of learning progression
- six separate reviews, one undertaken for each of individual AoLE.

Whilst much has been written on curriculum progression, far less is available on learning progression. Papers for the review were identified using three approaches:

- expert knowledge (including recommendations from CAMAU Professorial Consultants internationally recognised experts in individual Areas of Learning Experience)
- search strategies
- reference snowballing.

As reviews for individual AoLEs were undertaken by several members within each AoLE team, detailed guidance was provided. Reviewers conducted independent searches using keywords, employing Ebscohost or a similar academic database. Key terms were contextualised in each AoLE, e.g. 'progression in mathematics'; keywords specific to particular domains were identified, e.g. in Health and well-being keywords included 'child development' and 'developing'. Texts published before 2000 were excluded unless identified by Professorial Advisors as seminal texts. Wales is a bilingual country. Where possible, eg, in LLC, the review included evidence from bilingual countries. However, we recognise that most of the evidence used to inform this report has been drawn from material published only in English, that the research has to a large extent considered practice in English speaking countries and that, with few exceptions, progression frameworks examined have been drawn from countries and states in which English is the sole or a major language of schooling. This limitation has to be recognised.

When lists of possible texts had been generated, titles and abstracts were reviewed to identify potentially relevant sources. Expanded or snowball searches were also carried out where authors cited within the original sources were investigated, either by following up on articles cited or by undertaking author searches within Ebscohost. In addition to recommendations made by Professorial Advisors, CAMAU researchers sought advice from colleagues in the University of Glasgow and in the University of Wales Trinity Saint David with specific expertise in a particular area. From this range of sources, a list of all papers considered was generated by each group and the screening processes that led to the final selection of papers to be reviewed were documented.

The analysis of literature review is intended to address critical questions related to progression within a particular Area of Learning Experience. To illustrate this process *Table 3* on the next page offers an example from the review for the Health and well-being AoLE. The full protocol can be found in Appendix 2.

12

Table 3

Literature Review- Critical Questions

- What evidence exists that informs our understanding of progression in this domain?
- In what ways have researchers described how children develop their knowledge/ skills/ capacities in this area? In other words, how do they model progression? For example:
 - According to the literature, are the changes that children make qualitative jumps (with big steps at key moments) or more gradual sophistication (children seen to gradually add more of the same skills over time)?
 - Is progression linear or could children move backwards and forwards?
 - Do the researchers see children's progression as something that can be impacted on by the environment and open to change, or is it fixed?
 - Is there one path that children seem to take in this area, or are there multiple paths? Do the researchers acknowledge that children may have different paths based on the context in which they grow up/learn?
 - Are there different models of progression for the same topic and to what extent do they overlap, complement, or conflict?
- To what extent does the literature focus on how children develop in terms of their knowledge/understandings vs. behaviours/skills?
- To what extent is the progression that is described at a micro-level (for one lesson/unit) or at a macro-level (across multiple years)?
- What ages are covered when describing how pupils learn in this area? Which ages seem to be missing or receive less adequate attention?
- What is the theoretical background of the relevant literature (e.g., education, public health, psychology, etc.)? We may get some insight by looking at the journal it is published in.
- Importantly, what seems to be missing in this area? What do we still not know? Is there little research on this topic?

Building Dependable Evidence: Synthesising Sources

The evidence emerging from across the six AoLEs was then compared with the review of *Successful Futures* and the more general research evidence on progression. From this synthesis key themes were identified. These themes were then used as the evidence base to inform for the final section of this report, Learning about Progression: from ideas to action.

This central purpose of this research report, *Learning about Progression – Informing thinking about a Curriculum for Wales*, is to provide a dependable evidence base to inform the work of each AoLE. To

13

maximise the use of the evidence to inform action in AoLEs, the research report is available in a number of forms.

The full research report is available to all interested parties. In addition, a domain specific report has been developed for each individual AoLE. Each individualised report contains key points from:

- the introduction
- the review of Successful Futures and research evidence on progression as a concept
- the policy review and research review specific to the area of learning experience
- 'Decision Trees' as an enabling artefact to stimulate use of an extensive evidence base in practice: 'Decision Trees' structure evidence from the research report succinctly around key questions for use within AoLE workshops. Their purpose to promote better informed decision making.

The decision trees identify crucial questions to be addressed by each AoLE as they design a progression framework for the Welsh curriculum. Using evidence from the research report, they offer insights into how issues have been tackled in different countries and suggest some initial possible advantages and disadvantages related to each decision. They also identify relevant insights from research. Examples of decision trees can be found in Appendix 3.

Using the decision tree approach as a stimulus for discussion and negotiation, each AoLE group was invited to respond to each question, to consider evidence available from research and policy and to add insights from their own professional experience. Once the group had considered the evidence, they were invited to develop proposal to be considered by the cross-AoLE Coherence Group. The role of the Coherence Group was to consider proposals from each AoLE and to take decisions to promote consistency and coherence across the six AoLEs.

Evidence from Teachers and Learners

A central feature of the CAMAU methodology is to promote approaches to progression that are empirically informed by evidence from practice.

In line with the principles of partnership, subsidiarity and collaboration which underpin the CAMAU research project, teachers are co-researchers. While teacher participation in the curriculum development process was an expectation arising from their employment in pioneer schools, participation in related research was voluntary. Consequently, all teachers in the AoLE groups were asked and agreed to participate in this research in accordance with the ethics procedures of the two universities.

Between April and July 2017, collaborative research focused on the articulation of teachers' conceptualisation of learning progression. Evidence was generated through approaches which acted as prompts to support this articulation. The aim was to draw on teachers' practical experience to contribute to developing learning progression frameworks.

Four research questions were developed by the CAMAU team. These were designed firstly to explore evidence of teachers' understanding of progression in learning emerging from the data and secondly to consider the efficacy of different approaches to the collection of evidence of teachers' understandings of progression:

- What evidence on progression emerges from teachers' articulations of progression in learning in their classrooms?
- What are the characteristics of learning identified?
- What types of activities led to teachers articulating their understanding of progression most effectively?
- What sorts of group structures and size supported such activities?

Evidence related to the first two questions would directly inform the drafting of progression statements; evidence related to the latter two would inform later research into teacher views to further develop these statements and to offer insights into processes of sustainable change.

The CAMAU team developed three principal approaches to gathering evidence relevant to the first two questions. It was agreed that the approach(es) used in each AoLE would recognise the views of teacher participants and would be reviewed in the light of evidence related to the latter two questions. The CAMAU team adapted tasks to take account of the broad direction of developing thinking within each AoLE about what matters.

Approach One – Time1-Time(n) (see Newby, 2010)

Teachers were supported to articulate typical learner progress across a period of time; the number of stages (i.e. T1-T2, T1-T3) used was determined by the perceived requirements of each AoLE. The fundamental questions posed took the form of:

- T1 Can you describe what, in general terms, you expect a learner to know, understand and be able to do at a start time (e.g. the beginning of the year)?
- T2 Can you describe what, in general terms, you expect a learner to know, understand, and be able to do at an end time (e.g. the end of the year)?

A variant of this approach explored progression made by three individual young people in a class as they moved through a phase: one who finds little challenge in relation to expectations; one who generally achieves expectations; one who finds expectations challenging.

Approach Two – Evaluation of progression in other countries' frameworks

Teachers were asked to examine critically aspects of frameworks from other countries. This afforded opportunities for teachers to review, from a relatively disinterested stand-point, policy and practice and to articulate views on models of progression, broad progression steps and appropriate language.

Approach Three – CoRe (Content Representation) (see Eames et al. 2011; Loughran et al. 2004)

This approach involves identifying areas of knowledge or skill that seem central to learning in an AoLE and for each of these areas responding to questions such as:

15

- What do you intend young people to learn about this idea or skill?
- Why is it important for them to know this?
- What prior or related knowledge do learners have of this idea or skill?

- What difficulties / limitations may be associated with progression in developing this idea or skill?
- How do you ascertain learners' progression or difficulties in developing this idea or skill?

Findings from this early stage of teacher research are reported in Section 3.

April 2018

16

Section 1: Progression – Welsh Policy and Research Insights

Progression in learning is crucial to the realisation of the aspirations of *Successful Futures* and it is essential that progression as developed across the AoLEs is well informed. As indicated in the Introduction, the evidence to promote well informed ideas of progression in learning comes from different sources. This section of the report reflects on two sources of evidence: evidence from policy – what *Successful Futures* says about progression – and evidence from research – an analysis of research on progression.

Evidence from the Policy Context in Wales - Donaldson, Progression and Learning

The concept of progression is at the centre of the new curriculum in Wales. It structures, describes, and enables learning. Donaldson's use of the term represents a shift in discourse that aims to restructure the learning experience for pupils, from discrete and generalised stages of attainment, to a **learning continuum** of individual achievement. Within this new structure, each learner moves forward fluidly through statutory education from age 3 to age 16, guided as appropriate by reference points, supported and challenged according to his/her needs, and assessed in relation to the four purposes of the curriculum.

The four purposes describe what all children and young people should become and achieve through statutory education as well as how they are perceived and positioned as they experience the curriculum.

Recommendation 2 (p.23) states:

'The school curriculum should be designed to help all children and young people to develop in relation to clear and agreed purposes. The purposes should be constructed so that they can directly influence decisions about curriculum, pedagogy and assessment'.

This follows the argument that:

'statements of curriculum purpose need to be formulated carefully so that they have integrity, are clear and direct and become central to subsequent engagement and development; in that way they can shape the curriculum and suffuse practice. Common understanding of **why** we are doing what we are doing is a powerful starting point from which to determine **what** it is we need to do and **how** we are going to do it. (p.22, author's emphases)

The purposes tell us about how children should experience their curriculum day to day. Learners progress to become more ambitious, capable, enterprising, creative, ethical, informed, healthy, confident individuals. Progression is characterised in terms of depth, complexity, level of abstraction, accomplishment and skill, for disciplinary knowledge and wider competencies, and each child's learning continuum functions as a journey through the curriculum. This journey will include diversion, repetition, and reflection, as appropriate for each individual to make progress in learning. There is greater responsibility for teachers to ensure child-centred learning to ensure effective learning takes place, since the pace of each journey is set according to the requirements of the learner.

Discerning the progress being made by each child is fundamental to establishing learning. While the concept of progression shifts control of the curriculum into the hands of the schools, it also shifts assessment from generalised phases and stages, to a greater focus on the evaluation of learning from the perspective of the child: a shift from 's/he should' to 'I can'. This means all children and young people can travel on the same continuum, regardless of any Additional Learning Needs. In the new curriculum, assessment is purposeful and designed to support the progression of each child's learning: what does each child need in order to move forward, what difficulties might s/he have, what are the next steps and how might these next steps best be supported?

Assessment is the means by which teachers seek to discern progress and to identify what is most important for future learning. Progression, and therefore achievement, in Donaldson's terms is positive, beginning from the child or young person's point of departure. Progression describes a forward movement for each learner which is not necessarily linear and which does not end at a given age or stage. Throughout the Donaldson Review, learning is conceptualised as growth. Learners build on previous knowledge/skills/competencies/dispositions in a continuous journey across and within the Areas of Learning and Experience.

Learning is defined through the concept of progression, which is represented as a coherent continuum without separation or interruption. The continuity that the new curriculum places at the centre of learning describes a holistic approach to the development of the individual, including experiential learning that is valuable in and of itself. Learning is the end goal of the education system. The learner is at the heart of the process and a fundamental element of the curriculum is choice. Learners are encouraged to take responsibility for their own learning, to become pro-active, and teachers are encouraged to ensure learning is meaningful and 'authentic', so that it has real world relevance.

What Successful Futures says about Progression

The term progression occurs 116 times in Successful Futures. Additional Document 1 provides a list of each occasion when the word progression is used and an analysis of the different contexts for the idea of progression. In *Successful Futures* (2015) the four purposes provide 'coherence, progression and flow' to learning intentions (p.21). Significant emphasis is placed on manageability:

'Having common Areas of Learning and Experience from 3 to 16 should promote and underpin continuity and progression and help to make the structure easier to understand' (p.39).

Successful Futures presents a clear vision for progression

- 1. Phases and key stages should be removed in order that progression can be continuous, increasing the potential for higher attainment by minimising transitions.
- Progression in each Area of Learning and Experience should be based on a well-grounded, nationally described continuum of learning that flows from when a child enters education through to the end of statutory schooling at 16 and beyond.

- 3. Learning should be an expedition, with stops, detours and spurts rather than a straight line. Progression is a 'road map' for each and every child/young person's progress in learning though some children and young people will progress further than others.
- 4. Progression Steps will be described at five points in the learning continuum, relating broadly to expectations at ages 5, 8, 11, 14 and 16 (staging points for reference rather than universal expectations but expectations should be high for all learners).
- 5. Progression Steps are made up of a number of achievement outcomes linked to what matters in the curriculum and linked to the four purposes ('I can' statements). Literacy, numeracy, digital competence and wider skills should be embedded as well as elements of the Cwricwlwm Cymreig.
- Achievement Outcomes should not be a checklist of knowledge or skills and should incorporate effective pedagogy.
- 7. Achievement outcomes should inform next steps and be framed as broad expectations achievable over a period of time (approximately 3 years).
- 8. Achievement Outcomes should use 'I can', 'I have' (and 'I am ready to') statements to describe progression (not over specified or overly vague this may vary across AoLEs).
- 9. Assessment (relevant and proportionate) should be focused on learning intentions and progression in relation to the four curriculum purposes and based upon the intentions set out in the Achievement Outcomes at each Progression Step within each Area of Learning and Experience. In each AoLE the Achievement Outcomes at each Progression Step will need to encapsulate the most important aspects of learning, take account of the ways in which children progress in different kinds of learning and recognise what they need to be able to know and do to move securely to the next stage.
- 10. Professional judgement is central to assessment (formative assessment with relevant summative information collected and used formatively within classrooms and schools).
- 11. Schools should use teacher assessment of progression systematically, together with other sources of evidence, to inform their self-evaluation for school improvement purposes.

The ideas presented in *Successful Futures* form the principles from which curriculum, progression and assessment in Wales should be developed and offer a touchstone against which emerging proposals can be evaluated.

Evidence from Research – an Analysis of Research on Progression

The inter-relationship of curriculum, assessment and pedagogy is recognised as being at the heart of learning. Yet, Wyse, Hayward & Pandya (2015), analysing the state of the field internationally, suggested that all too often research has focused on these as different fields leading to a lack of alignment in how curriculum, assessment and pedagogy are experienced in learning. This theme was developed by Wiliam (2017:1) who argued that theories of learning and theories of assessment lack connection because assessment and learning are trying to do different things and each field has been inward looking in identifying and addressing challenges. *Successful Futures* (2015) recognises the importance of promoting a strong relationship between curriculum, assessment and pedagogy. The policy states clearly that everything in education in Wales should be driven from the curriculum: the identification of what matters for a person to be considered educated. What matters in the curriculum in Wales is being identified by the Pioneer Schools in each AoLE. This research review

19

begins from that premise and explores how progression and assessment might emerge in relation to what matters.

Curriculum, Progression, Pedagogy and Assessment – a Coherent Whole

Built into every curriculum internationally is a notion of learning development but there are different ways in which this can be done. Some countries seek to describe outcomes in different areas of the curriculum through the specification of standards commonly related to ages and stages on development in schools. The aspiration is that by specifying standards, these will become teachers' expectations and student performance will improve. Yet concerns have been raised that many of the statements of standards do not provide the information necessary to achieve that aspiration and are not helpful in developing an understanding of where students are in relation to what might be regarded as desired goals (Heritage, 2008). This lack of clarity can lead to problems emerging between curriculum and learning, for example, teachers may find these statements of standards difficult to use for formative assessment purposes – where the learning is going, where the learner is right now and how to get there (Wiliam & Thompson, 2007). Learning progressions offer the potential to support learning more effectively as they offer teachers the opportunity to relate learning in their class to learning undertaken in previous and learning to be undertaken in future classes. They can make connections between prior and future learning and use information from formative assessment to discern where students' learning lies, allowing them to relate teaching more specifically to what matters and, crucially, to what matters next. Heritage (2008) suggests that 'Explicit learning progressions can provide the clarity that teachers need'.

Heritage (2008:2) also suggests that greater attention should be paid to the different levels of specificity used to articulate the curriculum. Some curricula specify detailed objectives to be mastered at each grade in sequence. When the curriculum is described in this level of detail, its 'grain size', it may be difficult to see how these discrete objectives connect to bigger, organising concepts and learning can become little more than a checklist of things to be learned. Curricula organised around core concepts or 'big ideas' and sub-concepts offer better opportunities for a stronger relationship between assessment and learning goals: assessment for formative purposes. However, Heritage (ibid) argues that care also needs to be taken with this approach for too often 'big ideas' are not brought together as a coherent vision for the progressive acquisition of concepts and skills. Without a coherent vision the potential for teachers to have a broad overview of learning in a specific domain is restricted. Broadly speaking, learning progressions differ in the span of the progressions and the degree of granularity in their description. Some models present a learning progression as almost a unit of work, whilst others, such as spelling, span several years. Often, the shorter the span, the greater the detail and specificity.

The work of Black *et al.* (2011:74) develops the idea that having a coherent model of progression that is closely linked to assessment and pedagogy will effectively support learning. They conclude that progressions are essential to high quality learning and teaching.

'One essential ingredient for a teacher is to have in mind an underlying scheme of progression in the topic; such a scheme will guide the ways in which students' contributions are summarized and highlighted in the teacher's interventions and the orientation the teacher may provide by further suggestions, summaries, questions, and other activities.'

Pellegrino *et al.* (2012) offer further insights into what is important in the assessment process, a process he describes as reasoning from evidence, and how assessment might relate to curriculum and pedagogy. He identifies three interconnected elements that should underpin any assessment and conceptualises these as an assessment triangle whose three sides are:

- a model of student cognition and learning in the assessment domain
- a set of assumptions and principles about the kinds of observations that will provide evidence of competences
- an interpretation for making sense of the evidence

Whilst all three elements are essential, in a later article (2017:361), Pellegrino argues that often the critical cognition component is missing. The focus of learning should be determined as far as possible by models that describe 'how people represent knowledge and develop competence in the domain of interest'. This, he suggests, is a distinguishing feature of an evidence-based approach to assessment design, where the most important aspects of student achievement are identified, aspects which then become the focus for 'inferences' and which should 'provides clues about the types of assessment tasks or situations that will elicit evidence to support those inferences'.

Although most work on learning progressions has been carried out within domains, deeper understanding of what is important to improve learning may require work to be undertaken across domains. Some more recent studies have begun to explore learning progression across domains. An example of this is to be found in Wylie *et al* (2017 in press) where the researchers sought to build companion learning progressions in mathematics and language. They argue that analysing mathematics and language learning progressions together offers a more detailed and nuanced picture of progression to inform teaching and formative assessment. By focusing on both mathematical knowledge and the discursive skills required to share that understanding, the researchers moved thinking from right versus wrong to a deeper understanding of the ways in which pupils were developing competences in mathematics and language. The application of content and language progressions, they suggested, provided teachers with a deeper understanding of the interaction of mathematical knowledge and language proficiency.

What are Key Characteristics of Learning Progressions?

Mosher & Heritage (2017:1) define Learning Progressions as

'inferences or hypotheses describing the order of definable steps, stages, or levels that students' understanding and skill in a subject or discipline are likely to go through over time in response to instruction and experience as they reach the levels of understanding and skill that are the goals of instruction.... The inferences should be based on empirical evidence from student work, assessment performance, responses to clinical interviews, or other observations by teachers or researchers. They may describe likely steps or growth paths in the context of typical instruction, or they could describe what becomes possible with more effective instruction.'

Learning progressions are pathways along which students are expected to progress. These pathways or progressions are the basis of teaching and assessment. Learning progressions can be conceptualised in different ways but as part of a review of a range of different approaches to learning progressions, Heritage (2008) identified certain common features.

- All models conceptualise progression as a continuum of increasing sophistication of understanding and skills as young people move from 'novice to expert'. (p.4)
- No definition contains references to grade or age level expectations, in contrast to many standards and curriculum models. Instead, learning is conceived as a sequence or continuum of increasing expertise.
- Learning progressions adopt a developmental view, inviting teachers to conceptualise learning as a process of increasing sophistication rather than as a body of content to be covered within specific grade levels.
- Progression also implies a sequence along which students move incrementally from novice to more expert performance. Implicit in *progression* is the notion of continuity and coherence. Learning is not seen as a series of discrete events, but rather as a trajectory of development that connects knowledge, concepts and skills within a domain.
- Learning progressions are accommodating. They recognise that students do not move
 forward at the same rate or with the same degree of depth and progression and see this as
 an expected part of learning.
- Learning progressions enable teachers to focus on important learning goals paying
 attention to what a student would learn rather than what a student would do (the learning
 activity). The learning goal is identified first and teaching, pedagogy and assessment are
 directed towards that goal. 'Consequently, the all too common practice of learning being
 activity driven rather than driven by the learning goal is avoided.' (p.5)
- Learning progressions are an important part of assessment to support learning. Clear
 connections between what comes before and after a point in the progression offers
 teachers a better opportunity to calibrate their teaching, to address misunderstandings or
 to develop skills as revealed by assessment, and to determine what important next steps
 would be to move the student forward from that point.

Further key features of learning progressions are identified in the work of Duschl *et al* (2007) and Pellegrino (2017). Duschl *et al*. (2007) suggest that a distinctive feature of learning progressions is the evidence base from which they are developed. They define learning progressions as evidence based hypotheses about how students' understanding and ability to use core concepts and explanations become more sophisticated over time. These hypotheses represent the pathways that young people are likely to follow as they make progress. These pathways should be empirically tested to ensure that they relate closely to how most students experience progression and should be empirically evaluated to determine their efficacy to discern whether or not lead to better learning.

Pellegrino (2017) suggests that although learning progressions are not developmentally inevitable, they may be developmentally constrained. He suggests that numerous progression paths are possible and that progress rather than being linear may be more like 'ecological succession' (p.362). A learning progression offers one or more possible paths but 'does not represent a complete list of all possible paths'. In addition, at any point in the process, an individual may demonstrate thinking and/or practices that could be considered to be at different points on the path. Mosher & Heritage (2017) support this view, adding an optimistic view of learning progressions which suggests that there is a small number of likely paths, that the steps along the way are clearly distinguishable and that they represent understanding and related skills which are stable for reasonable periods of time. They also re-emphasise the complex nature of the progression concept, its non-linear pathways, its confusions and regressions as learner thinking develops over time to new levels of sophistication.

The inter-relationship between the learner and progression is further complicated by regressions that can occur in particular circumstances, e.g. stress or challenges that feel to them to be too great. This approach may align more closely with Bruner's spiral curriculum than any model of linear learning, building on the hypothesis that 'any subject can be taught effectively in some intellectually honest form to any child at any stage of development' (Bruner, 1960: 33). Pellegrino (2017) argues that there is a clear connection between progress in learning and the quality of teaching to which the young person is exposed. High quality curriculum and pedagogy are essential for optimal progression as is the teacher's confidence in dealing with the complexities of differentiated instruction.

Learning Progressions and Audience

There is a further characteristic of Learning Progressions worthy of consideration: the audience. Many learning progressions are written primarily for teachers and tensions can arise if a single learning progression attempts to serve too many purposes. For example, Heritage (2008) draws attention to the problems that can arise if it is assumed that the same degree of granularity will serve both planning and assessment. The degree of granularity in a learning progression designed to ensure that teachers have an overview of progress from novice to expert is very different from the degree of granularity necessary to enable teachers to support learning formatively: the latter would require a far more detailed analysis of progress in learning. She proposes that a possible way to deal with this issue would be to have different learning progressions serving different purposes. An overview learning progression to offer a multi-year picture of the journey from novice to expert. These could then be linked to learning progressions related to each of the key building blocks of what matters in the curriculum. These more detailed learning progressions would support teachers in formative assessment whilst their relationship to the multi-year learning progression would allow them to locate their own work in the bigger learning picture. This could also be helpful in offering support to teachers who are working with young people whose learning is outside the range of normal expectations for the group or year with whom they are working.

Learning progressions can also be written in ways which provide a framework for learners to understand the learning journey they are on. Heritage (2008) argues for the importance of learners being aware of longer term goals and the relationship between those and their day to day progress. It is unquestionably desirable for students to know what the longer-term goal is or what the final product of the learning will be. Increased involvement in learning occurs when teachers share with the students what their longer-term goals are and enable them to participate in evaluating the degree to which they have met the goals. The changing role of the learner within social constructivist and sociocultural theories of learning is highlighted by Baird et al. (2014, 2017). Within these overlapping theories, there are common learner characteristics. Learners are active in the learning process, involved in self and peer assessment, in social processes and interactions where there is a changed 'contract' around learning. If the aspirations for this new relationship, this new contract between the learner and society, as articulated in Baird et al. (ibid) are to be fulfilled, there are implications for the level of transparency in curriculum, progression, pedagogy and assessment. Learners need deeper and more meaningful understandings of what matters in learning and a voice in what matters. They would have the right to understand the longer-term journey in the domain being studied and the responsibility to work with teachers and others to engage in learning

processes and, crucially, in assessment as part of learning. Learning progressions are a crucial part of this process.

Progression and Assessment

There is strong research evidence that approaches to formative assessment can and do improve learners' attainments (Black & Wiliam, 1998; Wiliam *et al.*, 2004). Black *et al.* (2011) suggest that these approaches are based on principles of learning well informed by cognitive research. They define the principles as

- 'Start from a learner's existing understanding.
- Involve the learner actively in the learning process.
- Develop the learner's overview, i.e. metacognition this requires that students have a view of purpose, have an understanding of the criteria of quality of achievement, and self-assess.
- Emphasise the social aspects of learning (i.e. learning through discussion) as these make a unique contribution.'

There are strong areas of overlap between this definition and Heritage's (2008) conceptualisation of formative assessment:

- eliciting evidence about learning to close the gap between current and desired performance (Pellegrino (2001) would describe this as drawing inferences);
- providing feedback to students; and
- involving students in the assessment and learning process.

Both definitions privilege the role of the learner in learning and assessment.

Black et al. (2011) make a strong case for the centrality of teacher assessment. They suggest that teachers' in-classroom assessments offer opportunities to achieve far better standards of validity than national or state tests. The evidence they generate is richer and more meaningful. However, they caution that significant professional development (2001:106) is necessary, for teachers' professional judgements to be both valid and reliable. The authors present five steps essential to the design and implementation of any learning exercise. The exercise must have strategic aims that involve understanding concepts and methods of a subject or developing reasoning skills. Teaching has to be planned, involving what the authors describe as choosing the tactics for realising the strategy in order to 'help build a picture of learners' existing understanding, especially with respect to the learner's location on the learning progression, so that the next challenge can be framed to take that understanding further' (2001:77). The plan then has to be implemented, reviewed and summed up. The researchers argue for the importance of a curriculum as an evidence-based model of the paths through which learning typically proceeds used to inform both pedagogy and assessment. These 'road maps' they describe as central for all five steps outlined above. And they offer an example of a road map for the scientific concept 'atomic-molecular theory of macro properties'. Through this example, the authors suggest that we can create roadmaps by synthesising several sources of evidence (2011: 85)

- research results about common pupil misconceptions
- internal logic of the concepts involved
- indications from learning theory about difficulty of the types of thinking involved

 results from assessment items that indicate problems/possibilities with the topic sequence

They argue that, although previous qualitative studies on this topic provide rich understandings of progression of learning, they are limited by the specific contexts in which they were developed. They propose larger scale and longitudinal studies to deepen understanding of trajectories of change of individuals.

Black et al. (2011) argue that progression is needed for formative assessment:

'(a) to formulate a task or test so that the responses can provide evidence of learning progression, (b) to formulate helpful comments, tailored to the individual needs of each student, and (c) to give clear guidance on how to improve, all require a clear road map, that is, a view of the learning aim and of the steps along the route, or routes, that the student needs to take to get closer to the aim in light of his or her position en route.' (p. 75)

Pellegrino (2014, 2017) supports this view. He suggests that learning progressions are helpful ways to think about the assessment of student learning. Like Black *et al* (2011), he argues that learning progressions should contain multiple elements, including *Learning Performances*. These he describes as

'the kinds of tasks students at a particular level of achievement would be capable of performing. They provide specifications for the development of assessments by which students would demonstrate their knowledge and understanding. Such assessments allow one to observe and infer students' levels of competence for major constructs that are the target of instruction and assessment within and across grade levels. Thus, an adequately specified learning progression should include an approach to assessment, as assessments are integral to learning progression development, validation, and use' (2017:362).

He also concludes (Pellegrino, 2017:363) that when detailed maps of learning progression exist at grain sizes to support teaching and assessment, these will form a conceptual base that can be used as evidence of longer term growth and change, evidence currently collected through large-scale assessments. This will improve the validity of the assessment because there is a clearer idea of the construct being measured and the level at which student learning and performance is understood.

In conclusion

There is recognition in both policy in Wales and research of the importance of learning being articulated progressively. Although in Successful Futures (2015) this is described as a *learning continuum* and in research as a learning progression, these terms share many common characteristics. For example,

- Curriculum, assessment and pedagogy should be seen as an integrated whole
- Progression should be continuous
- Progression is not linear
- The journey from the point a young person transitions into the curriculum until the point
 where the young person transitions into life beyond school education should be sufficiently
 clear to allow both teachers and learners to make sense of how day to day activities relate to
 the learning journey over time.

 Assessment for learning has the potential to enhance young people's learning but there are a number of areas to be considered as part of curriculum and assessment innovation if this potential is to be realised

The key messages emerging from the review of all the evidence sources examined in this research report and possible implications for how evidence from policy and research might influence emerging practice are considered in the next section of this report.

April 2018

26

Expressive Arts: Review of Frameworks

Purpose of the report

The report seeks to identify key issues and decisions relating to writing Achievement Outcomes which will constitute Progression Points in pupils' journeys through the learning process in Expressive Arts. It is a principle of *Successful Futures* and of the CAMAU Project that the Achievement Outcomes and any associated description of learning progression should enable teachers to know what kinds of knowledge, skills and aptitudes they should aim to develop with learners at all stages of their learning journey. Achievement Outcomes should enable both teachers and learners to see the next steps to be taken.

The report does not comment separately on each of the frameworks reviewed. Rather, it identifies characteristics of types of approach to describing progression and achievement and refers to relevant frameworks as representative of these approaches. These types of approach may offer potential models for proceeding in the CAMAU Project; the report notes factors which would come into play in deciding for or against particular ways of doing so.

Frameworks reviewed

Frameworks for arts or expressive arts education from the following sources were reviewed:

- Australia
- British Columbia
- New Zealand
- Ontario
- Quebec
- Scotland

In addition information about approaches taken in different national frameworks was derived from the National Foundation for Educational Research (NFER) 2004 publication *Curriculum and Progression in the Arts: an International Study*.

A Note on 'What Matters'

The complexity of the relationship between of 'what matters' and 'progression' became apparent during the review process. In some frameworks the 'main aims' of the curriculum are articulated at the start and then elaborated in detail in a description of the curriculum or in a description of learners' expected achievement (e.g. learning or achievement outcomes, standards, descriptions of progression) or in descriptions of both. It is to be expected that the achievement outcomes of a framework reflect or encapsulate what the designers of the curriculum most value in the process of educating young people. This is the justification for focusing in this review of curricular frameworks on the means by which progression has been described, without explicit treatment of what matters as a separate concept.

However, there is one important 'what matters' issue that requires decisions at a strategic level: specification of the contexts in which achievement outcomes and progression can be described. The issue here is the range of aspects of Expressive Arts with which any individual framework deals.

The frameworks reviewed identified similar arts subjects. All included *Dance, Drama, Music*, and *Visual Arts*; the Australian framework refers to *Music and Sound Arts* and the Scottish one to *Art and Design*. The Australian framework has in addition a *Media Arts* subject area.

Most of the frameworks also included more detailed indication of the constituent content of the subject areas. For example, the *Ontario* framework spelled this out as follows:

Dance:

Elements: body, space, time, energy, and relationship.

Drama:

Elements: role/character, relationship, time and place, tension, and focus and emphasis.

Music

Elements: duration, pitch, dynamics and other expressive controls, timbre, texture/harmony, and form.

Visual Arts:

Elements: line, shape and form, space, colour, texture, and value; Principles: contrast, repetition and rhythm, variety, emphasis, proportion, balance, unity and harmony, and movement.

The NFER 2004 publication reported that about half of the 21 countries or states surveyed organised their curricula into broad groups of subjects rather than individual subjects: in these cases, there was a broad subject area called 'the arts' (or something similar); within that arts group, these countries also tended to identify, for example, music, dance and visual arts as specific areas of study. In other countries arts subjects were described and taught separately; typically in such countries dance was an aspect of physical education and drama formed part of the first language curriculum.

The *British Columbia* arts education curriculum presents a well-argued case for requiring teachers and students to give attention to both an integrated broad conception of expressive arts education and to the development of knowledge and skills in the individual subjects:

'Collectively, the curricula for Dance, Drama, Music, and Visual Arts are referred to as arts education. Because each subject is distinct – requiring unique knowledge, skills, and attitudes – each subject has its own curriculum document. However, all four arts education curricula do provide opportunities for growth in three common areas of learning:

- creating, expressing, perceiving, and responding
- knowledge, skills, and techniques
- personal, social, cultural, and historical contexts.

The common areas of learning make it easier for teachers to integrate instruction in arts education at the elementary level. Such integration offers many advantages for both students and teachers, provided the unique characteristics of each subject are respected and made evident to students. In planning instruction, teachers will also want to consider that the three common areas of learning are themselves closely interrelated — none can be properly addressed without reference to the others.'

In other cases, the documents reviewed do not always reveal the justification for the ways adopted of setting out the broad structure of the framework. These strategic decisions depend on the intentions of the whole curriculum development. In Wales these intentions are primarily evident in *Successful Futures* (Donaldson, 2015) which states:

'The Expressive Arts Area of Learning and Experience will span art, drama, music, dance, film and digital media, encompassing wider creative aspects such as improvisation. The Review has taken account of the report of the review of Arts in Education in the Schools in Wales, which described 'the arts' as including the making, performance, expression or appreciation of one or more of: music; drama; dance; film and digital media; visual arts and design; literature and creative writing. All of these art forms will be addressed within the curriculum, mainly through the Expressive Arts Area of Learning and Experience, but outcomes for literature and creative writing will form part of the Languages, Literacy and Communication Area of Learning and Experience.'

The aspects of Expressive Arts which the Expressive Arts AoLE group chooses to value and identify as the key components of what matters – whether broadly defined and/or defined as discrete arts subject areas – will inform the writing of achievement outcomes.

Possible Models for Writing Achievement Outcomes

The frameworks reviewed provide a number of models, the relevance, use, advantages and disadvantages of which can be considered by the Expressive Arts AoLE group. These models are considered in the next sections.

Almost all the frameworks considered include, in one way or another, very detailed descriptions of the knowledge, skills, capabilities and aptitudes that constitute successful achievement in the Expressive Arts. Learners show progression in these achievements as they move through stages of learning (whether specified standards to be achieved at particular ages or, in a few cases, descriptions of what learners can do at successive stages of a learning journey irrespective of age). This level of detail in descriptions of achievement is an important feature for the CAMAU Project to consider. One of the aims of the Project is to develop a progression framework that will help teachers and learners to see, and indeed to develop automatic awareness of, the appropriate next steps as dialogue and assessment for learning take place during the learning process. Key decisions for the Expressive Arts group arise concerning both the determination of the central aspects of achievement in the AoLE and the specification of the appropriate (that is, helpful and manageable) level of detailed description of achievement. Another necessary decision concerns the best location of detail. Should this information be situated within the curricular/progression framework itself or in associated material available to teachers as part of their continuing professional development?

Age-related descriptors/standards or steps in a learning journey?

The NFER 2004 review of the arts curricula in 21 countries or states identified teacher professional judgement as the predominant basis for assessing learners' performance and progression. Teachers commonly assessed progress in the arts through observation and assessment of portfolios or

samples of work. Three types of professional judgement were identified across the range of curricula reviewed:

- of attainment in relation to the content of the curriculum, as detailed for each year group
- of whether or not an individual pupil had achieved a certain specified standard by a particular age
- of the level to be assigned to an individual learner's performance, independent of age using a developmental scale of attainment within a particular discipline, ranging from novice to expert (though typically as numbered levels).

The report included exemplification of both self-assessment and achievement of standards in various countries.

The third of these assessment models uses in principle a progression framework which describes a real learning journey, irrespective of age or stage of schooling, rather than specifying curriculum content to be covered or a standard to be achieved by year groups or particular ages or stages. The countries or states adopting this approach at that time included *Queensland*, *Victoria* and *England* and *Wales*. The National Curriculum of England and Wales set out a broad progression framework as numbered levels but it was understood that not all learners would achieve a particular level at the same time.

Among the more recent frameworks reviewed, the *Scottish* Curriculum for Excellence is based on the same principle. In *New Zealand*, too, there is an expectation that students will progress over 8 levels from years 1 to 13 but, to account for a normal variation in the rate of progression, each level spans up to three years; more extreme variance is acknowledged – not all children start in the same place and not all children will follow the same path or pattern of linear progression. Pupils with special learning needs, those who come from non-English-speaking backgrounds and those who are more able and talented may all progress at quite different pace. Even though a national or state framework may recognise formally that learners will progress at different speeds and through different pathways, the description of achievement outcomes and progression in documentation may not reflect actual progression steps in real learning.

Although the NFER review describes the provision made for arts education some 15-20 years ago, the approaches described still raise issues requiring resolution in the current development of the Welsh curriculum and progression framework. On the basis of consideration of the broad models found by the NFER researchers, the CAMAU group needs to take a key strategic decision whether to write achievement outcomes that specify Expressive Arts knowledge, skills, capabilities and dispositions

- as standards to be reached by particular year groups or ages
- as descriptions of learning that is essential for further learning, so producing a set of outcomes that constitute an empirically well-founded progression framework.

An associated strategic decision which is needed, whichever kind of framework is chosen, relates to the number of points at which achievement outcomes should be written. Ideally, in a 'learning' progression framework, as opposed to an age-related one, the number of such points should emerge naturally as crucial learning steps are identified. However, in the case of the CAMAU development, the Welsh Government requirement, articulated in *Successful Futures*, must be taken into account: that Achievement Outcomes constituting Progression Steps should be written for ages

5, 8, 11 and 16. The AoLE group will need to decide how to successfully design an achievement outcomes framework that both reflects real learning progression and provides a form of benchmark description of achievement at the specified ages.

More particularly, the fact that 15-20 years ago Wales was using a progression framework in the National Curriculum which was taking at least some account of pupils' varying pace of progress may encourage the AoLE group to consider the beneficial aspects of previous national developments where appropriate in moving towards the writing of new achievement outcomes.

Central Generic Ideas and Detailed Description of Subject Knowledge and Skills

The description of achievement is typically organised in terms of generic, central ideas or activities accompanied by detailed elaboration or expansion of the knowledge, skills, activities or capabilities expected at each stage of progress or development or each year group. All the frameworks reviewed spell out this detailed description of achievement in terms of knowledge, skills, activities, capabilities in the specific arts subject areas: Music, Drama, Visual Arts, Dance ...

The *Ontario* curricular and progression framework identifies desirable achievement for arts education in considerable detail, specifying both knowledge and skills that students should achieve and the quite wide range of activity and thinking they should engage in. The framework spells out for every Grade (year group) Overall Expectations and Specific Expectations for all aspects of arts work:

- (i) Creating and Presenting,
- (ii) Reflecting, Responding and Analysing,
- (iii) Exploring Forms and Cultural Context

Fundamental Concepts for each Grade are also specified. The thinking, communication and application skills which learners should demonstrate are detailed as:

- Knowledge & Understanding
 - Knowledge of content
 - Understanding of content
- Thinking
 - Use of planning skills
 - Use of Processing skills
 - Use of critical/creative thinking processes.
- Communication
 - Expression and organisation of ideas and understandings in art forms including media
 - Communication for different audiences
 - Use of conventions in the arts e.g. vocabulary orally and written forms
- Application
 - Application of knowledge and skills
 - Transfer of knowledge and skills
 - Making connections within and between various contexts.

There are thus many pages per Grade of detailed guidance on the expectations. Teachers are required to make an assessment judgement on each of these expectations. The judgement is recorded as a mark, where 1 = limited effectiveness, 2 = some effectiveness, 3 = considerable

31

effectiveness and 4 = a high degree of effectiveness or thorough effectiveness. The expected State Standard is 3.

The three overarching organising activities in Ontario (Creating and Presenting; Reflecting, Responding and Analysing; Exploring Forms and Cultural Context) are matched in other frameworks by similar structures of broad central ideas/activities.

In *New Zealand* the achievement objectives of each component of the Arts Curriculum are structured under four interrelated strands:

- Understanding the Arts in Context
- Developing Practical Knowledge in the Arts
- Developing Ideas in the Arts
- Communicating and Interpreting in the Arts.

These strands are 'what matters' at the highest level in the arts. Under each strand described, there are descriptors of what a learner is expected to achieve at each of the 8 levels of achievement. They begin as relatively simple broad statements of what a child knows or can do and become increasingly more sophisticated and specific with reference to higher order skills and complex concepts. For example, for the achievement outcome *Understanding dance in context* in Dance Level 1 a student would be expected to:

• Demonstrate an awareness of dance in their lives and in their communities.

At level 8, the skills, aptitudes and knowledge to be demonstrated in respect of this same outcome are:

• Investigate, analyse, and discuss the features, history, issues, and development of dance in New Zealand, including the contribution of selected individuals and groups.

In a separate linked document there are expansions of all the achievement outcomes which provide at every level much detailed description of what is expected.

The Quebec framework identifies 10 generic outcomes for learning in the arts:

- openness to the world of sensitivity, subjectivity and creativity
- expression of their own reality and vision of the world
- symbolic languages
- intuition and imagination
- discovery and construction of the meaning of things
- contribution to the transformation of cultural and social values
- awareness of the history and evolution of societies
- forms of intelligence
- communication through artistic production
- inspiration based on the cultural and social values of daily life.

It then develops a detailed account of skills and progression in Content Description and Elaboration sections. Three Competencies are identified for each 'subject area' (music, dance, drama, visual arts); as an example, the Competencies for Visual Arts are:

To produce individual works in the visual arts;

- To produce media works in the visual arts;
- To appreciate works of art, traditional artistic objects, media images, personal productions and those of classmates.

A 'developmental profile' for each Competency is specified for each of the three cycles of learning. Each of these profile descriptions covers a number of aspects:

- Focus of the Competency
- Key Features of the Competency
- Evaluation Criteria
- End-of-Cycle Outcomes
- Essential Knowledges
- Vocabulary
- Suggestions for Using Information and Communications Technologies.

British Columbia uses a comparable, if somewhat different, model of the same 'generic ideas and activities plus detailed subject knowledge and skills' approach. There broad competencies are called 'big ideas'. They are not identical across all Grades (year groups), but become more complex and challenging as students progress from year to year; the detailed descriptions of what they mean also become more sophisticated as Grades advance. A notable point about the British Columbia framework is that, while the detailed exemplification of the meaning of the big ideas is clearly subject-related, it is not set out in separate 'boxes': ways in which the different subject areas contribute to the big ideas are listed in one box parallel to the big ideas statements.

The Australian arts curriculum identifies key principles and elements:

- making and responding
- languages, symbols, techniques, processes, skills of the arts
- creativity, critical thinking
- local and regional cultures
- design as a common fundamental strategy.

These elements are elaborated for each stage/band in Content Descriptions, Content Elaborations and examples of knowledge and skills for the band. A characteristic of the Australian approach is that what matters is clearly identified as the *curricular experiences* defined in the Content Descriptions. These in effect indicate for teachers and learners the pedagogical experiences that constitute high quality arts education and the understanding, skills, attributes and capabilities that students develop through them. Achievement outcomes are not as detailed as in the other frameworks reviewed. They are generic statements at each band directly related to the Content Descriptions as described above: e.g.

Years 7 and 8 Achievement Standard

'By the end of Year 8, students identify and analyse how the elements of drama are used, combined and manipulated in different styles. They apply this knowledge in drama they make and perform. They evaluate how they and others from different cultures, times and places communicate meaning and intent through drama.

Students collaborate to devise, interpret and perform drama. They manipulate the elements of drama, narrative and structure to control and communicate meaning. They apply different

performance styles and conventions to convey status, relationships and intentions. They use performance skills and design elements to shape and focus theatrical effect for an audience.'

The achievement outcomes are thus in effect statements about the curricular and pedagogical experiences students should have; they are not 'standards' which determine the curriculum but statements of expectations concerning the activities in which learners should have participated and the skills which they should have practised, which become more complex and sophisticated as they pass through the bands. This concept of achievement outcomes as experiences which become more complex and sophisticated over time may be an important one to keep in mind in making decisions about the nature of Expressive Arts achievement outcomes.

This idea is also found in the *New Zealand* documentation. It argues that, within each of the arts disciplines, learners develop literacies as they build on skills, knowledge, attitudes, and understandings at each level of the curriculum. Through arts practices and the use of traditional and new technologies, learners' artistic ideas are generated and refined through cycles of action and reflection. By building on and revisiting learning from previous levels, arts programmes in each discipline provide progressions of learning opportunities in all four strands. This spiral process ensures that students' learning is relevant, in-depth, and meaningful.

Graded or Ungraded Descriptions of Performance

The frameworks review has thrown up a further issue on which the Expressive Arts group will need to consider. Some frameworks seek to differentiate learners' performance at the same chronological or progressive stage by using a grading system or mark. For example, *British Columbia* places students' performance in one of the following categories (with detailed descriptors): *Not Yet Within Expectations, Meets Expectations* (minimally), *Fully Meets Expectations* and *Exceeds Expectations* at every year. *Ontario* applies a mark: *1 = limited effectiveness, 2 = some effectiveness, 3 = considerable effectiveness* and *4 = a high degree of effectiveness or thorough effectiveness*. The expected State Standard is 3. The NFER 2004 Report reported similarly graded systems in *Massachusetts* and elsewhere in the *USA* and in *Victoria, Australia*.

Other frameworks, such as *Australia's* current national one and *New Zealand's*, offer ungraded descriptions of complex achievement and interacting skills.

This matter is related to the number of stages of development it is appropriate to describe in a progressive framework. A possible justification for the kinds of grading or marks systems shown may be that descriptions of very broadly defined frameworks do not give teachers and learners enough detail in deciding on next steps in learning. An obvious potential disadvantage is the danger of labelling learners and the associated motivational issues. Approaches like that of New Zealand seek to provide desirable guidance and support for pedagogy and assessment for learning through additional associated material and encouraging continuing professional development activities. The Expressive Arts group will need to consider and decide for or against a partly graded system.

'I can' statements

Most of the Expressive Arts frameworks reviewed described achievement outcomes and progression without using 'I can' statements. *Successful Futures* proposes that the Welsh curriculum should use 'I

can' statements: it will be possible to write the achievement outcomes using that formula, once decisions have been made about the crucial nature of the achievements.

Decisions for the Expressive Arts Group Arising from the Review

The review identified a number of issues for consideration by the Group. The main issues considered by the Group included:

- What are the broad aspects of the Expressive Arts which the group chooses to value and identify as the key components which will determine the areas for which achievement outcomes will require to be written?
- In particular, will the group wish to develop a model which is based solely on generic ideas/activities/skills or one which is based on these plus subject-specific description?
- What lessons can be learned for the creation of a progression framework and steps from the models examined in this review and from the principles underpinning them?
- What are the relevance, advantages and disadvantages to development in Wales of the models reviewed?
- To what extent and in what ways can the AoLE group draw on beneficial aspects of previous experience of a progression framework in Wales, where appropriate, in moving towards the writing of new achievement outcomes?
- As the group develops an empirically well-founded learning-related progression framework where achievement outcomes describe learning necessary to make further progression, will it wish to refer to descriptions of achievement which are age- or stage-related?
 - This could imply developing learning-related outcomes and then deciding where in the resulting framework most pupils would be at ages 5, 8, 11 and 16.
 - Or it could imply developing draft achievement outcomes for the four age points and then checking and modifying the draft to ensure that
 - all key achievements necessary for subsequent progress have been included at each stage
 - the age-related statements do indeed represent what most pupils can do at each of the four stages.
- To what extent will the group adopt a concept of achievement outcomes defined in terms of the increasing complexity and sophistication over time of experiences and responses?
- Will the group wish to develop succinct broad, generic statements, either with or without more detailed expansion?
- Will the group conclude that descriptions of achievement be graded or ungraded?
- Where should detailed guidance for teachers about progression, next steps and pedagogy be best located: within the curricular/progression framework itself or in associated material available to teachers as part of their continuing professional development?
- Having decided on these and related issues, what are the practical steps to writing achievement outcomes and support material?

Expressive Arts: Research Review

Introduction

This review focuses on a limited number of key texts dealing in different ways with the idea of progression in Expressive Arts (and creativity) and means of facilitating and assessing it. The review principally addresses research and thinking related to generic characteristics of the Expressive Arts which are common across the arts subject areas (the NFER 2004 review of arts education in 21 countries or states, the ideas of Elliot Eisner and the consideration which the European Commission has given to ways of measuring creativity, reported in Spencer *et al.* 2012). However, the review also covers publications describing or commenting on assessment and description of progression in some specific aspects of Expressive Arts, in particular the visual arts or art and design.

Context

Ensuring that pupils are provided with the structure and mechanisms to support the development of knowledge, skills and understanding is an essential and critical component of any contemporary expressive arts curriculum. Consequently, progression and its sequential development is a key need for all pupils in order to ensure that they are well equipped to move from stage to stage in their learning and experience appropriate, logically conceived levels of challenge and difficulty. In order for this to happen it is assumed that subject leaders and teachers in general have a solid grasp of standards and a full understanding of how to enable pupils to make progress. In art and design, for example, Estyn (2016:45) maintain that most teachers have a sound understanding of the quality of standards in their subject and monitor pupils' work on a regular and systematic basis to measure progress, as well as to modify and develop schemes of work. However, Estyn also notes that, whilst pupils engage with a good variety of two dimensional materials and techniques, they rarely experience working in three dimensions or with digital media: such lacunae in their experience can hinder their progress and attainment in Key Stage 4 (Estyn, 2016 p. 4).

Estyn has also found, in an analysis of the creative arts in Key Stage 2, that there was over-reliance on the expertise of some teachers and generally a lack of sequential planning to enable pupils to build on existing skills and expertise with confidence and self-assurance in the next stage of their schooling (Estyn, 2015). This suggests there is a need for significant re-planning of all stages of the curriculum to ensure that pupils are able to move from year to year with increased confidence, a secure understanding of materials and techniques, a thorough awareness of the work of a range of artists, craftspeople and designers and a clear comprehension of how to work creatively and inventively to develop original creative outcomes.

Key Research Reviewed

Whitby, K (2005) Curriculum and Progression in the Arts: An International Study. National Foundation for Education Research. Paper presented at the British Educational Research Association Annual Conference, University of Glamorgan, 14-17 September 2005.

The National Foundation for Educational Research (NFER) undertook in 2004 a survey of evidence focused on curriculum progression in compulsory education in the arts in 21 countries and states. It

explored the content, organisation and progression mechanisms in the arts by evidencing the aims and assessment procedures enacted by the countries and states involved. This comparative research study discovered considerable overlap in the aims and content of curricula, whilst there were differences in the structure of curricula and in the ways in which progress was assessed.

Whitby (2005:1), in condensing the NFER's findings, investigated the idea that education within the arts could have 'personal, social and cultural aims and outcomes as well as purely artistic ones'. She states that pupils should be encouraged to develop their understanding of other cultures, share their experiences of the arts and aim to be confident art consumers and creators in addition to developing skills and techniques in the arts.

A key aim of Whitby's research was to identify whether countries and states which participated in the NFER survey shared similar ambitions and responses in relation to four main categories of Expressive Arts outcomes, 'artistic, personal, social and cultural' (Whitby, 2005:1). Most of the survey responses received did indicate that each of these four categories of outcome was valued. Cultural characteristics were tightly linked with artistic skills, so that enthusiasm for promoting a sense of national identity was often perceived as an intrinsic and crucial component of arts education.

However, regardless of the range of artistic, personal, social and cultural aims pinpointed within the curricula explored, none of the countries or states within the sample identified progression models to gauge outcomes or pupils' attainment in these key areas. The study showed that the focus for assessment in all participating countries and states was on creative outcomes linked to a specific specialism, such as fine art, textiles, etc. In most of the countries and states surveyed it was not a mandatory requirement for pupils to pass a particular grade and they were not assessed against increasing levels of difficulty in a logical, sequential or progressive way. The main requirement for pupils was to show that their skills and knowledge had progressed. In the majority of participating countries and states this was confirmed and endorsed through the teachers' professional judgements in relation to the aims and content of specific courses. In the case of some participants, progress was described in terms of careful age-related levels or a common standard.

Whitby (2005) argues that it would be unwise to:

'... generalise the results of this study to other countries or states. It is also important to point out that the documentation represents statements of intent, rather than a description of actual classroom practice'.

The NFER 2004 survey showed that there were some notable differences in the organisation of the arts curriculum by participants, particularly in relation to integration and separation of 'subjects'. About half of the 21 countries or states surveyed organised their curricula into broad groups of subjects rather than individual subjects: in these cases, there was a broad subject area called 'the arts' (or something similar); within that arts group, these countries also tended to identify, for example, music, dance and visual arts as specific areas of study. In other countries arts subjects were described and taught separately; typically in such countries dance was an aspect of physical education and drama formed part of the first language curriculum. There were great similarities in the ways in which art and design, including specialist areas, was mapped out by all participants.

Without exception all of the 21 countries and states acknowledged the crucial contribution of the arts to the personal, social, cultural and artistic development of pupils, despite the fact that skill progression in these areas was not measured. All assessed the main components of specific arts disciplines carefully but few gauged pupils' performance against progressive indicators of achievement or required them to reach a defined grade or level. Teachers' professional judgement, whether reliable or not, was the principal means of recognising and recording learners' success.

It is worth noting that the Art and Design arrangements in the National Curriculum for Wales (Welsh Assembly Government, 2008) makes use of a similar approach to teacher assessment of pupils' achievement levels in terms of 'Understanding', 'Investigating' and 'Making' in Art & Design at Key Stages 2 and 3. The new GCSE arrangements (Welsh Joint Education Committee, 2016) also endorse a similar approach in relation to the following assessment objectives:

- AO1 Critical understanding
- AO2 Creative making
- AO3 Reflective recording
- AO4 Personal presentation.

Performance progression descriptor indicators are included in WJEC specifications through mark schemes at both GCSE (Welsh Joint Education Committee, 2016) and AS/A Level (Welsh Joint Education Committee, 2015) which could serve as exemplars for Art and Design within the AoLE of the Expressive Arts.

An emphasis on both generic, cross-subject skills and activities and subject-specific knowledge and skills is in harmony with key findings from a research review (Spencer 2010) commissioned jointly by Scottish Government and HMIE (Scotland) to provide guidance for teachers and other stakeholders in implementing or evaluating implementation of the Curriculum for Excellence advice about interdisciplinary learning. A particularly significant finding of the review was that the most effective kinds of interdisciplinary learning do not involve abandonment of disciplines but effective bringing together of knowledge and skills from different well defined areas of learning in very carefully planned work that explicitly links the particular aspects of different curricular areas to broader generic outcomes.

Eisner, E. W. (2005). Reimagining Schools. The selected works of Elliot W. Eisner. Oxford: Routledge.

The work of Elliot Eisner on the role of the arts in education is a significant source of important ideas about the nature of achievement and progression in the arts – and about the ways in which typical current trends in educational policy and practice can impoverish and constrain the quality of young people's experience of and achievements in expressive arts. The following points derive from Eisner (2005), the publication that most effectively draws together Eisner's thinking about the contribution of the arts to education.

Eisner strongly emphasises the importance for education in the arts – and for education more broadly – of the idea of individual creativity. Eisner (2015, pp. 7-16) presents the arguments for (and a practical project to implement) ways of measuring certain elements of creativity:

- Boundary Breaking
- Boundary Pushing

- Inventing
- Aesthetic Organization.

He reports that, in the research study undertaken, Boundary Breaking occurred much less frequently than the other types of activity. In a discussion of the value of specifically defined educational objectives (pp. 17-23) he suggests that such objectives 'can hamper as well as help the ends of instruction'. The use of objectives as criteria to measure the learning outcomes, he argues, may be quite inappropriate in relation to expressive arts:

'It is only in a metaphoric sense that one can measure the extent to which a student has been able to produce an aesthetic object or an expressive narrative. Here standards are unapplicable; here judgment is required'. (p. 20).

Dominic Wyse (personal communication) extends this, arguing that creativity involves a process of collaborative judgement. There is therefore a need for curriculum theory that provides ways of describing success in modes of achievement that cannot be measured: 'Curriculum theory needs to allow for a variety of processes to be employed in the construction of curriculums' (p. 22). Such a change would enable the development of 'expressive' learning objectives, which would not simply focus on the acquisition of 'the known' (as do typical instructional objectives at present in many curricula) but encourage learners to elaborate and modify what they come to know and even at times to produce something entirely new (p. 35).

Eisner's emphasis on the importance of teacher judgement in recognising and describing quality in arts achievement derives from his championing of the concept of 'connoisseurship'. He describes this as a significant, valuable alternative to the scientific approaches to assessment represented by testing and data gathering. It is, he argues, an appreciative art that develops awareness of and describes characteristics and qualities in learners' achievements, rather than evaluating them in terms of whether correct or incorrect responses have been made. He regrets (p. 55) that in educational assessment and evaluation 'An ounce of data, it seems, has been worth a pound of insight'.

Another aspect of Eisner's thinking that harmonises effectively with his ideas about describing the qualities of achievements is the strong case he makes (in the chapter 'The celebration of thinking' (pp. 105-111)) for the integration in an individual learner's educational development of experience and achievement in the arts and thinking and cognition more generally. Artistic activity and cognition are interdependent: 'Traditionally we have separated mind from body... There is no competent work of the hand that does not depend on the competent use of mind' (p. 107). Elsewhere (pp. 76-85) he argues that thinking and expression in other curricular areas are weakened if learners lack awareness of and skill in visual and auditory forms of representation: 'The arts are not mere diversions from the important business of education; they are essential resources' (pp. 83-84). He sees the arts as contributing strongly to general development:

'What we do need to teach them (children) is how to engage in higher-order thinking, how to pose telling questions, how to solve complex problems that have more than one answer ... The challenge in teaching is to provide the conditions that will foster the growth of those personal characteristics that are socially important, and at the same time, personally satisfying to the student. The aim of education is not to train an army that marches to the

same drummer, at the same pace, toward the same destination... What this means is that children develop at their own distinctive pace.' (pp. 169-170).

Eisner sums up this line of thought as follows (p. 213):

'...I am talking about a culture of schooling in which more importance is placed on exploration than on discovery, more value is assigned to surprise than to control, more attention is devoted to what is distinctive than to what is standard, more interest is related to what is metaphorical than to what is literal [a culture that] assigns greater priority to valuing than to measuring and regards the quality of the journey as more educationally significant than the speed at which the destination is reached.'

One final point made by Eisner is particularly pertinent to the CAMAU project. He argues in a chapter on 'Educational reform and the ecology of schooling' (pp. 136-149) that effective reform engages teachers' commitment by involving them as action researchers or as co-researchers with university staff in the process of designing the changes. The teacher-researchers involved in CAMAU, and those who later, throughout Wales, will have the chance to evaluate, comment on and modify the draft achievement outcomes, as they design the curriculum and the assessment foci for Expressive Arts, may well wish to take account of Eisner's advocacy of rich, qualitative, descriptive approaches to defining progression benchmarks, rather than narrow specification of 'instructional objectives'.

Spencer, E., Lucas, W. & Claxton, G. (2012a). Progression in Creativity – developing new forms of assessment: a literature review. Creativity, Culture and Education. [retrieved from http://www.creativitycultureeducation.org/wp-content/uploads/Progression-in-Creativity-Final-Report-April-2012.pdf]

Spencer *et al.*, (2012a), a literature review for the organisation Creativity, Culture and Education, highlights a range of factors related to ways of describing or measuring progression in creativity. Many of these have featured in relatively recent European thinking, in particular thinking stimulated by the European Commission's identification of 2009 as the 'year of creativity' and reflected in the European Commission publication *Measuring Creativity* (Villalba, 2009). The European Commission funded a further study of creativity and the curriculum in the then EU 27, the results of which were published in Wyse & Ferrari (2015) which found that, while 'creativity' was a frequently used term in curricular statements, its incidence varied widely. It was evident that 'creativity' was more often recognised in the arts than in other areas of the curriculum:

'it can also be argued that the role of creativity in artistic composition and enactment is qualitatively different, for example, from the creativity of problem framing and solving that is an important part of maths and sciences, and that this qualitative difference may be a sufficient rationale for the higher inclusion of creativity in arts subjects.' (p. 42)

This study focused on curricular statements and these seem to have made limited reference to assessment or progression. Spencer *et al.* argue that it is important to give status to Expressive Arts through assessment and that there is a need to persuade users of assessment information to value assessment other than tests and examinations and to recognise the importance of assessment to show personal improvement, rather than to compare learners (and thus promote competitiveness). They report that, though there is much research associated with the nature of creativity, there is little addressing the question of how best to conceptualise *progression* in it. Some work is referred

to that relates progression in music (and in written composition) as related to a shift from supported and collaborative work to independent creation of new products (Craft *et al.* 2007). Wyse (2017) reports that a three year longitudinal study of creativity and writing provided some evidence of some broad patterns of creativity development in children age 8 to age 10.

Spencer *et al.*, (2012a) argue that 'authentic' assessment, i.e. in context and qualitative in nature, is the most appropriate approach for creative activities, and, indeed, that this kind of approach is actually more important across the curriculum than testing because it is a better preparation for real life challenges beyond school. They note that the Assessment and Testing of 21st Century Skills group at the University of Melbourne locate creativity in their category 'Ways of Thinking' (the other categories are 'Ways of Working', 'Tools for Working' and 'Living in the World').

Spencer *et al.* also review a range of research and thinking associated with the report for the European Commission (Villalba, 2009) on how to *measure* creativity: i.e. how to develop a scientifically justifiable and commonly agreed single tool for measuring what is clearly a set of complex phenomena. They indicate that to develop such a tool would involve a long period of negotiation and statistical analysis of trials to integrate the many different aspects of creativity into an agreed framework of statements describing progress in it. In the light of the kinds of argument advanced by Eisner, the question arises whether there is a need for a single measure, as opposed to means of making judgements about creative achievements and describing them.

Beghetto, R. A., Kaufman, J. C. and Baer, J. 2015. Teaching for Creativity in the Common Core Classroom. Teachers' College, Columbia University.

Wilson, A. (Ed) 2005. Creativity in Primary Education. Exeter: Learning Matters.

These authors identify three key factors relevant to effective assessment of creativity.

- The first need is to remember that curriculum, pedagogy and assessment are inextricably
 interrelated: good assessment depends on clear identification in the curriculum of the
 characteristics of creativity that we want pupils to develop and show. What is important
 should be assessed. Otherwise it loses status and receives less learning/teaching time and
 effort.
- 2. Beghetto *et al.* (2015) offer many useful advice points for ensuring that creativity is indeed given importance and status in the curriculum (in all areas). These ideas include:
 - Promoting and actively teaching divergent thinking. This could include, eg, generation of ideas through brainstorming activities in relation to particular purposes (including, of course, various types of expressive arts work)
 - Making sure that discussion activities encourage/require participants to take differing points of view, express varying/conflicting opinions.
 - Building expectations for creativity/imaginative thinking into tasks.
 - Praise efforts to think imaginatively/divergently.
 - Encourage *intrinsic* motivation, rather than, eg, 'success = a high grade'.

Wilson (2005) contains much helpful guidance on promoting creativity across various aspects of the curriculum, including expressive arts areas.

3. Explain and actively promote the idea that *all* individual thinking is creative; all personal learning creates individual insights, personal grasp of what has been thought about.

All writing is, in a real sense, creative in this way. Equally, so is any personally or collaboratively invented 'outcome' of any expressive arts activity. The 2005 OECD report on formative assessment in secondary education includes a particularly interesting account of a Scottish mathematics teacher who achieved high examination success with his pupils by requiring them constantly to explain to one another how they, individually, would address mathematical problems. His pupils developed a very strong sense that alternative, different ways of thinking were both greatly interesting and very successful at achieving good examination results.

Spencer, E., Lucas, B. and Claxton, G. (2012b). Progression in Creativity: developing new forms of assessment. Centre for Real World Learning at the University of Winchester.

One interesting approach to ensuring that assessment criteria include expectations relating to creativity is explored (and tried out and evaluated) in Spencer *et al.* (2012b). This team worked from the premise that there are *learnable dispositions* that constitute crucial aspects of creativity and that the extent to which pupils demonstrate them, whether in general across all their work or in particular projects, can be described. They present these dispositions as '5 Habits' – Being

- Imaginative
- Inquisitive
- Collaborative
- Disciplined
- Persistent

Each can be further divided into 'sub-habits'.

The emphasis is principally on descriptive assessment – identifying and stating the extent to which the 5 habits are apparent in terms of strength, breadth and depth – and doing so normally for formative purposes. The project did, however, also look at the potential use of some 'measurement elements', considering, for example, the possibility of using a model resembling 'level' or 'grades' within each habit – eg, awakening, accelerating, advanced, adept. In field trials, however, teachers were not happy about this approach.

Some Concluding Points

The questions underpinning this selective review of research related to describing and assessing achievement and progression in expressive arts were the following:

- According to the literature, are the changes that children make qualitative jumps (with big steps at key moments) or more gradual sophistication (children seen to gradually add more of the same skills over time)?
- Is progression linear or could children move backwards and forwards?
- Do the researchers see children's progression as something that can be impacted on by the environment (including teaching) and open to change, or is it fixed?

• Is there one path that children seem to take in this area, or are there multiple paths? Do the researchers acknowledge that children may have different paths based on the context in which they grow up/learn?

It seems clear that some answers to these questions begin to emerge.

- The research suggests that progression in expressive arts and in creativity more generally is likely to grow out of gradual use and re-use of known skills, but also could on occasion present as a big qualitative jump.
- It is not a linear process and there is not one common pathway. Learners may easily move backwards and forwards as they experience expressive arts activities and different learners are likely to progress in markedly different ways.
- It is clear that the environment in which they are learning, including the quality of teaching is an important factor in facilitating progression.
- Above all there is a strong message from the research that qualitative, descriptive approaches to assessing achievements and progression are the most appropriate.

In addressing the decision points which have been identified at the end of the Expressive Arts Review of Frameworks, the Expressive Arts AoLE needs to be mindful of these indications from the research.

Section 4: Conclusions and Framework for Decision Making

Introduction

This section of the report is in four parts.

- Part 1 draws together major themes emerging from evidence analysed in Sections 1 and 2 of the report.
- Part 2 relates key messages to Successful Futures.
- Part 3 states fundamental principles which will underpin decisions within each AoLE Group.
- Part 4 provides evidence derived from the review relevant to key questions each AoLE will consider as they take decisions about the development of progression frameworks.

This **research** report is intended to support thinking across and within the AoLE groups as ideas of progression are developed and shared across Wales.

Part 1: Major themes

Progression matters for learning

The crucial function of the curriculum is to identify for each AoLE what matters in order to achieve the overall purposes of the Welsh curriculum, viz., to enable each young person to be

- an ambitious, capable learner, ready to learn throughout life;
- an enterprising, creative contributor, ready to play a full part in life and work;
- an ethical, informed citizen of Wales and the world;
- a healthy, confident individual, ready to lead a fulfilling life as a valued member of society.

Within the curriculum for each AoLE description of progression is important:

- for teachers to have an overview of the curriculum
- for learners to see a bigger picture and relate what they do on a day to day basis to a broader understanding of what matters
- as the basis of decisions about next steps in learning and pedagogy.

The research review suggests that, to achieve these three purposes effectively, descriptions of progression should be structured in terms of learning development such as beginning learner to expert in a domain, rather than in terms of predetermined statements of standards related to age or stage of education.

Descriptions of progression serve two main purposes

The research and national framework reviews suggest that descriptions of progression can usefully be of two broad kinds, interrelated but with the following separate purposes:

- Broad statements providing an overview of the journey from beginning learner to expert in a domain.
 - These descriptions summarise succinctly what matters over time within the domain.
 - They can guide teachers' large-scale planning over an extended period of students' education.

 They can show students and teachers how current work relates to longer term aims and so avoid students seeing their learning as fragmented and with little sense of clear purpose.

• Detailed description of progression in learning within topics in a given domain

- Specifying the knowledge, skills and capacities which students acquire and practise in the process of working towards the learning described in the broad statements.
- These detailed descriptions should enable the teacher and the learners to identify in assessment for learning dialogue what has been achieved and the next immediate steps to ensure further successful learning.

Evidence emerging from the research and frameworks reviews suggests that different countries have taken different approaches to the presentation of national curricula and assessment arrangements. In Wales, it will be important to consider how best to address both the above purposes in a way that would promote clarity, eg, allowing teachers and learners to have a sense of the overall learning journey using broad descriptors whilst more detailed information on learning related to the overall descriptors is contextualised within professional learning. Such an approach should create clear links between the national framework and local practice, providing an effective basis for

- developing teachers' discussion and deep understanding of learning
- exploring means of responding to the voices of learners and promoting their ownership of learning
- exploring the potential of assessment for learning and pedagogical action to ensure success
- demonstrating ways in which day to day work builds towards achievement of what matters in the AoLE, as defined in succinct broad curriculum descriptors.

Successful curriculum and assessment development is only possible if contextualised in professional learning.

Successful development and enactment of learning progression frameworks developed for Wales will depend on an inextricable relationship between development of curriculum and assessment and professional learning.

Part 2: Relating AoLE Review Findings to Successful Futures

The ideas presented in *Successful Futures* form the principles from which curriculum, pedagogy, models of progression and assessment in Wales are to be developed and offer a touchstone against which emerging proposals can continue to be evaluated. These principles serve as touchstones for the CAMAU project processes.

Progression is characterised in *Successful Futures* in terms of increasing achievement in a range of aspects of learning such as: breadth, depth, complexity, level of abstraction, mastery of techniques, sophistication, accomplishment and skill, application, challenge and independence and confidence: this increasing achievement will be evident for both disciplinary knowledge and wider competencies. *Successful Futures* recognises the diverse needs of learners and is clear that the curriculum purposes can be met in a wide variety of ways and allow for wide variations in the experiences of individual children and young people. Each child's learning continuum functions as a journey

through the curriculum; while the road map will be common to all learners, this journey should allow for variety of pace, diversion, repetition, and reflection, as appropriate for each individual to make progress in learning. These aspects of progression are all identified in the six reviews in section 2 as being visible to some extent and at some points in both the findings of research and national policy statements, but the review found no existing national system where all these issues had been fully addressed.

Similarly, learning is defined in *Successful Futures* through the concept of progression, represented as a coherent continuum without separation or interruption. The continuity that the new curriculum places at the centre of learning describes a holistic approach to the development of the individual, including experiential learning that is valuable in and of itself. The characterisation of progression embedded within Successful Futures as the vision for education in Wales is not fully evident in any one country's policy or one theoretical model.

The Curriculum for Wales, therefore, is breaking new ground and will need to bring together multiple forms of evidence, for example, research where it exists as documented in the research reviews, teacher and pupil understandings of progression, samples of pupil work that show progression, and insights from other national frameworks, in order to create bespoke progression frameworks for each AoLE tailored to the needs of young people in Wales.

By revisiting the elements of the *Successful Futures* vision for progression outlined in section 1 of this report we can summarise relevant findings of the six reports in section 2 (see *Table 15*). Each of the 12 points summarised in this table may help inform decision-making within each AoLE group as well as across the system.

Table 15

	Element of the vision for progression	Summary comment from section 2 reviews
	embedded within Successful Futures	
1.	Phases and key stages should be removed in	Evidence from research considered in some
	order that progression can be continuous,	reviews supports this principle: if
	increasing the potential for higher	progression steps represent significant
	attainment by minimising transitions.	aspects of learning, then reference to
		specific ages/stages/phases is at least
		difficult, and maybe inappropriate. There
		exist some frameworks which do not
		prescribe attainment by age or grade.

	Element of the vision for progression embedded within <i>Successful Futures</i>	Summary comment from section 2 reviews
2.	Progression in each Area of Learning and Experience should be based on a well-grounded, nationally described continuum of learning that flows from when a child enters education through to the end of statutory schooling at 16 and beyond.	Reviews report that some progression frameworks run through the whole of a child's learning while others are specific to particular stages (e.g. primary, early secondary). The latter may be marked by discontinuity. Some research reviewed considered the
		whole continuum; other research reviewed investigated progression in the shorter term. The latter may inform the former.
3.	Learning should be an expedition, with stops, detours and spurts rather than a straight line. Progression is a 'road map' for each and every child/young person's progress in learning though some children and young people will progress further and/or faster than others.	Although some countries do outline tightly prescribed linear progression, there is considerable evidence from research that non-linear progression (sometimes 'spiral') is either to be expected or is necessary. This is recognised in some policies. The question of moving forwards and backwards in learning is raised in some reviews, as is the notion that there may be multiple paths of progression that different children may take.
4.	Progression Steps will be described at five points in the learning continuum, relating broadly to expectations at ages 5, 8, 11, 14 and 16 (staging points for reference rather than universal expectations – but expectations should be high for all learners).	Research considered in some reviews questions the value of progression steps which represent significant aspects of learning referring to specific ages/stages/phases as at least difficult, and perhaps inappropriate.
5.	Progression Steps are made up of a number of achievement outcomes linked to what matters in the curriculum and linked to the four purposes ('I can' statements). Literacy, numeracy, digital competence and wider skills should be embedded as well as elements of the Cwricwlwm Cymreig.	The reviews provide evidence on the nature of 'achievement outcomes'. Some progression frameworks contain many statements of achievement, an approach which presents both practical and educational difficulties: difficult to manage and detailed prescription is unlikely to be consistent with flexibility in individuals' learning. Very broadly stated outcomes may be open to a breadth of interpretation and be perceived by teachers as unsupportive. First person learner statements are uncommon.

	Element of the vision for progression embedded within <i>Successful Futures</i>	Summary comment from section 2 reviews
6.	Achievement Outcomes should not be a checklist of knowledge or skills and should incorporate effective pedagogy.	The reviews provide accounts of research evidence which points up the potential disadvantages of this 'checklist' approach. While some countries do adopt this 'checklist' approach there exist in at least some curricular areas in some countries models of progression which avoid this approach.
7.	Achievement outcomes should inform next steps and be framed as broad expectations achievable over a period of time (approximately 3 years).	While a number of countries monitored progression across periods of time longer than a year, there was less clarity about how achievement outcomes might explicitly inform next stages in learning.
8.	Achievement Outcomes should use 'I can', 'I have' (and 'I am ready to') statements to describe progression (not over specified or overly vague – this may vary across AoLEs).	The reviews found that use of first person statements is rare in the countries examined. Typically, third person statements referred to the past 'The learner will have developed' or present 'The learner is able to'. There seem few statements that could be equated with 'I am ready to'
9.	Assessment (relevant and proportionate) should be focused on learning intentions and progression in relation to the four curriculum purposes and based upon the intentions set out in the Achievement Outcomes at each Progression Step within each Area of Learning and Experience.	There was some evidence that tensions could arise from seeking to incorporate within achievement outcomes both learning directly related to the discipline and evidence related to broader statements of learning such as the four purposes.
10.	In each AoLE the Achievement Outcomes at each Progression Step will need to encapsulate the most important aspects of learning, take account of the ways in which children progress in different kinds of learning and recognise what they need to be able to know and do to move securely to the next stage.	This issue is noted in some of the reviews: some progression frameworks reviewed would seem to be inconsistent with aspects of this aim, those which have many statements of achievement for example. In many countries statements of standards (or similar) focused on attainment to date and made little reference to next stages of learning.

	Element of the vision for progression embedded within <i>Successful Futures</i>	Summary comment from section 2 reviews
11.	Professional judgement is central to assessment (formative assessment with relevant summative information collected and used formatively within classrooms and schools).	The research and policy reviews undertaken here found less evidence for the use of assessment to inform school evaluation than for its use to inform learning.
12.	Schools should use teacher assessment of progression systematically, together with other sources of evidence, to inform their self-evaluation for school improvement purposes.	The reviews found less evidence for the use of assessment to inform school evaluation than the use of assessment to inform learning. This applies both to research and policy reviews.

Part 3: Principles

Building from the evidence emerging from the review of national frameworks and the research literature, a number of principles emerged that might be used to take forward the progression aspirations of Successful Futures.

Principle 1

The four purposes should inform and be evident in learning progression frameworks and achievement outcomes.

The six reviews in Section Two recognise that each AoLE has specific characteristics, reflected in both research and existing national frameworks. It will be important that learning progression frameworks in Wales recognise these characteristics. In some of the frameworks reviewed, the 'main aims' of the curriculum are articulated at the start and then elaborated in detail in a description of the curriculum or in a description of learners' expected achievement (e.g. learning or achievement outcomes, standards, descriptions of progression) or in descriptions of both. A learning progression framework, the progression steps within it and associated achievement outcomes must reflect or encapsulate what the designers of the curriculum most value in the process of educating young people.

Principle 2

Progression frameworks must relate to what matters

Each progression framework should focus on the knowledge, skills and attributes which have been identified within each AoLE as the heart of successful learning in each domain and must encompass the four purposes of the curriculum.

Principle 3

Learning progression frameworks will place the development of learning at their heart rather than focusing on content or activities.

In the past insufficient attention has been paid to progression in learning with negative consequences for learners and teachers who perceive learning as fragmented and with little sense of

clear purpose. This leads to problems with practice in Assessment for Learning where understandings of where a learner is and where a learner might next progress to are commonly not linked into a bigger picture of what matters. Reviews emphasised the interdependency among pedagogic approaches, content and assessment in how progression is described.

Achievement outcomes at each progression step should encapsulate the most important aspects of learning, take account of the ways in which children progress in different kinds of learning and recognise what they need to be able to know and do to move securely to the next phase of learning in that framework.

Principle 4

Progression frameworks should serve two main purposes: broad statements and detailed descriptions

Each AoLE will develop broad statements to provide an overview of the learning journey over time and more detailed statements related to individual topics, themes or other aspects of learning. A little like Russian nesting dolls, the more detailed progression statements should be linked clearly to the broad progression statements and the broad statements should be derived from what AoLEs have identified as what matters.

Principle 5

National progression frameworks should enable and support schools to develop curriculum and assessment practices to suit local circumstances

It is important that broad progression statements are written in a way that allow schools to have the flexibility to ensure that they can relate the curriculum to local circumstances as they maintain high levels of challenge for all learners.

Principle 6

Successful curriculum and progression development requires professional learning

It is important that professional learning builds on available evidence: this involves bringing together research understandings with practice insights in the emerging policy context of Successful Futures. Professional learning will stimulate and support teachers to recognise, build on and develop their pedagogical insights and practice. There are opportunities for professional learning to be built around the development of the national programme rather than simply learning about the national programme. For example, the evidence base to build more detailed progression statements does not exist in all areas. One function of the professional learning programme should involve groups of teachers working together to help build a better evidence base whilst learning about the new curriculum and assessment arrangements.

Principle 7

Where possible progression frameworks should be informed by research evidence

Consistent with the policy aspiration of Successful Futures achievement outcomes should describe significant progression steps within a learning progression framework. Achievement outcomes should not be a checklist of knowledge or skills and should incorporate effective pedagogy; they should inform next steps and be framed as broad expectations achievable over a period of time (approximately 3 years).

Part 4: Evidence derived from the review which may help to inform decisions to be taken within each AoLE Group

Here, questions arising from the review related to the principles identified above were identified. These were offered as a stimulus for thinking within and across AoLEs as they made proposals to the Coherence Group on how progression frameworks might best be developed.

1. What are key features of research-informed progression?

Each of the AoLE reports refers to and supports Heritage's (2008) argument noted in section 1 that

'By its very nature, learning involves progression. To assist in its emergence, teachers need to understand the pathways along which students are expected to progress. These pathways or progressions ground both instruction and assessment. Yet, despite a plethora of standards and curricula, many teachers are unclear about how learning progresses in specific domains. This is an undesirable situation for teaching and learning, and one that particularly affects teachers' ability to engage in formative assessment.' (p.2)

Common conceptual features of progression frameworks were summarised in Section 1. Heritage (2008) argues that all models of progression conceptualise progression as a continuum of increasing sophistication of understanding and skills as young people move from 'novice to expert'. This concept is explicit in some of the national frameworks and may underpin others; however, there is a range of understandings of the nature of development from novice to expert. Some learning progression frameworks adopt a developmental view, inviting teachers to conceptualise learning as a process of increasing sophistication rather than as new bodies of content to be covered within specific grade levels; others detail content or very specific skills to be developed at each stage. It seems that approaches may vary from AoLE to AoLE: whether this is the result of different epistemological models or of tradition is unclear. No definition of learning progression contains references to grade or age level expectations, in contrast to many standards and curriculum models as learning is conceived as a sequence or continuum of increasing expertise.

Implicit in progression is the notion of continuity and coherence. Learning is not seen as a series of discrete events, but rather as a trajectory of development that connects knowledge, concepts and skills within a domain. Issues related to interconnection of knowledge, concepts and skills across a domain – or domains – are considered in the individual AoLE reviews; these demonstrate differences between AoLEs, some associated with the range and fit of the domains within each AoLE, some associated with differing balances among knowledge, skills and dispositions. Learning progressions are accommodating. They recognise that, commonly, learners do not move forward at the same rate or with the same degree of depth and progression. This issue was consistently acknowledged in each of the AoLE reviews. A number of existing frameworks do not appear to allow learners to move forward at different rates.

Learning progressions enable teachers to focus on important learning goals, paying attention to what a learner would learn rather than what a learner would do (the learning activity). The learning goal is identified first and teaching, pedagogy and assessment are directed towards that goal. 'Consequently, the all too common practice of learning being activity driven rather than driven by the learning goal is avoided.' (Heritage 2008 p.5). Clear connections between what comes before and after a point in the progression offer teachers a better opportunity to use assessment to

calibrate their teaching, to address misunderstandings or to develop skills, and to determine what would be important next steps to move the student forward from that point.

2. Who might key audience(s) be for Learning Progressions?

Learning progression frameworks provide teachers with an overview of the curriculum and provide learners with a bigger picture which allows them to relate what they do on a day-to-day basis to a broader understanding of what matters. The AoLE reviews set out the intentions for the articulation of progression and achievement that can be summarised as follows:

Achievement Outcomes and any associated description of learning progression should enable teachers to know what kinds of knowledge, skills and aptitudes they should aim to develop with learners at all stages of their learning journey. Achievement Outcomes should enable both teachers and learners to see the next steps to be taken.

The purpose, scope and structure of the progression frameworks within and across AoLEs will need to be clear to those who will use them prior to developing their content.

As noted in Section 1, Black *et al* (2011) make a strong case for the centrality of teacher assessment. This is well supported in the reviewed literature and international models where the potential for rich evidence of progression and better standards of validity and reliability than national or state tests are noted. However, each AoLE review highlights that, as Black *et al* (20011:106) suggest, attaining a position where teacher assessment fulfils this promise may require significant professional development. Lambert (2011) also raises the issue that the actual understanding (and perhaps even the actual relevance) of level descriptors is often questionable. Lambert cites the difficulties that teachers have in identifying work to exemplify certain levels, implying an uncertainty about what constitutes a level (and therefore arguably progression).

Heritage (2008) reminds us that many learning progressions are written primarily for teachers and tensions can arise if a single learning progression attempts to serve too many purposes. For example, problems can arise if it is assumed that the same degree of granularity (level of detail) will serve both long term planning and assessment to support immediate next steps. The degree of granularity in a learning progression designed to ensure that teachers have an overview of progress from novice to expert is very different from the degree of granularity necessary to enable teachers to support learning formatively: the latter would require a far more detailed analysis of progress in learning.

Learning progressions can also be written in ways which provide a framework for learners to understand their own learning journeys. Such models were not explicitly noted in the AoLE review reports. Heritage (2008) argues for the importance of learners being aware of longer term goals and the relationship between those and their day to day progress. Increased involvement in learning occurs when teachers share with the students what their longer-term goals are and enable them to participate in evaluating the degree to which they have met the goals.

3. How detailed should the descriptions be? (described in research literature as 'granularity')

There are different understandings about what is meant by progression in learning. It is important to make a clear distinction between learning progression as providing an overview of the long journey from emerging to expert in a domain and as detailed insight into the expectations of immediate progression in learning within a topic in a given domain. Both are necessary and inter-related but

different in their purpose, scope and level of detail. Both should help teachers and learners to see, and indeed to develop habitual awareness of, the appropriate next steps, as dialogue and assessment for learning take place during the learning process. Heritage (2008:2) suggests that greater attention should be paid to the different levels of specificity used to articulate the curriculum. Some curricula specify detailed objectives to be mastered at each grade in sequence. When the curriculum is described in this level of detail, 'grain size', it may be difficult to see how these many discrete objectives connect to bigger, organising concepts; learning can become little more than a checklist of things to be learned. Curricula organised around core concepts or 'big ideas' and sub-concepts offer better opportunities for a stronger relationship between formative assessment and learning goals. However, Heritage (ibid) argues that care also needs to be taken with this approach for too often 'big ideas' are not brought together as a coherent vision for the progressive acquisition of concepts and skills. Without a coherent vision the potential for teachers to have a broad overview of learning in a specific domain is restricted.

The AoLE reviews include some detail about specific models for progression which teachers may employ; these may be domain-specific or applicable more generally.

All of this implies the need for consideration not only of the determination of the central aspects of achievement in the AoLE but also of the appropriate (that is, helpful and manageable) levels of specification of description of achievement. If the central aspects are described in 'lean' statements, then it will be necessary to consider the most appropriate format: e.g. succinct broad statements, possibly with a small amount of expansion; or narrative descriptions. It will also be necessary consider where more detailed guidance and support for teachers about progression, next steps and pedagogy should be located and how this could be used? If descriptions of achievement are detailed, it will be necessary to consider how these can be used effectively to support assessment for learning and progression, given the issues about manageability which have been raised.

There is evidence from several countries reviewed that exemplification of standards through learner work significantly reduces the level of abstraction. Descriptive statements alone do not always make clear what performance/behaviours at a given level would look like in a classroom and this is a potentially powerful way of addressing this issue. The use of such material to inform professional learning requires consideration. Several of the reviews raise the issue of the most appropriate location of detailed guidance for teachers about progression, next steps and pedagogy: within the curricular/progression framework itself or in associated material available to teachers as part of their continuing professional development? Related to this is the question of how such material can be most effectively used to support professional learning.

4. Steps in a learning journey?

The issue of relating learning progression frameworks to ages, stages or even phases has already been referred to. Research argues that this should not be the case on both fundamental and instrumental grounds. As the groups develop an empirically well-founded learning progression framework where achievement outcomes describe learning necessary to make further progression, how will they address the issue of descriptions of achievement which are related to phases?

The reviews of international frameworks demonstrate how some frameworks seek to differentiate the performance of learners' who are at the same chronological or grade stage by using a grading system or mark. This may take the form of such phrases as *Not Yet Within Expectations*, *Meets*

Expectations (minimally), Fully Meets Expectations and Exceeds Expectations or a mark such as: 1 = limited effectiveness, 2 = some effectiveness, 3 = considerable effectiveness and 4 = a high degree of effectiveness or thorough effectiveness. This matter may be related to the level of specification or the number of stages of development employed in a framework. A possible justification for the kinds of grading or marks systems shown may be that very broadly defined frameworks do not give teachers and learners enough detail in deciding on next steps in learning. An obvious potential disadvantage is the danger of labelling learners and the associated motivational issues. Such grading approaches are usually linked to statements of standards which themselves may be linked to age and stage; there is powerful evidence that such approaches divert teacher and learner attention away from learning to simplistic models of attainment.

The reviews demonstrate that existing frameworks can provide ungraded descriptions of complex achievement and interacting skills. These may be supported by desirable guidance and support for pedagogy and assessment for learning through additional associated material and by encouraging continuing professional development activities.

5. How might the progression frameworks relate to previous frameworks?

During the process of review it was noted that the former National Curriculum in Wales and the Literacy and Numeracy Frameworks used progression frameworks which took some account of pupils' varying pace of progress. This raises the prospect that there may be some value in looking at earlier local models of curriculum and learning progression in the writing of new achievement outcomes. However, it was also noted that practice must align with the new intentions for the curriculum in Wales: in particular, the requirements to address the four purposes; the fundamental importance to learning of ensuring that curriculum, pedagogy and assessment are coherent and aligned; and the need to move from backward focused statements of standards to forward focused statements of achievement. This has implications for the development of learning progression frameworks which support effective learning.

While considering descriptions of performance it is worth noting the Review of the National Curriculum in England (2010-2014) was highly critical of the previous levels-based system. In this context, best-fit judgement failed to recognise major gaps in children's knowledge and contributed to superficial coverage of the curriculum because the levels-based system encouraged learners to move on to new content without secure grasp of key areas.

6. Relationship with literacy, numeracy and digital competence frameworks?

The Languages, Literacy and Communication review notes that *Successful Futures* explicitly states that the achievement outcomes and progression framework for Languages, Literacy and Communication should take appropriate account of the national Literacy Framework. There are therefore important decisions to take about how the development of the Languages, Literacy and Communication learning progression framework may relate to the Literacy Framework. Parallel issues will apply in the articulation of progression for numeracy with Mathematics and Numeracy and for digital competency and the computing aspect of Science and Technology. All AoLE groups will wish to consider how achievement in these three frameworks and in other cross-curricular aspects may be reflected in their learning progression frameworks.

7. What view do we have of the developing child and young person?

The place of child development within the domain and associated expectation for progression in learning is raised in several reviews. Pellegrino (2017) suggests that although learning progressions are not developmentally inevitable, they may be developmentally constrained. This issue was noted in some AoLE reviews and was of particular importance for the H&WB AoLE review. It may be that this issue is more broadly applicable, especially in the earliest years of learning. When considering progression (e.g. in H&WB), links have been made to research in child development. While child development differs from progression in learning within a domain, developmental stages are closely tied to achievement within H&WB: a young child typically cannot run, regulate emotions, navigate social situations or demonstrate self-control as well as an older child. Teachers may draw on knowledge of child development to understand what typical development looks like within the physical, mental, and social domains, identify when pupils seem to be developing atypically and provide support to maintain the progress of all learners. Progress in domain-related learning relates to developing metacognition and self-efficacy; this observation underlines that there is a complex relationship between children's progress in the H&WB and their progression in other AoLEs.

While it is argued that research undertaken on cognition and learning has led to the emergence of highly developed descriptions of progression in particular curricular areas, specifically science, reading and mathematics (Pellegrino 2017), the evidence from several of the AoLE reviews is that this is often at a micro or detailed level (e.g. one topic) rather than over a longer time scale. Learning progressions can be developed through tracking the actual development of thinking/learning during a sequence of learning or topic. The premise of these 'learning progressions' is that they allow the teacher to understand the ways in which learners progress in their thinking or skill development in order to track progress. This approach would seem to have the potential to produce evidence based learning progressions which would act as a usable version of level descriptors and would support a genuinely formative process of checking current attainment against a known progression and the setting of targets for improvement. However, it should be noted that such progressions are extremely complex (taking 2-3 years to produce) and that a large number of these may be needed in order to cover 'big ideas' within any curriculum area.

Children and young people are beings not becomings. The four purposes describe what all children and young people should become and achieve through statutory education as well as how they are perceived and positioned to experience the curriculum. *Successful Futures* (p.22) argues that:

'statements of curriculum purpose need to be formulated carefully so that they have integrity, are clear and direct and become central to subsequent engagement and development; in that way they can **shape the curriculum and suffuse practice** [authors' emphasis]. Common understanding of why we are doing what we are doing is a powerful starting point from which to determine what it is we need to do and how we are going to do it'.

Recommendation 2 (p.23) states:

'The school curriculum should be designed to help all children and young people to develop in relation to clear and agreed purposes. The purposes should be constructed so that they can directly influence decisions about curriculum, pedagogy and assessment'.

The purposes therefore tell us about how children should experience their curriculum day to day. Each child's learning continuum functions as a journey through the curriculum; while the road map will be common to all learners, this journey should allow for variety of pace, diversion, repetition, and reflection, as appropriate for each individual to make progress in learning. There is therefore a greater responsibility for schools and teachers to ensure that learning is child-centred, since the details and pace of each journey are set according to the requirements of the learner, always in order to ensure challenging, sustainable and effective learning takes place.

As children and young people move through the education system in Wales they must not be viewed as *aiming towards* the four purposes, but rather must be seen *as living the four purposes* during their time at school – the purposes, then, are not simply goals to be reached at the age of 16, but are also descriptions that inform how we 'position' children throughout their education in schools in Wales.

8. What view do we have of pedagogy?

The notion of 'child-centred' learning and children 'working at their own pace' can imply a pedagogic role that is facilitatory; that is, the role of the teacher is to facilitate the child or young person to lead their own learning or set the pace and/or direction of this learning; the teacher does not take a proactive role in progressing this learning. It is suggested here that such a view of pedagogy in the new curriculum will be unhelpful. Wales has experience of significant curricular innovation in the shape of the Foundation Phase, introduced in 2008. Recent evaluations (Siraj 2014; Welsh Government 2015) have indicated that poorly understood models of appropriate pedagogy hampered the success of the innovation that, where effectively implemented, has had positive impact on learner outcomes.

Successful Futures provides clear guidance on what is meant by appropriate pedagogy:

Pedagogy is about more than 'teaching' in the narrow sense of methods used in the classroom. It represents the considered selection of those methods in light of the purposes of the curriculum and the needs and developmental stage of the children and young people.

Teachers will draw on a wide repertoire of teaching and learning approaches in order to ensure that the four purposes are being fully addressed and that all learners are engaged and the needs of individual learners are recognised. Teachers will avoid labelling teaching approaches; rather they will consider their appropriateness in terms of purpose. Approaches will encourage collaboration, independence, responsibility, creativity and problem solving in authentic contexts which will draw on firm foundations of knowledge. Approaches will employ assessment for learning principles and make use of scaffolding, modelling and rehearsal.

In order to enact the vision set out in Successful Futures it may be helpful to signal *intentional pedagogic approaches* throughout. That is, the teacher, with the support of appropriately articulated progression frameworks, undertakes to work intentionally with each learner in the direction of progress and to maintain a focus on pace and ambition throughout this process. AoLE groups will wish to consider how this approach may be facilitated by the learning progression frameworks which they develop.

In conclusion

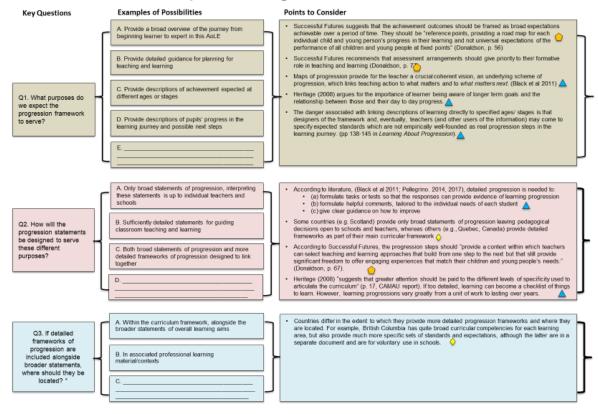
This research report, following the first seven months of work of the CAMAU project, is offered to the education community of Wales and, specifically, to the Pioneer Networks in the spirit of subsidiarity as set out in Successful Futures. The report reviewed evidence from a range of national curriculum and assessment frameworks and evidence from research on progression both as it relates to curriculum and assessment and in the context of the six Areas of Learning Experience. In this final section key ideas emerging from the various evidence sources were used to develop principles. These principles may be used in a number of ways, eg, as a touchstone to check that as ideas develop they remain consistent with original aspirations. Analysis of the evidence pointed to a number of possible alternatives approaches to the design and development of progression frameworks. To remain consistent with the concept of subsidiarity, these alternatives were offered as decisions to be taken. Each decision was structured around questions to be addressed, each supported by available evidence to promote better informed decision making. Each AoLE considered carefully the evidence available and made proposals to the Coherence Group. In the majority of cases it was possible for groups to agree a single proposal, however, in a small number of cases, two alternative proposals as to how a particular issue should be addressed were submitted from the same group. An example of a decision tree can be found in Figure 13 below. Further examples of decision trees from different AoLEs are provided in Appendix 3.

The decision tree approach was very well received by AoLE members and the proposals submitted to the Coherence Group provided them with a strong evidence base from across AoLEs to allow collective, well informed decisions to be taken.

The next and final CAMAU research report will begin by examining the agreed progression framework and will consider the development and enactment of its principles as they begin to emerge in practice.

Figure 13: Decision Tree

Purposes of Progression Framework



^{*} Q3 follows from Q2 and is only relevant if the preferred possibility for Q2 is B or C

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Appendix 1

CAMAU Project

International Policy Review Guidelines

STEP 1: Notes on progression for the country

Name of Country:

Year the curriculum was written/published/updated:

Website(s) where materials were found:

How is the curriculum structured? E.g., Is there a curriculum document as well as achievement outcomes or are these combined? Are there supporting materials for teachers? Is there one curriculum across all ages or is it split into primary and secondary?

How many stages/levels/benchmarks are included? Are they aligned with specific years?

What components/subjects/themes related to the AoLE are covered in this country's curriculum? What seems to be missing?

How does the documentation define 'what matters' in this AoLE? Does this include content knowledge, competencies, skills, etc? What is the balance between knowledge and understanding, skills, attributes, and capabilities?

How is progression defined? Is it defined explicitly or implicitly? You may need to look outwith the statements themselves at the supporting documentation and introductions to the curriculum. Give some specific quotes or examples.

Are key progression points identified as expected standards for specified ages? Or as descriptions of knowledge, skills, capabilities needed for further progression in learning? Or is it some combination?

What form do statements of progression take? Are they detailed or broad? Are they in pupil-first language or written for the teacher? Provide some examples.

To what extent does the curriculum for this AoLE seem to align with what is written in Successful Futures? Does it seem to align with Donaldson's vision for progression? Give some examples.

Is there anything else worth noting? E.g., Is there anything particularly unique, innovative, or useful about this curriculum? Are there any aspects of the AoLE that are included in cross-curricular aims? Was there anything within this portion of the curriculum that seems to have connections with any other AoLE?

STEP 2: Summary Statement

Please write a summary of how this country has tried to describe or incorporate progression into their curriculum for the AoLE. Please include your own evaluation in terms of its potential advantages and disadvantages as an example of incorporating progression for this AoLE. This summary should be less than a page (less than 500 words) but can of course be shorter or longer as needed, and should complement the notes you have taken above.

STEP 3: Collating Across Countries

We will combine the information you have provided for each country into one document and write an overall summary statement comparing across the countries. We will then send this final document out for your feedback to make sure your country is represented appropriately and to seek your insight on

Appendix 2

Guidelines for H&WB Literature Review

Aim:

To describe what published evidence exists that might inform our understanding of how pupils progress within the domain of health & wellbeing

Scope:

Successful Futures defines the scope of this AoLE as: "This Area of Learning and Experience draws on subjects and themes from PE, mental, physical and emotional well-being, sex and relationships, parenting, healthy eating and cooking, substance misuse, work-related learning and experience, and learning for life. It is also concerned with how the school environment supports children and young people's social, emotional, spiritual and physical health and well-being through, for example, its climate and relationships, the food it provides, its joint working with other relevant services such as health and social work, and the access it provides to physical activity." (Successful Futures, p. 45). Our review, in line with Successful Futures, will aim to cover these core areas of the field. In accordance with the health and wellbeing report that the AoLE presented in June 2017, we will also include a brief overview of character education, which is somewhat aligned with the competencies that the teachers deem important: readiness, reflectiveness, resilience, respectfulness, resourcefulness and responsibility.

Thus our review will examine what evidence exists on progression in pupils' learning related to the following themes:

- physical education, physical literacy, physical wellbeing (Nanna)
- mental wellbeing and mental health (Sarah Stewart)
- healthy relationships, peer relations, sex, and parenting (George Wardle)
- nutrition, including healthy eating and cooking (Kara)
- substance misuse, abuse, and personal safety (Sue James)
- work-related learning and learning for life (Rachel Bendall)
- character education (Kara)

Stage 1: Finding Literature:

It is important to by systematic in the steps that we take so that we can communicate to others how we conducted our review so that it can be evaluated by others, be replicated if desired, and also to allow for consistency across the members of the group. In order to do this, we should follow the following guidelines:

- 1) Independent search with keywords: It is recommended that we use Ebscohost or a similar academic database and keep track of the keywords that we have used to search for literature. Certainly we should search for "progression" but be aware that it may not be a word that is commonly used so additionally we may look for similar keywords such as "child development" or "developing" + various keywords for the topic we are exploring. When looking through results, we can scan the title and abstracts to decide what may be relevant, and we should keep a running list of the sources that we plan to review. If a source sounds particularly relevant but one of our Universities do not have access we can use interlibrary loan to try to obtain the relevant source.
- 2) Expanded search: The next set of searches will involve exploring the work and authors that are cited within the original sources we have found. For example, one paper (such as the article by Margaret

79

Heritage) may cite very useful literature that we can then follow up with, or we may start to recognize some names of authors who are experts in our area and can do an author search within Ebscohost to explore their work. Again, we should keep track of the process we have used and keep a running list of the sources we plan to review.

- 3) Advice from Professors: We will ask our professorial consultants to also recommend papers or authors that would be relevant for our purposes.
- 4) Collegiate advice: If we come across something that may be relevant, share with one another. If we have a colleague who studies this topic, ask them. Keep track of which sources were recommended in this manner.

During this phase it is important to consider screening and excluding any papers that seem less useful. We may want to keep a list of all the papers we have considered and the ones we end up using for the review. Given our short time frame, the important thing is that we read enough core pieces in the area in order to begin describing with some confidence what is known in this area of progression.

Stage 2: Analysis for the Review:

Our literature review should be a synthesizing statement about the broader literature within a particular area that answers some critical questions related to progression (rather than just a summary of individual articles). It should be clear that this is an informed perspective and evaluation of the field, citing relevant sources for each point that we are making. When it is helpful we can use quotes and specific examples from the literature, or to create tables to help make points of comparisons or contrasts.

Next, using the papers that are relevant, we will want to report/describe substantial elements from the papers, consider the extent to which they inform our work of progression, note similarities/differences across the papers, and at the highest level, consider the sources themselves and their relevancy.

When reviewing the articles, we may wish to consider the following questions:

- What evidence exists that informs our understanding of progression in this domain?
- In what ways have researchers described how children develop their knowledge/skills/capacities in this area? In other words, how do they model progression? For example:
 - According to the literature, are the changes that children make qualitative jumps (with big steps at key moments) or more gradual sophistication (children seen to gradually add more of the same skills over time)?
 - Is progression linear or could children move backwards and forwards?
 - Do the researchers see children's progression as something that can be impacted on by the environment and open to change, or is it fixed?
 - Is there one path that children seem to take in this area, or are there multiple paths? Do the
 researchers acknowledge that children may have different paths based on the context in
 which they grow up/learn?
 - Are there different models of progression for the same topic and to what extent do they overlap, complement, or conflict?
- To what extent does the literature focus on how children develop in terms of their knowledge/understandings vs. behaviours/skills?
- To what extent is the progression that is described at a micro-level (for one lesson/unit) or at a macro-level (across multiple years)?
- What ages are covered when describing how pupils learn in this area? Which ages seem to be missing or receive less adequate attention?
- What is the theoretical background of the relevant literature (e.g., education, public health, psychology, etc.)? We may get some insight by looking at the journal it is published in as well.

80

- Importantly, what seems to be missing in this area? What do we still not know? Is there not a lot of research on this topic?
- To what extent could the research in this area help to inform models of progression that could be useful for teachers and for learners?
- What can we use from this literature for our purposes of writing a framework of how children progress in this area?

This literature review will serve two purposes. 1) to inform teachers about what is known in the literature that may inform their understanding of progression in this area, 2) to be a systematic review that would be appropriate for journal publication.

Stage 3: Writing the Review:

What will the overall review look like? Proposed outline for the literature review:

- A. Introduction with description of H&WB for Wales based on Successful Futures
- B. Literature reviews for each of the sub-areas we propose to examine
- C. Overall summary comparing and contrasting literature across areas as well, as well as evaluation of the scope and depth of literature on progression in the H&WB area, and unanswered questions
- D. Implications and issues, based on the literature, for creating assessment frameworks of progression in H&WB

How long should the review be? The overall review for our AoLE will likely be approximately 6-10 pages but could be up to twice as long if we happen to find a lot of relevant literature. That means approximately 1-2 full page per sub-area (about 500-1000 words if using Arial 12pt single spaced), with an understanding that some will be longer and others will be shorter depending upon what is or is not available.

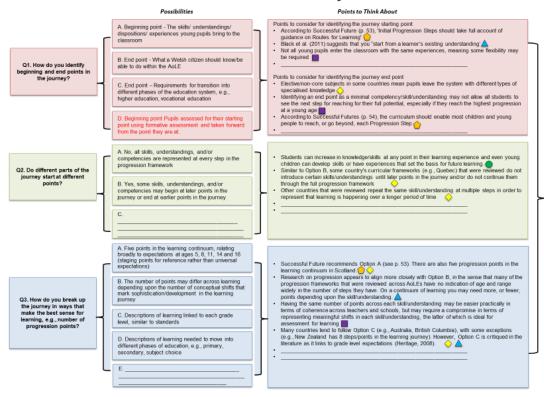
Most of the work is done before writing, through coming up with a list of relevant sources, reading the literature, taking notes, and reflection and synthesis. Our point is not to be comprehensive but to read enough core pieces in each area in order to begin describing with some level of confidence what is known in this area. What we end up writing is a concise critique and summary of the literature in this area. Readers can refer to our cited sources if they want to learn more.

How many sources should I read? Again this depends strongly on each of our topics and what is available in the literature. We may be making several points that need to be justified by sources but the sources are only peripherally related to the main topic in which case we could have dozens that we are drawing upon for each part of the review. Or we may find just 3 or 4 highly relevant sources that cover the topic in great depth that we are focusing on and deem this to be sufficient for the sub-area.

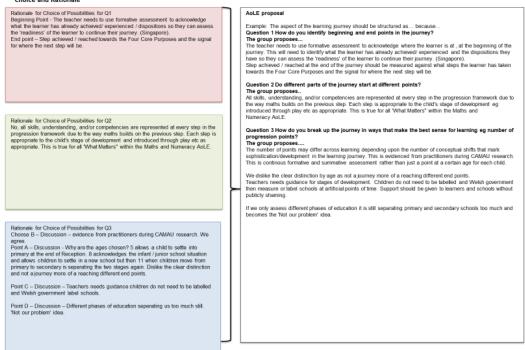
Appendix 3

Mathematics & Numeracy: Points in the Journey

Points in the Journey



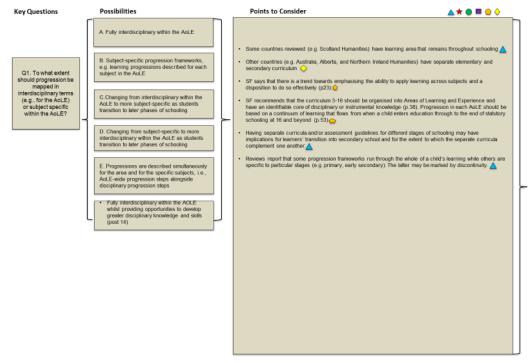
Choice and Rationale



Implications for other decisions to be made about progression

Expressive Arts: Progression as Interdisciplinary or Disciplinary

 $\label{progression} \textbf{Progression as Interdisciplinary or Disciplinary as the Journey Develops}$

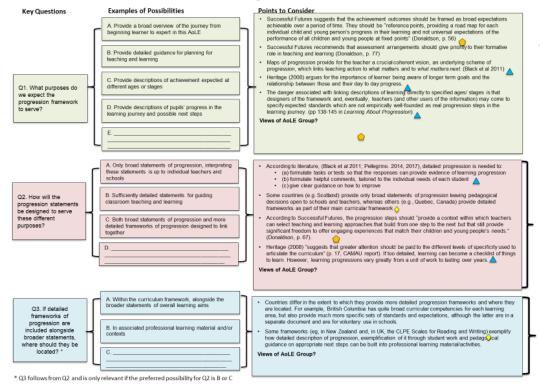


Progression as Interdisciplinary or Disciplinary as the Journey Develops

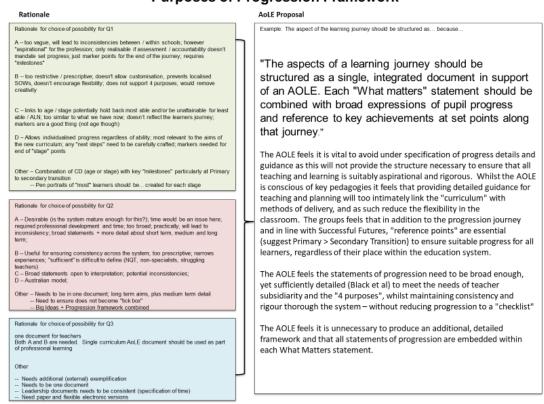
Rationale for choice of possibility A core progression that stays all the way through however there needs to be a mobilar system post. If in order to allow students to choose according to their perfective interfect acid or latevil. Could there be complementary vocational pathways – EA and specialize in particular disciplines? All children will be studying EA beyond 14 – but only some will specialize in particular disciplines? Schools will need examples it a lead creative school case studies The creative processes definited in the three pitters are interdisciplinary. The curriculum 3-16 should be organized into Areas of Learning and Experience and have an identification of the continuum of learning that these from when a child enters education through to the end of statistics y schooling at 16 and beyond (SF p.S3).

Science and Technology: Purposes of Progression Framework

Purposes of Progression Framework



Purposes of Progression Framework



List of additional documents available online

- 1. References to 'progression' in Successful Futures
- 2. Health and well-being: links to national curricula
- 3. Health and well-being: examples of progression statements
- 4. Humanities: links to national curricula
- 5. Examples of Religious Education Progression Statements in Scotland

These documents are available at

https://www.dropbox.com/sh/tgtjidlcuze9zt7/AABP34QNYEPcelJsjwlklBrGa?dl=0

Note also that analyses of individual country frameworks in the various curricular areas are available from the CAMAU project team.