CAMAU

Dilyniant Dysgu i Gymru | Learning Progression for Wales

Learning about Progression:
CAMAU Research Report
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Languages, Literacy and Communication

University of Glasgow

Llywodraeth Cymru
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Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Learning about Progression –

Informing thinking about a Curriculum for Wales

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.

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.

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 on-going 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?

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.

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

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:

- 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.

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.
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.

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.

6. 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

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.

Languages, Literacy and Communication: Review of Frameworks

Purpose of the report

The AoLE Group will develop the Progression Framework within the context of a 'continuum for communication and language acquisition and learning which will encompass Welsh (for Welsh medium, bilingual and English medium settings and schools) English and EAL, international languages and non-verbal communication'. This will recognise that 'Progression Steps will differentiate according to how much contact a child has with a particular language, how long they have been acquiring or learning the language and the nature of the provision' (A new Curriculum for Wales: The story so far… pp. 14-15). The review of frameworks was conducted keeping in mind the intention of the Languages, Literacy and Communication AoLE Group to develop a common curricular and progression framework for all language study in the contexts listed above The researchers were aware of discussion within the AoLE Group about practical issues in ensuring that students learning Welsh but not speaking it regularly at home or in their community could develop their abilities as well as Welsh first language speakers, but did not address this particular issue fully in the review. The focus of the review work was specifically to find evidence relevant to ways of describing progression in Languages, Literacy and Communication in any language or languages. It was understood that the AoLE Group would be considering later the question of how generic descriptors of progression might be differentiated to take account of learners' varying experience of the language. However, the review did consider some factors relevant to developing Languages, Literacy and Communication, drawing on evidence from contexts which have experienced similar language histories, display similar linguistic demography and are developing similar approaches to language policy to those of Wales.

The report seeks to identify key issues and decisions relating to writing descriptions of learning which will constitute a Progression Framework charting pupils' journeys through the learning process in Languages, Literacy and Communication. It is a principle of *Successful Futures* and of the CAMAU Project that 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. The Progression Framework should enable both teachers and learners to plan ahead and 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 learning and refers to relevant frameworks as representative of these approaches. These types of approach may offer potential models for 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 relating to the development of language and literacy in classrooms where the home language and the language of education are the same were reviewed from the following sources:

- Australia
- British Columbia

- England (Centre for Literacy in Primary Education (CLPE) Scales for Reading and Writing)
- New Zealand
- Ontario
- Singapore
- USA (Common Core State Standards (CCR) in English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects)
- Wales (the current national Literacy Framework and the Programmes of Study for Foundation Phase and each Key Stage).

Consideration was given also to some aspects of how the Finnish education system describes progression.

Four frameworks relevant to the development and teaching of modern languages were reviewed:

- the American Council on the Teaching of Modern Languages (ACTFL) Performance Descriptors For Language Learners (2015)
- the Common European Framework of Reference for Languages (CEFR) (1996)
- PEPELINO (European Portfolio For Pre-Primary Educators) - Plurilingual And Intercultural Dimension (2015)
- FREPA: A Framework of Reference for Pluralistic Approaches to Languages and Cultures (2012).

Frameworks were also reviewed from educational contexts which could provide information relevant to Welsh policy and practice in ensuring equality of status between Welsh and English. These frameworks were those of:

- Scotland (Literacy and Gàidhlig, Literacy and English, Gaelic (Learners) and Modern Languages)
- Republic of Ireland (Gaeilge, English)
- Basque Country (Basque, Spanish, English)
- Netherlands/Friesland (Frysk, Dutch, English)

In addition, limited information was obtained from Austria and Flanders about relevant aspects of language learning provision and consideration was given to ideas of progression in the context of Content Language Integrated Learning (CLIL) pedagogy (with exemplification specifically from Spain).

A Note on 'What Matters'

It became apparent during the review process that 'what matters' and 'progression' overlap. In some frameworks the 'main aims' of the curriculum or language programme 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: the *range and types of aspects* of Languages, Literacy and Communication that are explicitly included in a framework. This review of frameworks demonstrates variations in strategic decisions about what matters. As examples:

- *Singapore* identifies six Areas of Language Learning:
    - Listening and Viewing
    - Reading and Viewing
    - Speaking and Representing
    - Writing and Representing
    - Grammar
    - Vocabulary
- *Ontario* covers:
    - Oral Communication
    - Reading
    - Writing
    - Media Literacy
- the *New Zealand* and *Wales* frameworks comprise (New Zealand's wording is slightly different from that of Wales):
    - Oracy
    - Reading
    - Writing
- the *USA* framework covers:
    - Reading
    - Writing
    - Speaking
    - Listening
    - Language
- the CLPE Scales cover only Reading and Writing (though they make it clear that development of oral abilities is an important part of the richness and complexity of language education and growth).

Some of these frameworks, such as those of Australia and New Zealand, explicitly signal the importance of cultural awareness in developing language knowledge and skills. Through Australia's *Speaking, Writing, Creating and Listening, Reading,* and *Viewing* activities learners should develop language skills which allow them to function in society – language is placed in its social context and the diversity of this context is recognised. Digital and visual literacies are integral. There is an emphasis on engagement with an audience through both speaking and the written word in diverse social contexts. From an early age opinions and comprehension – meaning-making – are valued.

The modern languages frameworks reviewed also expand what matters beyond the traditional oracy, reading and writing to identify competences relating to linguistic knowledge and pragmatic and sociolinguistic aspects of language use (CEFR) or to Communication, Cultures, Connections, Comparisons, and Communities (ACTFL).

Certain aspects recognised elsewhere are not visible in the frameworks reviewed. Firstly, given that the third element in the AoLE (Languages, Literacy and *Communication*) is not necessarily linked to

language, the issue has been raised of the need to attend to 'multiliteracy', which goes beyond traditional spoken and written verbal communication to include communication and texts which make use of a range of graphic tools, of digital means or vehicles of communication such as blogs, of video and film, and of non-verbal aspects of communication such as gesture.

Secondly, in a bilingual society such as Wales, consideration should be given to the inclusion in the framework of Communicating across Languages (translanguaging, translating, cross-languaging, etc.) and Comprehension (moving from passive language acquisition to active orientation to interaction and communication in more than one culture) (communication from Professor Mererid Hopwood). FREPA provides an approach to at least some aspects of these last aspects of language learning.

The documents reviewed do not reveal much about justifications for one or other of the ways of setting out the broad structure of a 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).

The review of frameworks throws up the variations in strategic decisions about what matters as an issue for consideration and resolution. Whichever broad aspects of Languages, Literacy and Communication the group chooses to value and identify as the key components of what matters will inform the writing of descriptions of learning.

Possible Models for Writing Descriptions of Learning

The frameworks reviewed provide a number of models, the relevance, use, advantages and disadvantages of which can be considered by the Languages, Literacy and Communication 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 language education. They show progression in these achievements as learners 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 learning 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 Languages, Literacy and Communication group arise concerning both the determination of the central aspects of learning in the AoLE and the specification of the appropriate (that is, helpful and manageable) level of detailed description of it. Another necessary decision concerns the best location of detail: within the curricular/progression framework itself or in associated material available to teachers as part of their continuing professional development?

Highly Detailed Prescription

Several national or state frameworks incorporate a large amount of detail into the descriptions of achievement or the specified standards in the framework itself.

In *British Columbia* key progression points are identified as expected state standards for specified ages. Expectations of performance are spelled out in considerable detail (e.g. for both literary and information texts in Reading) under headings that in effect specify what matters: e.g. for Reading and for Writing: Purposes, Strategies, Thinking, Features (of text). Each of the main headings has further sub-divisions, which identify other aspects that matter – e.g. under Comprehension in Reading, there are s*tory elements, predictions, inferences, details, theme.*

The *Ontario* framework identifies desirable achievement in considerable detail, specifying both language knowledge that students should have and a quite wide range of thinking, communication and application skills they should demonstrate. It spells out for every Grade (year group) Overall Expectations and Specific Expectations for all aspects of language work. There are thus 10+ pages per Grade of detailed guidance on expectations. The teachers are then required to make an assessment judgement on each expectation. The judgement results in the application of a 1-4 mark, where 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.

Singapore divides each of the six Areas of Learning (such as *Listening and Viewing*) into Focus Areas, each of which has three or four learning outcomes; these LOs are then further sub-divided: for example, the LO *Demonstrate positive listening and viewing attitudes and behaviour by showing attentiveness and understanding* has the sub-headings

- *Listening and viewing attitudes and behaviour;*
- *Perception and recognition of sounds and words in context;*
- *Listening and viewing for understanding;*
- *Critical listening and viewing;*
- *Listening and viewing widely.*

Under these sub-headings, particular skills are nominated, ranging from those expected at Primary 1 level, e.g. *identifying the gist/main idea and key details* to those covered at Upper Secondary level, e.g. *understand abstract ideas when concrete examples are used*. This process is repeated for each of the six Areas of Learning, resulting in a very detailed document of skills and sub-skills.

The *USA* framework specifies Standards with detailed descriptors for each Grade (year group). Students advancing through the Grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades. Some of the individual skills, called Language Progressive Skills, are identified in a progression table with expectations for each Grade. These skills are identified because they are particularly likely to require continued attention in higher Grades as they are applied to increasingly sophisticated reading, writing and speaking.

The *CEFR* modern languages framework contains a much detailed description of the characteristics of learner competences in Speaking, Reading and Writing across Linguistic, Pragmatic and Sociolinguistic dimensions at each of its six levels. The levels, A1, A2, B1, B2, C1 and C2, span the whole journey from Basic User to Proficient User of a language; normally only A1, A2 and B1 are relevant to the period of school education.

The *ACTFL* framework provides descriptions of standards of performance using broader statements than the CEFR for nine levels (Novice, Intermediate and Advanced, each sub-divided into High, Mid and Low) spanning pre-kindergarten to post-school learning. The ACTFL framework is more

manageable, though less descriptive, than the CEFR. It recognises the significance in the development and assessment of language of such factors as whether the learning is taking place in a formal setting (like school) with explicit teaching or a naturalistic one where the learning is more informal; the importance of age and cognitive development in the learning process; and the relative significance of extrinsic and intrinsic motivation.

The highly detailed specifications of standards or expected achievements described in preceding paragraphs do include descriptions of knowledge, skills and capabilities needed for further progression in learning and the documentation in some cases includes exemplification of appropriate activities to develop the desired knowledge or skills.

It is difficult to judge the extent to which the specified standards may reflect actual learning in real classrooms, but in the case of *British Columbia* the documentation claims that these have been developed out of the professional judgments of a significant number of educators about standards and expectations.

There is a clear intention in all of these sets of standards to give teachers (and perhaps learners) very full guidance about learning aims and criteria learners are required to meet. In principle, these kinds of detailed description and exemplification of performance at different levels of quality could be used effectively to support assessment for learning. They might, however, be too detailed for teachers to manage its use comfortably. A question arises, for instance, whether Ontario teachers can actually make assessment judgements for all the many Specific Expectations listed for a year group. In Singapore there is an expectation that teachers should plan balanced assessment in the six Areas of Language Learning, using tasks in authentic settings and contexts which allow pupils to use language in a meaningful manner. Tasks might include informal tests, portfolios of written work and performance assessments of oral work; the assessment should be both formal and informal, using different modes and at a frequency decided by the school. The potential danger is, however, that the very large number of detailed points to be assessed could lead easily into a fragmented 'tick-box' approach, failing to match the complexity of pupils' varying real learning processes and real grasp and use of language.

Existing Welsh Frameworks

The existing *Welsh* national *Literacy Framework* (LF) and the *Programmes of Study* for Welsh and English exemplify highly detailed prescription of standards/expected achievement. Literacy Framework statements (relevant to cross-curricular learning and to the use of language skills in daily activities at school, at home, at work, and in the community) are readily distinguishable from those referring specifically to the subjects of Welsh and English (which engage young people in study of language as an art, response to literature and analysis of style and tone). The Literacy Framework identifies age-related expected outcomes (by school year). In the Programmes of Study Expected outcomes for Oracy, Reading and Writing are defined at the end of the Foundation Phase and at the end of each Key Stage. The Foundation outcomes range from 1-6, with 6 including, for example for Reading:

> *'Children read independently and use appropriate strategies to establish meaning, reading fluently and expressively. They can identify different purposes of texts and how they are organised, skim content and select texts based upon their needs. They identify the topic and*

> *main ideas of a text, deducing information by making links between texts and using information beyond their personal experience'.*

The *Foundation Phase Profile* is a tool for providing a national baseline which aligns with the specified outcomes. The *Profile Handbook* provides details of all the skill ladders included within it along with supporting information.

At the end of Key Stages 2 and 3, standards of learners' performance are set out in eight level descriptions of increasing difficulty, with an additional description above Level 8 to help teachers in differentiating Exceptional Performance. These standards describe the types and range of performance that learners working at a particular level should characteristically demonstrate. In deciding on a learner's level of attainment at the end of a Key Stage, teachers are prompted to judge which description best fits the learner's performance. Unlike the LF statements, expected outcomes for levels are not are not explicitly age-related: it is recognised that learners at the same Key Stage could attain different levels. There is, though, a clear sense of 'expected' performance at the end of each Key Stage.

The relationship between the LF and levels systems is not entirely clear, but there is potential for either or both to be used for assessment. Both are written in language that, clearly, could be used summatively. The levels descriptors could contribute to identification of next steps. The LF documentation explicitly advocates the use of the LF in assessment for learning. The stated aim is explicitly formative: year-by-year expectations should not be used to 'judge whether a learner is working at/above/below the expected level for their age' but rather to 'describe' next steps.

Two issues arise from this. *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 Progression Framework and descriptions of learning relate to the new Literacy Framework. Consideration may also be given to the appropriateness of drawing critically on the levels descriptors in the existing Programmes of Study as the LLC Progression Framework and associated descriptions of learning are developed.

Welsh, English, Modern Languages

As noted above, an encompassing and inclusive language development continuum will recognise the range of language experience of our learners. It may helpful to consider the differences and similarities in progression frameworks in jurisdictions with more than one official language and/or more than one language of education. The intention of the AoLE to develop a common progression framework for all languages seeks to address the concern that use of different frameworks and means of describing learning in different languages may contribute to inequality of status between/among languages.

Both Scotland and Ireland are similar to Wales in having two statutorily recognised languages used as a medium of education. Both Scotland and Ireland recognise that the less common language (Gàidhlig or Gaeilge) may be used as the language of instruction or may be taught as a second language. In both these countries the less common language is the first language of only a small proportion of the population.

Table 10 below compares the structures of the four Scottish languages frameworks: Literacy and English, Literacy and Gàidhlig, Gaelic (Learners) and Modern Languages.

High level organisers	Sub-organisers		
	Literacy and English **Literacy and Gàidhlig**	**Gaelic (Learners)**	**Modern Languages**
Listening and talking	Enjoyment and choice	Listening for information	Listening for information
	Tools for listening and talking	Listening and talking with others	Listening and talking with others
	Finding and using information	Organising and using information	Organising and using information
	Analysing, understanding and evaluating	Using knowledge about language	Using knowledge about language
	Creating texts		
Reading	Enjoyment and choice	Reading for interest and enjoyment	Reading for interest and enjoyment
	Tools for reading	Reading for cultural appreciation	Reading to appreciate other cultures
	Finding and using information	Finding and using information	Finding and using information
	Analysing, understanding and evaluating	Using knowledge about language	Using knowledge about language
Writing	Enjoyment and choice	Organising and using information	Organising and using information
	Tools for writing	Using knowledge about language	Using knowledge about language
	Finding and using information		
	Creating texts		

Table 10: derived from the relevant statements of experiences and outcomes (accessible at [https://education.gov.scot/scottish-education-system/policy-for-scottish-education/policy-drivers/cfe-%28building-from-the-statement-appendix-incl-btc1-5%29/Experiences%20and%20outcomes#lang)](https://education.gov.scot/scottish-education-system/policy-for-scottish-education/policy-drivers/cfe-%28building-from-the-statement-appendix-incl-btc1-5%29/Experiences%20and%20outcomes#lang)

The two literacy frameworks share a common structure, within which the statements of experiences and outcomes through which progression is described are almost identical. The one significant difference is that, since the Gàidhlig framework is used to support the learning not only of children whose first language is Gàidhlig but also of children in Gàidhlig medium immersion classes, it includes an additional line of development within 'Tools for listening and talking'.

The structures of the two frameworks for learners of a language are almost identical; however, there are few common statements in the two papers. The Modern Languages framework is linked to CEFR levels in that level of proficiency expected at age 11 equates approximately to level A1 (Breakthrough) and the level expected at age 14/15 equates to level A2 (Waystage).

In Ireland there is a clear distinction made in the primary school curriculum statement between teaching Gaeilge in schools in which Gaeilge is a second language and teaching Gaeilge in all-Irish schools and those in the Gaeltacht. The Scottish parallelism between English and Gàidhlig is not apparently reflected in a parallelism between English and Gaeilge in terms of the statements describing expected learning at each stage within primary school.

In very many countries different standards and/or progression frameworks apply to second language learning than to the first language of education. As examples:

- Provision in Austria is typical of many countries. The expected standards in the 8th year of education are notably different for German and English: the standards statements in the latter are explicitly tied to the CEFR levels (almost all statements are equated with either A2 or B1).
- Provision in Flanders is less typical. The expected standards at the end of primary school for Flemish and for French, the other principal official language, are distinct. In secondary education the expected standards for each year maintain this distinction but the situation is more complex: distinct standards continue to be provided for Flemish and French in the early years of secondary education in both the A-stream and the B-stream; in addition, within the A-stream provision is made for English and standards for this language are matched to the standards for French. These standards are supplemented by detailed standards for Flemish for newcomers to the school system who speak a language other than Flemish.

However, some educational systems have moved towards common descriptions of learning in different languages where education is bi- or multi-lingual.

In Friesland some 20% of primary schools are trilingual, with Friesian, Dutch and English as languages of instruction; in the other schools Frisian is typically taught as a discrete subject. in trilingual schools, Friesian is used as the language of instruction for 50% of the curriculum in the first six years and 40% in years 7 and 8; Dutch accounts for 50% of the teaching in the first six years and 40% in years 7 and 8; English is used as language of instruction for 20% of the time in the last two years. The progression framework used to assess progress in Frisian is derived from the Common European Framework of Reference (levels A1 to C1) adapted to match the already existing progression frameworks for Dutch; within this framework (Referinsjeramp Frysk) statements have been recast in 'I can' form. There are assessment tools, including tests and observation schedules, available on-line linked to this progression framework.

San Isidro (2017) provides a summary of language policies in those autonomous communities in Spain with two co-official languages), noting that:

> *'Throughout the last three decades, since the respective autonomous institutions were created, a wide range of language policies have been implemented. The particularities of these policies have to do with specific sociolinguistic contexts, the civic and political resources engaged in implementing them, and the diverse historical and ideological backgrounds the issue of language has in every place.'* (p. 3)

In summary, while Spanish is the official language of the country, other languages are recognised as co-official in six autonomous communities and different educational approaches to recognising this have been developed. More recently, these communities (as with the rest of Spain) have been facing the challenge of combining these language policies – aimed at the use and the standardisation of previously minoritised languages – with new needs related to multilingualism.

- In the region of Catalonia, the education system is based on either total or partial immersion policies.
- The Galician model is underpinned by a tri-lingual policy, with Galician, Spanish and English used as languages of instruction (33% each).
- In the Basque Country three different models exist in the different geographical areas, reflecting the different socio-linguistic situations. In Model A, the language of instruction is Spanish and Basque language is studied as a discrete subject. In model B some subjects are taught in Spanish and half of the curriculum is taught in Basque. In model D, the language of instruction is Basque and Spanish is taught as another language.

Cenoz (2009) points out that, though there is still a tendency for teachers in multi-lingual contexts to continue to work with a 'monolingual approach', some practices in Basque multi-lingual education adopt a common framework for the three languages used (Basque, Spanish and English), based essentially on the CEFR Modern Languages framework.

Two other characteristics of multi-lingual education in Spain and the Basque Country may be relevant to consideration of effective ways of describing progression in learning in Welsh, English and Modern Languages in Wales. One is the 'perfiles linguisticos' approach (used in the Basque Country) in which necessary levels of competence for particular jobs or professional posts are detailed. The other is the use of CLIL (Content Language Integrated Learning) pedagogy. Quite detailed progression frameworks exist for modern languages learned through the CLIL approach. These take account of the interplay among Content, Cognition, Culture and Communication in learning. In CLIL, progression in both language and content must be recognised and learning must recognise the cognitive development and prior learning of the students.

To summarise the evidence from bi- and multi-lingual contexts concerning means by which progress is described, it is notable that the Friesian and Basque systems essentially use adaptations of the CEFR Modern Languages framework. There may be a potential in Wales to base a common progression framework for all languages based on adaptations of CEFR, taking account of the points about pedagogy and assessment made by Cenoz and Gorter (2016) and of the ways in which CLIL frameworks take account of students' cognitive development and cultures.

An approach to describing progression as broad as the CEFR framework would raise the issue of how teachers and learners would be able to access more detailed descriptions of learning necessary to

enable them to identify next steps and operate effective assessment for learning. It also raises the question of the extent to which frameworks such as the CEFR afford space for multi-modality, code-switching and translanguaging and the ways in which their expectations are consonant with the four purposes at the heart of *Successful Futures.* There is a suggestion relating to this issue in the comment about the possible use of the PEPELINO and FREPA teacher support systems at the end of the next section 'Lean Achievement Outcomes'.

'Lean' Achievement Outcomes

Some frameworks focus on relatively succinct key outcomes as the basis for assessment. They avoid large amounts of detail in the curriculum documentation itself, yet still aim to provide teachers with much detailed support to guide assessment for learning and next steps decisions.

The *Finnish* approach is particularly succinct. It sets out what learners are able to do at the end of two stages of basic education, the ends of Grade 2 (age 9) and Grade 5 (age 12), but does not describe progression between these points. In *Language and Interaction*, the description of good performance for interaction at the end of Grade 2 consists of three briefly worded bullet points. There is a well-established understanding among Finnish teachers that it is their professional duty to know the curriculum and pedagogical approaches well enough to enable pupils to progress without very detailed central specification of learning targets (or, at least, to find ways of doing this, e.g. through use of course books, which, in effect, do identify specific intermediate learning targets in the tasks they set for pupils).

Some frameworks, such as *Australia's*, identify as desirable outcomes key ideas, knowledge, skills, capabilities as broad standards (for every second year 2, 4, 6, 8, in Australia) and define progression through increasing complexity of purposes, contexts and tasks and through increasing complexity and range, stamina and development of skills such as critical thinking in learning experiences. The Australian progression statements are general statements illustrated with some specific examples of focused activity, e.g. *Level 1d Compose Texts* is expanded as '*Create texts with familiar structures such as speech, simple print texts, keyboard texts, illustrations, pictographs; comment on people, events and objects in the past, present and future and to ask questions; convey knowledge about learning area topics*.'

In *New Zealand* there are statements of what students will be able to do at each stage in a *Standards* document (which includes a section called *Illustrating the Standards*). These standards are linked to fairly detailed descriptions of the characteristics of Reading and Writing work in the separate *Learning Progressions* document. Both documents aim to provide description and/or exemplification of 'specific literacy knowledge, skills and attitudes' to address increasingly complex texts and tasks. They do so by describing the characteristics of texts and tasks at the various stages, linking them to specific nationally specified categories of text used to support learning and progression (e.g. 'Gold Level'). The *Learning Progressions* document also exemplifies student work that matches the Standard for a particular stage, with explanatory commentary. This framework thus creates, separately from the broad Standards statements, much detailed material showing examples of the kinds of tasks and pedagogical activities of appropriate levels of challenge relevant to achieving the standards. There is an explicit expectation that teachers will describe and judge progression towards

the standards based on curricular tasks (in a portfolio). In principle such material can form the basis of valuable professional development and discussion for teachers.

The *Centre for Literacy in Primary Education (CLPE)* Reading and Writing Scales consist of descriptions of achievement which are entirely progressive. They describe learners' journey through eight progressive stages, not at all age-related, from *Beginning Reader/Writer* to *Mature Independent Reader/Writer*. At each stage the statement of the learner's behaviour and what they can do clearly describes or implies what matters for progression. The authors claim that the descriptions are empirically validated by the range of research to which they refer and do represent real learning behaviours as pupils progress in Reading and Writing. They can thus contribute effectively to assessment for learning, as well as enabling teachers (and pupils) to record and report at particular points the stage of learning each pupil is at. The descriptions are presented in descriptive prose, not in a format which might encourage 'ticking boxes': they incorporate a large number of factors that matter in the process of reading or writing, which are presented as parts of the complexity of that process, not as separately learnable knowledge and skills. The Scales thus emphasise the idea that the important constituent elements in reading and writing should be learned, developed and assessed in the context of actual communicative tasks and activities. In addition, the documentation provides much helpful pedagogical guidance (separately from the description of the Scales). The Scales and the associated guidance are derived from and supported by large amounts of significant research about what matters in language development. Key points emerging from the research and many research references are listed in the material surrounding the learning stage descriptors.

In the context of ways of providing professional development support for teachers parallel to descriptions of achievement/progression, PEPELINO (European Portfolio For Pre-Primary Educators) - Plurilingual And Intercultural Dimension, 2015) and FREPA: A Framework of Reference for Pluralistic Approaches to Languages and Cultures (2012) both aim to facilitate and enrich teachers' professional development in relation to use of the CEFR modern languages progressive framework. The former addresses plurilingual and intercultural dimensions of pre-primary education and the latter more general issues of interculturality. These could serve as starting 'working documents' to look at Language Competence/ Knowledge Across Languages in Wales

Graded or Ungraded Descriptions of Performance

The frameworks review has thrown up a further issue on which the Languages, Literacy and Communication group will need to make a decision. Some frameworks seek to differentiate learners' performance at the same chronological or progressive stage 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 *ACTFL* framework describes standards of performance for three broad levels – *Novice*, *Intermediate* and *Advanced* – and divides each into *High*, *Mid* and *Low*.

On the other hand, frameworks such as those of *Australia* and *New Zealand* and the *CLPE* Scales 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 and of the CLPE Scales seek to provide desirable guidance and support for pedagogy and assessment for learning through additional associated material and encouraging continuing professional development activities.

'I can' Statements

Ways of describing progression points or standards vary across the frameworks reviewed – some use 'I can' statements, some do not. *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. As noted above, Frisian schools make use of an adapted version of the CEFR in which 'I can' statements of achievement are used. Ashton (2014) also reported that '*in the Nordic-Baltic region, the Bergen can-do project used adapted CEFR descriptors to develop a set of can-do statements for on-going self-assessment for 11–12 year olds*.'

Decisions for the Languages, Literacy and Communication 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 Languages, Literacy and Communication which the group chooses to value and identify as the key components which will determine the areas for which descriptions of learning will require to be written?
- 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?
- Is there a case for considering an adaptation of the CEFR Modern Languages framework as the basis for a common learning progression framework in Wales, with associated detailed guidance on learning development available as teacher professional learning material?
- How may descriptions of learning relate to the national Literacy Framework and existing levels descriptors?
- Might existing Literacy Framework and Welsh and English Programmes of Study be developed to meet *Successful Futures* requirements for achievement outcomes constituting progression steps at ages 8, 11, 14, 16 which are derived from empirical evidence about the real nature of progress of learning in Languages, Literacy and Communication?
- Should descriptions of learning be highly detailed or 'lean'?
- If these are detailed:
    - how can effective AfL use and manageability be ensured?
- If these are 'lean':

- will they take the form of succinct broad statements, possibly with a small amount of expansion?
- will they be narrative descriptions, like the CLPE ones?
- where will detailed guidance for teachers about progression, next steps and pedagogy be located?

• Will descriptions of achievement be graded or ungraded?

• Having decided on the issues listed above (and any others arising from the research review), what are the practical steps to writing achievement outcomes and support material?

Languages, Literacy and Communication: Research Review

Purpose of the report

The review was conducted keeping in mind the intention of the Languages, Literacy and Communication AoLE Group to develop a common curricular and progression framework for all language study, i.e. Welsh and English as first languages and any language as an additional language. The researchers were aware of discussion within the AoLE Group about practical issues in ensuring that students learning Welsh but not speaking it regularly at home or in their community could develop their abilities as well as Welsh first language speakers, but did not address this particular issue in the review. The focus of the review work was specifically to find evidence relevant to ways of describing progression in Languages, Literacy and Communication in any language. However, the review did consider some factors relevant to developing Languages, Literacy and Communication in contexts similar to that in Wales, where policy and action seek to promote bi-lingualism and equality of status for more than one language.

Introduction

This review focuses firstly on a number of relatively recent key texts which deal in different ways with the idea of progression within different aspects of languages, literacy and communication and with ways of facilitating such progression. This work considers progression in the different modes of language, oral language, reading and writing. The model of progression and the model of learning are interdependent, e.g. a spiral curriculum would require different types of progression statements from those employed in a linear model. In addition the weight afforded to different areas in which progression may be evidenced (e.g. grammar) has to be considered in the context of their value as indicators of overall progression. The CAMAU LLC team will continue to review related research as the work of the project proceeds. The report proceeds to note briefly some of the issues raised relating to progression in the context of teaching and learning within multilingual societies and classrooms and then in the final section raises a fundamental issue.

Marshall *et al.* (2018), as part of a comparative international study, explore and identify characteristics of very good English teaching. The characteristics of high quality work identified there are relevant to language development in all educational contexts, including the plurilingual one in Wales.

Learning in Languages. Literacy and Communication can be seen as involving two broad kinds of development:

- 'integrationist' competencies: personal growth; emphasis on the essential humanness of the individual learner; language as means of responding to and giving meaning to experiences (including imaginative ones through literature), learning things, relating to people, conducting dialogue, solving problems, interpreting and achieving communicative purposes in various contexts ...
- awareness and understanding of the nature of language as a discipline: forms and structures; skills of listening, talking, reading, writing and other forms of communication as valuable for their own sake; 'rhetoric' in the broadest sense, becoming aware of how

>   language achieves meaning and influences readers' and listeners' reactions in different ways in different contexts…

The CEFR provides potentially helpful guidance for this language awareness focus in its three main dimensions:

- language activities
    - reception (listening and reading)
    - production (speaking and writing)
    - interaction
    - mediation (translating and interpreting).
- domains of language usage, e.g. educational, occupational, social, personal, etc.
- the competencies speakers apply when they are engaged in language activities.

Put more briefly, these two types of development could be expressed as:

- development of learners' ideas and thinking, on the one hand; and
- development of awareness of the nature and potential of language, on the other.

These two broad types of development could be used to 'explain' explicitly to the readers of a progression framework that these are the main types of learning that study of Languages, Literacy and Communication develops.

Writing

Christie, F. (2010) The ontogenesis of writing in childhood and adolescence. In D. Wyse, R. Andrews, & J. Hoffman (Eds.), The Routledge international handbook of English, language and literacy teaching, London: Routledge.

Christie (2010) proposes that children and young people progress in learning to write through four developmental phases, typically at the following ages:

- 6-8 (lower to middle primary)
- 9-13 or 14 (upper primary to lower secondary)
- 14-15 or 16 (middle to upper secondary)
- 16-17 or 18 (upper secondary to 6th form)

Christie acknowledges that these phases need to be viewed as flexible, partly because of the developmental differences between individual learners, partly because of the impact of environmental factors such as social class, background and life experiences.

The first phase of learning to read or write is often considered to be the most important as this is when children establish the basic tools needed to progress. However, Christie contends that it is the second phase that is most important developmentally, as this is when children effect the transition to successful control of the grammar of written language:

>   *'Successful control of the grammar of written language accompanies, and indeed facilitates, important changes in cognition, as children move into adolescence and on to adult life: capacities for critical reflection on experience, for generalization and for abstract argument, for example, are among the important capacities that adolescence requires, and control of writing has an important function in expression of all these.*

The third and fourth phases see a further expansion of linguistic demands and consolidation of knowledge and skills when the range of meanings which learners are able to construct becomes enhanced and their capacity to express value judgments and opinion grows.

When children first begin to read or write, their writing tends to resemble the way they would typically speak, but making use of a simpler vocabulary than they would do orally as a consequence of their limited experience of the tools for writing. As they mature, learners start to develop control of thematic progression. They move away from reliance on simple noun phrases and personal pronouns and begin to introduce new information, adding clauses to sentences and using adverbs to modify the verbs used. Tenses are varied and circumstantial information is often added. Gradually, learners' knowledge of the use of congruent grammar grows and they develop the ability to expand and elaborate. This is an important step towards the writing of longer texts, a requirement in secondary education.

From phase two and into phase three, learners increasingly use adverbs and adjectives to provide additional circumstantial information and nuanced meaning in their writing. Their use of clauses becomes increasingly more diverse and subtle and, through experimentation, they are able to make certain pieces of information more prominent than others. This facilitates more sophisticated attitudinal expression and learners are able to make more credible arguments and evaluations in their written work.

Another feature of the movement from phase two into phase three is learners' ability to use a non-congruent grammar in order to engage with and write about abstract ideas and to critique, interpret and evaluate the work of others. This ability is necessary for success in many aspects of study in upper secondary schooling and in adult communications of various types. Christie gives a number of examples of how non-congruent grammar or grammatical metaphor manifests in learners' writing:

- turning actions into things or phenomena ('*Removing the trees causes the soil to become loose*' rather than '*If you remove the trees, the soil becomes loose.*')
- '*Our newly extended lives are causing our population to rise like never before.*' rather than '*We now live long lives and therefore our population has grown.*'

The final developmental phase concerns learners' capacity to engage with and to represent increasingly more abstract meanings, including description of and critique of qualities and values in texts, situations or people. This ability is necessary for success in many aspects of study in upper secondary schooling and in adult communications of various types.

Christie characterises development in writing as the movement from writing about the familiar or about personal experience (the 'commonsense') using a congruent grammar system in primary school to writing about the abstract or remote (the 'uncommonsense') using non-congruent grammar during adolescence and into adulthood. The transition is facilitated by the growing recognition, interpretation and internalisation of the grammar of writing.

Christie perceives the development of writing abilities as being very much impacted upon by learners' experiences within school, including the demands of the range of subjects to which they are exposed in secondary school, and by teaching which is crucial in helping learners develop their knowledge and skills.

The four developmental phases involve familiarity with and understanding of language elements (knowledge) and skills in the use of these to express experience and thought.

Myhill, D. A. (2009) Becoming a Designer: Trajectories of Linguistic Development. In Beard, R., Myhill, D. A., Riley, J. & Nystrand, M. (Eds.) The Sage Handbook of Writing Development, London: Sage

Research by Myhill (2009) concentrates on the development of writing of secondary school learners. This recognition of the specific contribution of secondary schooling is valuable as there are very clear differences, for example in teaching grammar for writing, between what is appropriate for early years and primary pupils versus secondary pupils (D. Wyse, personal communication). Myhill attempts to define what 'good' writers do, challenging the current implicit assumption that progression in writing is based on exposure to and engagement with 'a wider repertoire of genres and purposes for writing' alongside a growing accuracy in spelling and the use of punctuation. The study builds on existing research on linguistic development and reports on a large-scale empirical study of the linguistic characteristics of writing in 13 and 15 year-olds.

Most researchers have found that in the writing of learners between the ages of 13 and 17, there is a developmental leap in:

- lexical density
- lexical diversity
- length of sentences and clauses used
- syntactic complexity.

However, Myhill argues that, although development in writing may include the above, these features do not describe progression themselves. What we value in writers is their ability to make meaning; their ability to make the right rhetorical choices and thereby convey 'different shades and nuances of meaning for different audiences and contexts'. It is arguable that some curriculum models largely fail to consider how the progression of ideas for writing might develop, i.e. the overall intentions and purposes for writing that have to be translated into specific ideas that will inform any text.

Myhill's study involved examining two pieces of writing from each of a number of learners in years 8 and 10 in six English schools. One piece of writing was a personal narrative and the other an argument. Each of the pieces was assigned a National Curriculum level by class teachers and, for research purposes, were labelled Good, Average and Weak.

Quantitative data on linguistic constructions was gathered and qualitative data on three developmental trajectories was also used:

- Speech patterns to writing patterns
- Declaration to elaboration
- Translation to transformation

The relationship between speech patterns and writing patterns was marked by certain tendencies. Examples included the following.

Longer words were more frequently present in writing samples placed in the 'good' category. Stronger writing tended to use longer Latinate words (e.g. *environment* rather than *place*, *negative* as opposed to *bad*). This is important because spoken language tends to make use of shorter words, often of Anglo-Saxon origin.

> *'Put simply, one element of linguistic development in writing is learning to make vocabulary choices in writing of words you would be less likely to use in speech.'*

Another linguistic feature, often related to speech patterns, was the use of the word '*like*'. In the 'good' writing category there were no instances of '*like*' being used as a subordinator and only a few cases in the 'average' category.

> *'I could smell the sweet smell of lavender, like I was standing in a herb garden.' (Good)*

> *'It seemed like he had stopped trying to get him and gone away.' (Weak)*

A further linguistic pattern related to oral communication was the overuse of conjunctions in the weaker written work.

An important mark of progress in writing is the writer's ability to manage information appropriately with the reader in mind, thereby ensuring clarity – to progress *from declaration to elaboration*. This is not necessarily achieved through the lengthening of sentences. Although other researchers have noted the correlation between linguistic development and lengthened sentences, Myhill's study found that sentence length per se was not of any developmental significance. What was developmentally significant was 'the ability to manage complex ideas expressed in long sentences'.

The researchers found that the good pieces of writing used punctuation, coordination and subordination to present ideas clearly. In contrast, the writers of weaker pieces struggled to use these techniques to express ideas and control coherence. Researchers also found that the lack of explanatory or reflective detail in the work of the weaker writers explained the significantly higher frequency of finite verbs in their writing.

Another progression point considered by this research is the movement *from translation to transformation*, from 'knowledge-telling' to 'knowledge-transforming', from putting verbal ideas into linear sentences to transforming verbal ideas into sentences with complex content and rhetorical impact.

The study found that one of the distinctions between the good writing and the weak writing examined was thematic variety. Weaker writers were more likely to begin sentences with the subject as the theme and to repeat this sentence structure throughout their writing, whereas stronger writers used a wide repertoire of thematic constructions.

> *We were off to the beach called Sunny Cove. The wind was blowing in our faces. I set up the tent and looked around. I was a bit scared but it was quite fun. (Weak)*

> *When I was young, I was like a mouse. Not just because I was small, but because I didn't stop moving. My head was like a fairground. The big wheel was spinning in my brain. Something always told me that I had to go get up and run somewhere, and that is what I always did. (Good)*

The flatness of the first excerpt contrasts markedly with the rhythmic quality of the second. Also of note is that the first piece is made up of sentences fairly uniform in length, whereas they vary in length in the second.

Myhill sees progress as movement along the three trajectories described above. While environmental factors impact heavily on progress, she describes teachers as responsible for opening

learners' eyes to the design options available to them – linguistic, rhetorical impact and the communication of meaning – rather than teaching grammar per se.

Reading

Duke, N. K. & Pearson, P. D. (2008/2009) Effective Practices for Developing Reading Comprehension, Journal of Education, 189:1/2, 107-122

This source is based on prior educational research evidence that showed that learners' reading comprehension can be improved, thereby enabling learners to progress. The authors identify the known behaviours of good readers and ask whether it is possible to teach learners to engage in these productive behaviours. Although this report focuses on the pedagogy of moving learners on, it also describes the skills, knowledge and dispositions learners need to acquire in order to progress.

The teaching of reading comprehension must be balanced; teachers need to give explicit instruction on the strategies learners need to employ and the time to read, discuss and write about texts. This mix of teacher and learner led activity provides the correct environment for learner progression and is key to learners moving on.

Duke and Pearson describe learner progress as movement from the teacher taking the majority of the responsibility for the learning of a strategy to the learner taking responsibility and employing the strategy independently. The move from learner dependence to learner independence is described over five phases (see *Figure 10*):

- *Explicit instruction*: learner is introduced to the strategy, told what it is and what they need to do.
- *Modelling*: teacher models the strategy in action, talking about what he/she is doing, how he/she is able to do this.
- *Collaborative use of the strategy*: earners are asked to use the strategy as part of a whole class/group activity.
- *Guided practice*: instruction followed by independent group work.
- *Independent use*: use of the strategy independently.

Duke and Pearson argue that creating 'a comprehension instruction environment' has a great impact on learner progress. Children develop their comprehension abilities partly through independent reading, but mainly through learning about enabling strategies and then practising them until they can use them independently. Progression is implicitly linear as learners are introduced to these strategies and at its optimum when they are able to move from deploying single strategies to using a combination of strategies, termed by the authors comprehension routines, independently.

The report is clear that progress in reading comprehension is dependent on the development of learners' skills, knowledge and behaviours. These are taught and modelled by teachers until they are acquired or become habitual in learners.

Figure 10

Figure 10.1. Gradual release of responsibility.

As one moves down the diagonal from upper left to lower right, students assume more, and teachers less, responsibility for task completion. There are three regions of responsibility: primarily teacher in the upper left corner, primarily student in the lower right, and shared responsibility in the center. (This figure is adapted with permission from Pearson and Gallagher [1983]; the asterisked terms are borrowed from Au & Raphael [1998].)

Primarily Teacher

Modeling*

Guided Practice

Direct Instruction*

Region of Shared Responsibility

Scaffolding*

Participating*

Facilitating*

Primarily Student

Percent of Task Responsibility Assumed by the Teacher

Percent of Task Responsibility Assumed by the Student

Reading and Writing

Wyse, D., Jones, R., Bradford, H. & Wolpert, M. A. (2013) Teaching English Language and Literacy. (3rd edition) London: Routledge

Wyse *et al.* present a series of milestones based on a number of sources:

- review of in-depth single child case studies
- patterns in larger groups of children (such as First Steps progression statements, from Australia
- Centre for Literacy in Primary Education (CLPE) development statements
- larger studies of particular areas e.g. the development of grammatical knowledge.

The milestones describe skills, knowledge, behaviours and dispositions exhibited by children in their reading and writing at ages four, seven and 11. They suggest ways in which teachers can build on what learners can do and how they can help move them on through support and challenge: e.g.

- at age seven, children are observed reading longer texts but also enjoy returning to favourite picture books; the advice to teachers is to provide access to books with more text and fewer pictures.
- at age seven, learners, when writing, have largely developed their use of punctuation for learning; the advice to teachers is to help them organise their writing and to continue to check for capital letters and full stops.

Children build upon skills and knowledge learned at four which become increasingly more sophisticated as learners move through primary school. For example, reading aloud:

- needs other people to help with reading aloud (age 4)
- uses expression when reading aloud (age 7)
- varies pace, pitch and expression when reading aloud and varies for performance purposes (age 11)

However, new behaviours are observed as the learner becomes more mature and new skills and knowledge is learned and deployed.

Centre for Literacy in Primary Education (CLPE) (2016) Reading and Writing Scales. Philadelphia: Consortium for Policy Research in Education (CPRE) Research Reports [retrieved from https://www.clpe.org.uk/library-and-resources/reading-and-writing-scales*]*

The Reading and Writing Scales form a comprehensive progression framework devised by a task group of staff from the CLPE, UKLA, NAAE and NATE. The scales are based on a set of key principles derived from research evidence, which is likely to assist in the development of the Languages, Literacy and Communication progression framework.

The Reading and Writing Scales are a distillation of the complex and individual journeys learners typically take towards becoming literate. They are designed for use in primary schools, but are not age specific and the upper end of the scales would be relevant to many lower and middle secondary school pupils. The authors recognise explicitly that older early stage readers and writers will undertake a different journey to their younger counterparts.

The Scales consist of descriptions of achievement which are entirely progressive. They describe learners' journey through eight progressive stages, not age-related, from Beginning Reader/Writer to Mature Independent Reader/Writer. At each stage the statement on the learner's behaviour and what they can do clearly describes or implies what matters for progression. Each of the scales describes the behaviours learners develop as they move towards becoming independent readers and writers. The authors claim that the descriptions are empirically validated by the range of research referred to and do represent real learning behaviours as pupils progress in Reading/Writing. The early stages chart learners' mastery of the tools of reading and writing (e.g. decoding, spelling and grammar). As they move closer to independence, early skills are consolidated at the same time as new skills and knowledge are being acquired. The authors are alert to the impact of the environment on progression.

The Scales can contribute effectively to assessment for learning, as well as enabling teachers (and pupils) to record and report at particular points on the stage of learning each pupil is at. The documentation also provides much helpful pedagogical guidance. The role of parents in modelling and showing that reading and writing are valued in a wide range of real life situations is recognised.

The Scales and the associated guidance are derived from and supported by large amounts of significant research about what matters in language development. Key points emerging from the research (and many research references) are listed as part of the material surrounding the learning stage descriptors.

Although the authors describe the stages of the scales as 'observed behaviours', they include description of the knowledge, skills and dispositions learners deploy and display. For example, at various stages along the Writing Scale the writer is described as:

- increasingly confident
- showing awareness
- willing to take risks
- exploring
- creating.

There are also descriptions of what learners do – descriptions of their skills and knowledge: 'use sentence punctuation more consistently', 'draw on a range of effective strategies' and 'use standard spelling consistently'.

In the descriptors there is explicit recognition that learning to read and learning to write – and indeed development of oral abilities – are interdependent and that making links across various aspects of language work helps progression. The descriptions are presented in prose, not in a format which might encourage 'ticking boxes': they incorporate a large number of factors that matter in the process of reading or writing, which are presented as parts of the complexity of that process, not as separately learnable knowledge and skills. The Scales thus emphasise the idea that the important constituent elements in reading and writing should be learned, developed and assessed in the context of actual communicative tasks/activities.

Oral Language

Mercer, N., Warwick, P. & Ahmed, A. (2014) The Cambridge Oracy Assessment Project [retrieved from https://www.educ.cam.ac.uk/research/projects/oracytoolkit/oracyskillsframework/*]*

The Cambridge Oracy Assessment Toolkit was developed by staff in the Faculty of Education of the University of Cambridge. The tool is designed for use with learners aged 11-12 and comprises a set of initial tasks to be undertaken at the start of the school year, Assessment for Learning tasks that are curriculum embedded and can be used throughout the year, and a series of end of year tasks.

The tool was developed in response to the recognition that education should afford learners the opportunity to use language for seeking, sharing and constructing knowledge; solve problems collaboratively; develop the skills needed to communicate clearly; and, be able to make clear presentations. It addresses the lack of systematic programmes which offer learners explicit guidance and understanding of the criteria by which their performances are evaluated.

The toolkit is underpinned by an oracy skills framework and specifies the skills that learners need to be effective communicators and speakers. These are grouped under the following categories:

- physical
- linguistic
- cognitive
- social and emotional.

Under each of these categories there are specific skills e.g. under linguistic, there are four sub-headings which, in some cases, are broken down further:

- vocabulary
- language variety
- structure
- rhetorical techniques.

Given the sparsity of research and work in this area, this toolkit and the underpinning oracy framework will be of interest to those building the Languages, Literacy and Communication progression framework.

Issues related to conceptualising progression within multilingual societies and classrooms

There have been numerous critiques of 'traditional' policies of assessment of progression in language learning, particularly within multilingual societies and classrooms, contexts which Hult (2010) argues may be illumined by the application of complexity theory. Critiques of policy have sometimes come from within the accepted paradigm of modern language learning, e.g. Hunt (2009) criticises National Curriculum policy in England for not clearly articulating progression in the following terms:

> *'Progression refers to a broadening of contexts and content; a development of each of the four skills of listening, speaking, reading and writing as well as language learning skills; a deepening acquisition of linguistic knowledge and ability; and an expansion of cultural awareness'* (p. 206)

In contrast, Mitchell (2003) is one of those authors who have noted with increasing urgency that traditional models of progression in modern languages have

> *'locked thinking about learning outcomes for languages into an outmoded 'four skills' pattern, which predates the communicative era and is in some ways in opposition to it. In performing real world tasks, skills are typically integrated for the achievement of some non-language goal, e.g. we commonly read in order to write, we listen in order to speak etc.'* (p. 16)

Such 'outmoded' approaches are seen as failing to recognise patterns of cognitive development, being applicable only to learning in highly controlled conditions, ignoring the capabilities which children bring to the classroom and, indeed, setting ceilings on achievement. Mitchell recognises specifically, that real progression in language learning will employ the model of non-linear progression developed in *Successful Futures.*

> *'Research into language development has clearly shown that L2 learning is a much more complex and recursive process, with multiple interconnections and backslidings, and complex tradeoffs between advances in accuracy, fluency and complexity.'* (Mitchell 2003 p. 16)

Lee & Benati (2007) clearly illustrate a research informed but limited model of pedagogy of the type criticised by Mitchell. The authors make use of detailed analyses of second language development presented by VanPatten (1996): they summarise (p. 3) Van Patten's model of the principles which underpin how learners identify

> *'which features of the input [they] attend to, which they ignore, and whether learners direct their attention in a principles way (VanPatten 1996 pp. 13-53)*

In brief this model recognises three fundamental principles:

- *'learners process input for meaning before they process it for form*
- *for learners to process form that is not meaningful, they must be able to process informational or communicative content at no (or little) cost to attention*
- *learners possess a default strategy that assigns the role of agent to the first noun (phrase) they encounter in a sentence'* (Lee and Benati 2007 p.3)

Each of these principles is then split into a small number of sub-principles. From this model, Lee & Benati develop a pedagogy which treats these principles and sub-principles as means of organising an inflexible form of linear progression in which each language feature is developed independently of others and which ascribes to learners a role as largely passive recipients of input planned or identified by the teacher to take them through these discrete steps sequentially.

Turnbull (2017, p. 2) describes these established approaches, in both foreign language learning and bilingual education as reflecting a 'monolingual perspective' which has influenced both pedagogy and assessment:

> *'very rarely do FL assessment measures acknowledge or take into consideration the underlying goal of FL education; that is, to develop bilingualism in some form, or to further promote the emergent bilingualism learners already possess.'*

He argues that bilingual education has made considerable advances in recognising the capabilities that children bring to the classroom and that translanguaging as introduced in Welsh research is

becoming a feature of learning in bilingual classrooms. This should now be extended to foreign language learning. Lewis *et al*. (2012) pursue a similar theme as they analyse the ways in which the concept of translanguaging has been developed both in Wales and in other contexts. Grenfell & Harris (2017) argue, from a series of research activities, that second language teaching must make use of strategies (affective, memorisation, cognitive) which empower learners, not only as a means of developing facility in the use of the language and not only as a basis of lifelong learning, but also as educational goals which themselves embody important aspects of what it means to use a second language effectively. The implications of these arguments for the assessment of progression may be considerable, requiring changes not only in practice but in underlying philosophies of language learning. Performance based assessment in real life situations using multimodal and multilingual approaches are likely to require different statements of progression than those based on traditional models of language acquisition.

Gardner & Wagner (2004) provide a range of examples of the ways in which second language learners make use of social awareness, context, topic and non-verbal cues to understand others' meaning, express their own meaning and develop their vocabulary and accuracy in the use of a target language. Jørgensen (2012) takes this theme further, arguing that 'languages' are sociocultural or, indeed, ideological constructions which do not represent the behaviour and experiences of language users, including the behaviour and experiences of young people. The examples provided of young people's language use outside of school demonstrate the extent to which they make use of a range of languages; code switching is not determined simply by genre, audience or purpose but can take place within one conversation and indeed within individual utterances within a conversation. There is evidence that features of one language have been influenced by those of another. Jørgensen provides evidence of the extent to which young people were able to articulate descriptions of their language use. It is likely that such developments are also taking place within the British Isles among speakers both of minoritised languages and of community languages (see e.g. Hult, 2010, O'Toole & Hickey, 2017). Kirsch (2017) demonstrates how translanguaging can be used effectively by young children to support their learning of languages. This is in the context of Luxembourg, an officially trilingual country which has traditionally used a monoglossic approach to language learning where languages are taught as discrete subjects and written language is privileged. In this there now live many children who employ yet another language at home or in their local community. Established practices of assessment of progression in language learning may not fully recognise the value of such language use within the classroom or community.

Datta (2000) provides a range of examples from practice (in this case of young children in English primary schools) of the ways in which children's first languages can be used effectively, often on the initiative of young children, to stimulate and support their learning and progression in the use of the language of education (in this case, English). In addition to recognising children's linguistic and cognitive abilities, Datta argues strongly that teachers must in their classrooms recognise and respect in practical ways the languages the children bring to schools and the cultures to which these languages are central. Cenoz & Gorter (2016) point out that multi-lingualism is an important point of departure for the work of many schools, where multiple languages among students are a fact of life. The authors argue that a multilingual focus has pedagogical implications, such as working across languages in learning, using different languages for input and student output, scaffolding when teaching content in L2 or L3 and analysing cognate words/expressions. It is then desirable that

assessment be changed to align with pedagogy, e.g. using a multi-lingual approach to evaluation of learners' comprehension of content, scoring taking account of different languages, or 'translanguaging' in assessment of writing.

Related to this is the development and use of Content and Language Integrated Learning (CLIL). Ruiz de Zarrobe & Cenoz (2015) in surveying the field recognise that this term (and related terms) cover a number of different approaches, but all of which share a recognition that language development, concept development and the development of thinking skills are interrelated and, indeed, inseparable. Pérez Cañado & Lancaster (2017) are among authors who report the effects of CLIL on language learning, in this case oracy: however, their assessment appears to rely on decontextualised tests which were matched to the language textbooks used by the learners: an approach which would not appear to recognise fully the affordances of this model of pedagogy. Meyer *et al.*(2015) develop an approach to assessment which aligns more clearly with this pedagogical approach: they argue that development of content (in this case science) and development of language are mutually interdependent and that assessment of progression operates along two axes, the continua of which include sub-categories, as illustrated in *Figure 11* below.

This model requires:

> *'a focus on the active construct of meaning-making rather than the rather passive notion of content knowledge as a more static-defined state… Making connections which evidence meaning instead of reaffirming prior knowledge contextualised at a surface level requires learners to use language in different ways. For example, explaining cause and effect or temporal sequence relies on appropriate use of language which can be understood by others and self according to different stages of development… The model provides both teachers and students with a way to 'visually map' out their progression in literacies: learners' texts can be mapped onto the model to trace their literacy development over time'* (p. 50)

Figure 11: The Graz Group model of pluriliteracies development (reproduced from Meyer et al. (2015) p. 49

Burgoyne *et al.* (2011) and Thompson (2006) provide further evidence of the interlinked nature of progression in language and the development of content and cognitive capabilities from more narrowly focused research into detailed aspects of language development: the development of vocabulary and the use of authentic discussion. The implications of such findings for the development of learning progression frameworks may merit consideration.

Shrubshall (1997), from a different standpoint, challenges approaches to assessment of progression in language which treat development of different modes and genres as largely independent; narrative is here seen as the basis for much language development, both oral and written. The comparison of achievement of monolingual and bilingual children in this report employs linguistic analysis not in terms of accuracy of grammar and syntax or of variety of sentence structure but rather in terms of narrative and rhetorical structures, both fine grained and coarse grained. The links between language development and development of other aspects of learning is also a feature here.

Jones (2012), building on the model of the Council of Europe's European Languages Portfolio (ELP), argues for the value of portfolios in recording achievement in language: using a portfolio is both motivating and allows learners and others to recognise the interconnections *which 'clearly take place across the whole of a child's language learning across the curriculum, in English, heritage languages, [foreign languages], subject vocabularies and discourses'* (p. 412). However, Jones does not state explicitly how progression would be determined from the evidence included within a

portfolio. Ashton (2014) following a critical review of summative self-assessment approaches in language learning develops a set of 'functional frameworks' to support self-assessment: the items within these frameworks are derived from existing sets of 'can-do' statements, including the ELP, many of which are aligned to the CEFR, and thus may display both the strengths and weaknesses of these sets of statements.

The assessment of languages and development of learning progression frameworks will be carried out in a context which is significantly different from those previous contexts which adopted approaches which were based on the learning and assessment of discrete language knowledge and skills, which privileged one language at the expense of others and which did not recognise the extent or value to learning of the linguistic capabilities learners bring to the classroom.

A Fundamental Issue: Does the Research Support the Idea of a Progression Framework for Literacy and Language Development?

Mosher, F. & Heritage, M. (2017) A Hitchhiker's Guide to Thinking about Literacy, Learning Progressions, and Instruction. CPRE Research Report #RR 2017/2. Philadelphia: Consortium for Policy Research in Education [retrieved from http://repository.upenn.edu/cpre_researchreports/97*]*

Mosher and Heritage's recent article deserves more detailed analysis than it has been possible to give it here. However, it seems important to include in this report the most significant conclusion that Mosher and Heritage reach. They report that there is certainly much research evidence about the nature of language development, which involves expressing ever more complex and sophisticated meanings as one becomes more familiar with the various means and systems by which language makes such expression possible. These means include the alphabetic system, grapho-phonemic decoding, words representing things and ideas, grammar, text structure and organisation, characteristics of genres. This process of development is highly complex and certainly does not occur in a linear fashion. Mosher and Heritage (as well as the researchers whose work has been summarised earlier in this report) see it happening most effectively in contextual use of language, rather than through separate exercises on aspects of the system. However, Mosher and Heritage argue that there is no compelling research evidence about the *order* in which successful learners become familiar with the various aspects of language and therefore, at least at present, no clear basis for writing detailed descriptions of progression in a way that could be used to specify next steps in learning at any particular point. They conclude therefore that it is probably more realistic and wiser, given what we know about the complexity of language development processes, simply to aim to design the language curriculum so that key aspects are met in a sensible specified order:

> *A well-defined, ordered curriculum can function, and provide many of the same benefits, as have been claimed for the stronger hypothesis of learning progressions. The steps in the curriculum along with the activities and materials, and the associated assessments or evidence from students' work, provide a definition of how learning is expected to proceed and how to tell whether it in fact is going as expected, along with pointers to what may be the problem if it is not. If the curriculum is designed to support individualization by defining the order or orders of learning experiences but allowing the pace to vary as needed, as progressions would, it can honestly represent having the same expectations for all students, while accepting the likelihood that they may differ in how long they will take to meet them.'*

Some Key Points for Consideration

In addressing the questions proposed for the Languages, Literacy and Communication AoLE in the Review of Frameworks, several significant points from the research review should be kept in mind. These include:

- The emphasis in Marshall *et al.* (2018) on the need to ensure curricular and pedagogical balance across both development of learners' ideas and thinking and development of awareness of the nature and potential of language.
- Christie's view that the quality of writing improves across *developmental* stages and that the learner's development is impacted upon by school experiences and the demands of school work across the curriculum.
- Myhill's focus on *making meaning* and on patterns of increasing complexity in use of language to do so.
- Duke and Pearson's ideas about the role of teaching in development of comprehension abilities, as learners move from supported to independent interaction with texts.
- The argument of Wyse *et al.* about new reading behaviours emerging from more sophisticated grasp of, and practice with, skills learned earlier.
- The presentation of the CLPE Scales in a form that highlights the complexity of the language development process and avoids the danger of creating a 'tick box' assessment system.
- The recognition in the Cambridge Oracy Programme that development is a matter of both 'pursuit of meaning' to communicate and language awareness and skills to enable the communication of meaning.
- The significant question raised by Mosher and Heritage whether we are capable of creating a real progression framework for Languages, Literacy and Communication which will be relevant to the ways in which all or most learners actually develop.

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 embedded within *Successful Futures*	Summary comment from section 2 reviews
1.	Phases and key stages should be removed in order that progression can be continuous, increasing the potential for higher attainment by minimising transitions.	Evidence from research considered in some reviews supports this principle: if progression steps represent significant 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 *Successful Futures*	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 *Successful Futures*	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 *Successful Futures*	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 pro-active 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

Key Questions

Q1. What purposes do we expect the progression framework to serve?

Examples of Possibilities

A. Provide a broad overview of the journey from beginning learner to expert in this AoLE

B. Provide detailed guidance for planning for teaching and learning

C. Provide descriptions of achievement expected at different ages or stages

D. Provide descriptions of pupils' progress in the learning journey and possible next steps

E. _____

Points to Consider

- Successful Futures suggests that the achievement outcomes should be framed as broad expectations achievable over a period of time. They should be "reference points, providing a road map for each individual child and young person's progress in their learning and not universal expectations of the performance of all children and young people at fixed points" (Donaldson, p. 56)
- Successful Futures recommends that assessment arrangements should give priority to their formative role in teaching and learning (Donaldson, p. 7)
- Maps of progression provide for the teacher a crucial coherent vision, an underlying scheme of progression, which links teaching action to what matters and to *what matters next*. (Black et al 2011)
- Heritage (2008) argues for the importance of learner being aware of longer term goals and the relationship between those and their day to day progress.
- The danger associated with linking descriptions of learning directly to specified ages/ stages is that designers of the framework and, eventually, teachers (and other users of the information) may come to specify expected standards which are not empirically well-founded as real progression steps in the learning journey. (pp 138-145 in *Learning About Progression*).

Q2. How will the progression statements be designed to serve these different purposes?

A. Only broad statements of progression, interpreting these statements is up to individual teachers and schools

B. Sufficiently detailed statements for guiding classroom teaching and learning

C. Both broad statements of progression and more detailed frameworks of progression designed to link together

D. _____

- According to literature, (Black et al 2011; Pellegrino. 2014, 2017), detailed progression is needed to:
    - (a) formulate tasks or tests so that the responses can provide evidence of learning progression
    - (b) formulate helpful comments, tailored to the individual needs of each student
    - (c) give clear guidance on how to improve
- Some countries (e.g. Scotland) provide only broad statements of progression leaving pedagogical decisions open to schools and teachers, whereas others (e.g., Quebec, Canada) provide detailed frameworks as part of their main curricular framework
- According to Successful Futures, the progression steps should "provide a context within which teachers can select teaching and learning approaches that build from one step to the next but that still provide significant freedom to offer engaging experiences that match their children and young people's needs." (Donaldson, p. 67).
- Heritage (2008) "suggests that greater attention should be paid to the different levels of specificity used to articulate the curriculum" (p. 17, CAMAU report). If too detailed, learning can become a checklist of things to learn. However, learning progressions vary greatly from a unit of work to lasting over years.

Q3. If detailed frameworks of progression are included alongside broader statements, where should they be located? *

A. Within the curriculum framework, alongside the broader statements of overall learning aims

B. In associated professional learning material/contexts

C. _____

- Countries differ in the extent to which they provide more detailed progression frameworks and where they are located. For example, British Columbia has quite broad curricular competencies for each learning area, but also provide much more specific sets of standards and expectations, although the latter are in a separate document and are for voluntary use in schools.

* 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

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:
    o 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)?
    o Is progression linear or could children move backwards and forwards?
    o 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?
    o 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?
    o 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.

- 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

Possibilities	Points to Think About

Q1. How do you identify beginning and end points in the journey?

A. Beginning point - The skills/ understandings/ dispositions/ experiences young pupils bring to the classroom

B. End point - What a Welsh citizen should know/be able to do within the AoLE

C. End point – Requirements for transition into different phases of the education system, e.g., higher education, vocational education

D. Beginning point Pupils assessed for their starting point using formative assessment and taken forward from the point they are at.

Points to consider for identifying the journey starting point
- According to Successful Future (p. 53), 'Initial Progression Steps should take full account of guidance on Routes for Learning'
- Black et al. (2011) suggests that you "start from a learner's existing understanding"
- Not all young pupils enter the classroom with the same experiences, meaning some flexibility may be required
- _____

Points to consider for identifying the journey end point
- Elective/non-core subjects in some countries mean pupils leave the system with different types of specialised knowledge
- Identifying an end point as a minimal competency/skill/understanding may not allow all students to see the next step for reaching for their full potential, especially if they reach the highest progression at a young age
- According to Successful Futures (p. 54), the curriculum should enable most children and young people to reach, or go beyond, each Progression Step
- _____

Q2. Do different parts of the journey start at different points?

A. No, all skills, understandings, and/or competencies are represented at every step in the progression framework

B. Yes, some skills, understandings, and/or competencies may begin at later points in the journey or end at earlier points in the journey

C. _____

- Students can increase in knowledge/skills at any point in their learning experience and even young children can develop skills or have experiences that set the basis for future learning.
- Similar to Option B, some country's curricular frameworks (e.g., Quebec) that were reviewed do not introduce certain skills/understandings until later points in the journey and/or do not continue them through the full progression framework
- Other countries that were reviewed repeat the same skill/understanding at multiple steps in order to represent that learning is happening over a longer period of time

Q3. How do you break up the journey in ways that make the best sense for learning, e.g., number of progression points?

A. 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)

B. The number of points may differ across learning depending upon the number of conceptual shifts that mark sophistication/development in the learning journey

C. Descriptions of learning linked to each grade level, similar to standards

D. Descriptions of learning needed to move into different phases of education, e.g., primary, secondary, subject choice

E. _____

- Successful Future recommends Option A (see p. 53). There are also five progression points in the learning continuum in Scotland
- Research on progression appears to align more closely with Option B, in the sense that many of the progression frameworks that were reviewed across AoLEs have no indication of age and range widely in the number of steps they have. On a continuum of learning you may need more, or fewer, points depending upon the skill/understanding.
- Having the same number of points across each skill/understanding may be easier practically in terms of coherence across teachers and schools, but may require a compromise in terms of representing meaningful shifts in each skill/understanding, the latter of which is ideal for assessment for learning
- Many countries tend to follow Option C (e.g., Australia, British Columbia), with some exceptions (e.g., New Zealand has 8 steps/points in the learning journey). However, Option C is critiqued in the literature as it links to grade level expectations (Heritage, 2008).
- _____

Choice and Rationale

Rationale for Choice of Possibilities for Q1
Beginning Point - The teacher needs to use formative assessment to acknowledge what the learner has already achieved/ experienced / dispositions so they can assess the 'readiness' of the learner to continue their journey. (Singapore).
End point – Step achieved / reached towards the Four Core Purposes and the signal for where the next step will be.

Rationale for Choice of Possibilities for Q2
No, all skills, understanding, and/or competencies are represented at every step in the progression framework due to the way maths builds on the previous step. Each step is appropriate to the child's stage of development and introduced through play etc as appropriate. This is true for all 'What Matters' within the Maths and Numeracy AoLE.

Rationale for Choice of Possibilities for Q3
Choose B – Discussion – evidence from practitioners during CAMAU research. We agree.
Point A – Discussion - Why are the ages chosen? 5 allows a child to settle into primary at the end of Reception. 8 acknowledges the infant / junior school situation and allows children to settle in a new school but then 11 when children move from primary to secondary is separating the two stages again. Dislike the clear distinction and not a journey more of a reaching different end points.

Point C – Discussion – Teachers needs guidance children do not need to be labelled and Welsh government label schools.

Point D – Discussion – Different phases of education seperating us too much still. 'Not our problem' idea.

AoLE proposal

Example: The aspect of the learning journey should be structured as... because...
Question 1 How do you identify beginning and end points in the journey?
The group proposes...
The teacher needs to use formative assessment to acknowledge where the learner is at , at the beginning of the journey. This will need to identify what the learner has already achieved/ experienced and the dispositions they have so they can assess the 'readiness' of the learner to continue their journey. (Singapore).
Step achieved / reached at the end of the journey should be measured against what steps the learner has taken towards the Four Core Purposes and the signal for where the next step will be.

Question 2 Do different parts of the journey start at different points?
The group proposes..
All skills, understanding, and/or competencies are represented at every step in the progression framework due to the way maths builds on the previous step. Each step is appropriate to the child's stage of development eg introduced through play etc as appropriate. This is true for all 'What Matters' within the Maths and Numeracy AoLE.

Question 3 How do you break up the journey in ways that make the best sense for learning eg number of progression points?
The group proposes.....
The number of points may differ across learning depending upon the number of conceptual shifts that mark sophistication/development in the learning journey. This is evidenced from practitioners during CAMAU research. This is continous formative and summative assessment rather than just a point at a certain age for each child.

We dislike the clear distinction by age as not a journey more of a reaching different end points.
Teachers needs guidance for stages of development. Children do not need to be labelled and Welsh government then measure or label schools at artificial points of time. Support should be given to learners and schools without publicly shaming.

If we only assess different phases of education it is still separating primary and secondary schools too much and becomes the 'Not our problem' idea.

Implications for other decisions to be made about progression:

Expressive Arts: Progression as Interdisciplinary or Disciplinary

Progression as Interdisciplinary or Disciplinary as the Journey Develops

Key Questions

Q1. To what extent should progression be mapped in interdisciplinary terms (e.g., for the AoLE) or subject specific within the AoLE?

Possibilities

A. Fully interdisciplinary within the AoLE

B. Subject-specific progression frameworks, e.g. learning progressions described for each subject in the AoLE

C. Changing from interdisciplinary within the AoLE to more subject-specific as students transition to later phases of schooling

D. Changing from subject-specific to more interdisciplinary within the AoLE as students transition to later phases of schooling

E. Progressions are described simultaneously for the area and for the specific subjects, i.e., AoLE-wide progression steps alongside disciplinary progression steps

- Fully interdisciplinary within the AOLE whilst providing opportunities to develop greater disciplinary knowledge and skills (post 14)

Points to Consider

- Some countries reviewed (e.g. Scotland Humanities) have learning area that remains throughout schooling ▲
- Other countries (e.g. Australia, Alberta, and Northern Ireland Humanities) have separate elementary and secondary curriculum ◇
- SF says that there is a trend towards emphasising the ability to apply learning across subjects and a disposition to do so effectively (p23). ◯
- SF recommends that the curriculum 3-16 should be organised into Areas of Learning and Experience and have an identifiable core of disciplinary or instrumental knowledge (p.38). Progression in each AoLE should be based on a continuum of learning that flows from when a child enters education through to the end of statutory schooling at 16 and beyond (p.53) ◇
- Having separate curricula and/or assessment guidelines for different stages of schooling may have implications for learners' transition into secondary school and for the extent to which the separate curricula complement one another ▲
- 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. ▲

Progression as Interdisciplinary or Disciplinary as the Journey Develops

Choice and Rationale

Rationale for choice of possibility

- A core progression that stays all the way through however there needs to be a modular system post 14 in order to allow students to choose according to their particular interest and/or talent.
- Could there be complimentary vocational pathways – EA and specialist modules?
- All children will be studying EA beyond 14 – but only some will specialize in particular disciplines?
- Schools will need examples i.e lead creative school case studies
- The creative processes identified in the three pillars are interdisciplinary
- The curriculum 3-16 should be organized into Areas of Learning and Experience and have an identifiable core of disciplinary or instrumental knowledge (SF p.38).
- Progression in each AoLE should be based on a continuum of learning that flows from when a child enters education through to the end of statutory schooling at 16 and beyond (SF p.53).

AoLE Proposal

AoLE proposal

Example: The aspect of the learning journey should be structured as… because..

The learning journey should be fully interdisciplinary within the EA whilst providing opportunities to develop greater disciplinary knowledge and skills (post 14) in order to provide opportunity to apply learning across disciplines. This will be based on a continuum of learning that flows from when the child enters education to the end of statutory schooling at 16. Post 14 there should be opportunities for pupils to develop more disciplinary knowledge, skills and understanding through a modular approach.

Progression comes from gradual use and re-use of known skills and could also involve a qualitative jump. It is not a linear process, different learners will progress in markedly different ways as they experience EA activities. The learning environment and the quality of teaching are important factors in facilitating progression. Qualitative and contextualised descriptive approaches to assesing acheivments and progression are key factors in this AOLE.

Implications for other decisions to be made about progression:

Science and Technology: *Purposes of Progression Framework*

Purposes of Progression Framework

Key Questions | **Examples of Possibilities** | **Points to Consider**

Q1. What purposes do we expect the progression framework to serve?

A. Provide a broad overview of the journey from beginning learner to expert in this AoLE

B. Provide detailed guidance for planning for teaching and learning

C. Provide descriptions of achievement expected at different ages or stages

D. Provide descriptions of pupils' progress in the learning journey and possible next steps

E. _____

Points to Consider:
- Successful Futures suggests that the achievement outcomes should be framed as broad expectations achievable over a period of time. They should be "reference points, providing a road map for each individual child and young person's progress in their learning and not universal expectations of the performance of all children and young people at fixed points" (Donaldson, p. 56)
- Successful Futures recommends that assessment arrangements should give priority to their formative role in teaching and learning (Donaldson, p. 77)
- Maps of progression provide for the teacher a crucial coherent vision, an underlying scheme of progression, which links teaching action to what matters and to *what matters next*. (Black et al 2011)
- Heritage (2008) argues for the importance of learner being aware of longer term goals and the relationship between those and their day to day progress.
- The danger associated with linking descriptions of learning directly to specified ages/ stages is that designers of the framework and, eventually, teachers (and other users of the information) may come to specify expected standards which are not empirically well-founded as real progression steps in the learning journey. (pp 138-145 in *Learning About Progression*).

Views of AoLE Group?

Q2. How will the progression statements be designed to serve these different purposes?

A. Only broad statements of progression, interpreting these statements is up to individual teachers and schools

B. Sufficiently detailed statements for guiding classroom teaching and learning

C. Both broad statements of progression and more detailed frameworks of progression designed to link together

D. _____

Points to Consider:
- According to literature, (Black et al 2011; Pellegrino. 2014, 2017), detailed progression is needed to:
  - (a) formulate tasks or tests so that the responses can provide evidence of learning progression
  - (b) formulate helpful comments, tailored to the individual needs of each student
  - (c) give clear guidance on how to improve
- Some countries (e.g. Scotland) provide only broad statements of progression leaving pedagogical decisions open to schools and teachers, whereas others (e.g., Quebec, Canada) provide detailed frameworks as part of their main curricular framework
- According to Successful Futures, the progression steps should "provide a context within which teachers can select teaching and learning approaches that build from one step to the next but that still provide significant freedom to offer engaging experiences that match their children and young people's needs." (Donaldson, p. 67).
- Heritage (2008) "suggests that greater attention should be paid to the different levels of specificity used to articulate the curriculum" (p. 17, CAMAU report). If too detailed, learning can become a checklist of things to learn. However, learning progressions vary greatly from a unit of work to lasting over years.

Views of AoLE Group?

Q3. If detailed frameworks of progression are included alongside broader statements, where should they be located? *

A. Within the curriculum framework, alongside the broader statements of overall learning aims

B. In associated professional learning material and/or contexts

C. _____

Points to Consider:
- Countries differ in the extent to which they provide more detailed progression frameworks and where they are located. For example, British Columbia has quite broad curricular competencies for each learning area, but also provide much more specific sets of standards and expectations, although the latter are in a separate document and are for voluntary use in schools.
- Some frameworks (eg, in New Zealand and, in UK, the CLPE Scales for Reading and Writing) exemplify how detailed description of progression, exemplification of it through student work and pedagogical guidance on appropriate next steps can be built into professional learning material/activities.

Views of AoLE Group?

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

Purposes of Progression Framework

Rationale | **AoLE Proposal**

Rationale for choice of possibility for Q1

A – too vague, will lead to inconsistencies between / within schools; however "aspirational" for the profession; only realisable if assessment / accountability doesn't mandate set progress; just marker points for the end of the journey; requires "milestones"

B -- too restrictive / prescriptive; doesn't allow customisation, prevents localised SOWs, doesn't encourage flexibility; does not support 4 purposes; would remove creativity

C – links to age / stage potentially hold back most able and/or be unattainable for least able / ALN; too similar to what we have now; doesn't reflect the learners journey; markers are a good thing (not age though)

D – Allows individualised progress regardless of ability; most relevant to the aims of the new curriculum; any "next steps" need to be carefully crafted; markers needed for end of "stage" points

Other – Combination of CD (age or stage) with key "milestones" particularly at Primary to secondary transition
-- Pen portraits of "most" learners should be... created for each stage

Rationale for choice of possibility for Q2

A – Desirable (is the system mature enough for this?); time would be an issue here; required professional development and time; too broad; practically, will lead to inconsistency; broad statements + more detail about short term, medium and long term;

B – Useful for ensuring consistency across the system; too prescriptive; narrows experiences; "sufficient" is difficult to define (NQT, non-specialists, struggling teachers)

C – Broad statements open to interpretation; potential inconsistencies;

D – Australian model;

Other – Needs to be in one document; long term aims, plus medium term detail
-- Need to ensure does not become "tick box"
-- Big Ideas + Progression framework combined

Rationale for choice of possibility for Q3

one document for teachers
Both A and B are needed. Single curriculum AoLE document should be used as part of professional learning

Other

-- Needs additional (external) exemplification
-- Needs to be one document
-- Leadership documents needs to be consistent (specification of time)
-- Need paper and flexible electronic versions

AoLE Proposal

Example: The aspect of the learning journey should be structured as... because...

"The aspects of a learning journey should be structured as a single, integrated document in support of an AOLE. Each "What matters" statement should be combined with broad expressions of pupil progress and reference to key achievements at set points along that journey."

The AOLE feels it is vital to avoid under specification of progress details and guidance as this will not provide the structure necessary to ensure that all teaching and learning is suitably aspirational and rigorous. Whilst the AOLE is conscious of key pedagogies it feels that providing detailed guidance for teaching and planning will too intimately link the "curriculum" with methods of delivery, and as such reduce the flexibility in the classroom. The groups feels that in addition to the progression journey and in line with Successful Futures, "reference points" are essential (suggest Primary > Secondary Transition) to ensure suitable progress for all learners, regardless of their place within the education system.

The AOLE feels the statements of progression need to be broad enough, yet sufficiently detailed (Black et al) to meet the needs of teacher subsidiary and the "4 purposes", whilst maintaining consistency and rigour thorough the system – without reducing progression to a "checklist"

The AOLE feels it is unnecessary to produce an additional, detailed framework and that all statements of progression are embedded within each What Matters statement.

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.