

## Impact case study (REF3)

<b>Institution:</b> University of Glasgow (UofG)		
<b>Unit of Assessment:</b> UoA 23 Education		
<b>Title of case study:</b> Shaping Educational Assessment Policy in Small Nations and States		
<b>Period when the underpinning research was undertaken:</b> 2001–2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b> (1) Louise Hayward; (2) Kara Makara Fuller; (3) David Morrison-Love; (4) Srabani Maitra; (5) Ernest Spencer; (6) George MacBride; (7) Peter Donaldson; (8) Francisco Valdera-Gil; (9) Georgina Wardle	<b>Role(s) (e.g. job title):</b> (1) Professor; (2) Lecturer; (3) Lecturer; (4) Senior Lecturer; (5) Honorary Senior Research Fellow; (6) Honorary Senior Research Fellow; (7) Lecturer; (8) Lecturer; (9) Senior Lecturer	<b>Period(s) employed by submitting HEI:</b> (1) 1999–present; (2) 2014–present; (3) 2012–present; (4) 2017–present; (5) 2004–present; (6) 2006–present; (7) 2017–present; (8) 2016–present; (9) 2003–present
<b>Period when the claimed impact occurred:</b> 2014–2020		
<b>Is this case study continued from a case study submitted in 2014?</b> No		
<b>1. Summary of the impact</b> Education systems internationally have found difficulty in developing and putting into practice assessment policy that is well-aligned with curriculum and pedagogy and embedded in research and practice. Scotland developed an assessment programme, Assessment for Learning (AfL), regarded by Ministers as successful in changing practices in schools across Scotland. UofG research informed this programme from which developed: (1) an empirically-based model for change; (2) a better understanding of learning progression to strengthen the impact of AfL on practice. From 2014 onwards, UofG assessment research has: (i) shaped policy and practice in Scotland (e.g. the development of the National Improvement Framework); (ii) provided evidence to inform national policy debate; (iii) underpinned the co-design of a new curriculum in Wales; (iv) informed policy debate and enactment in Slovenia, Ireland and Norway.		
<b>2. Underpinning research</b>		
<b>2.1. Change with Integrity</b> Scotland was one of the first countries to initiate a research-informed, nationwide assessment system: Assessment for Learning (AfL). It was designed to be research-informed, well-aligned with curriculum and pedagogy, and with the intention to make a <i>real</i> difference to practice in classrooms. In this context, UofG research addressed policy enactment—what matters to secure alignment of policy, practice and research to ensure impact that is sustainable. Empirical studies undertaken between 2003–2008 led to a new model of change, ‘Change with Integrity’ [3.5], which found that to ensure impact is deep and sustainable, policy design must be informed by:		
<ul style="list-style-type: none"> <li>• Educational integrity (a clear focus on improving learning);</li> <li>• Personal and professional integrity (participants have a significant role in the construction of the programme, rather than designated passive recipients of policy directives);</li> <li>• Systemic integrity (policy coherence across the system and in development throughout the education system—national, local, school).</li> </ul>		
This model was further refined by Hayward, MacBride & Spencer [3.2, 3.3, 3.4], who investigated why tensions arise in policy implementation at the level of the nation; identified means of avoiding the negative washback effects inherent in accountability-focused national assessment systems; and presented a model in which assessment is reconceptualised as learning. A former Minister of Education recognised the world-leading nature of this integrated work across policy, research and practice as a ‘quiet revolution’ in Scottish education [3.5]. However, UofG research also identified gaps in the assessment model: in particular, an inadequate conceptualisation of progression in learning that was fundamental to effective practice in AfL.		
<b>2.2. Understanding progression in learning</b> The CAMAU research project took forward the earlier UofG research in Scotland, which established the principles underpinning sustainable educational development, and investigated		

how progression (the journey from beginner to expert) might be designed and developed to improve the effectiveness of AfL in practice.

In 2017, CAMAU was commissioned by the Welsh Government and developed in partnership by the UofG and University of Wales Trinity Saint David (UWTSD). In accord with UofG 'Change with Integrity' principles, the research project was designed in partnership between Government and Universities. The project supported researchers, teachers and policymakers in collaboratively developing progression frameworks for the new 3–16 curriculum in Wales [3.1].

Hayward led a team including Makara and Morrison-Love which analysed and synthesised evidence from research, policy and practice; progression as conceptualised in Welsh policy; structures and descriptions of progression in other countries' curriculum frameworks; research evidence of progression in general and in different curricular areas; and Welsh teachers' insights into progression from professional experience [3.6]. **A key research finding** from this body of work is that progression is under-conceptualised internationally in curriculum and assessment policy models. The research built a strong evidence base to inform a conceptualisation of progression and the development of models of progression in learning in all areas of the curriculum.

### 2.3. Aligning research, policy and practice more effectively

The CAMAU project built on its findings and investigated new approaches to support the co-construction of progression frameworks with policymakers and practitioners [3.1.1, 3.1.2]. Aware of the research evidence that traditional means of presenting research to policymakers and practitioners was rarely successful [3.2, 3.4], the UofG researchers explored and developed alternative ways of mediating research to policymakers and practitioners.

In addition to the presentation of research findings in a range of formats [3.1.3], UofG researchers designed 'Decision Trees', an innovative approach to ensure a direct link between research, policy and practice in developing progression. Each Decision Tree addressed a key issue, offered initial questions for practitioner working groups to address, linked research and policy evidence to inform responses to each question, and encouraged practitioners to add insights from their professional experience. Thus, as the working groups identified key characteristics of the developing progression frameworks, the Decision Trees brought together the findings of research, the grounded experience of teachers, and policy aims.

### 3. References to the research

- 3.1 Hayward, L\*, Jones, D‡, Waters, J‡, Makara, K\*, Morrison-Love, D\*, Spencer, E\*, Barnes, J‡, Davies, H‡, Hughes, S‡, Jones, S‡, Nelson, S‡, Ryder, N‡, Stacey, S‡, Wallis, R‡, Baxter, J‡, MacBride, G\*, Bendall, R‡, Brooks, S‡, Cooze, A‡, Davies, L‡, Denny, H‡, Donaldson, P\*, Hughes S‡, Lewis, I‡, Lloyd, L‡, Maitra, S\*, Morgan, C‡, Pellew James, S‡, Samuel-Thomas, S‡, Sharpling, E‡, Southern, A‡, Stewart, S‡, Valdera-Gil, F\*, Wardle, G\* (2018) *CAMAU Research Report to Welsh Government (University of Glasgow and University of Wales Trinity St David)*. (\* = UofG; ‡ = UWTSD; † = WG).
- 3.1.1 Main Research Report
- 3.1.2 Research Reports on individual areas of the curriculum
- 3.1.3 From Ideas to Action: research in policy and practice
- 3.1.4 Research Report 2 - So Far So Good
- 3.2 Hayward, L. (2015) [Assessment is learning: the preposition vanishes. \*Assessment in Education: Principles, Policy and Practice\*, 22\(1\), pp. 27-43.](#) (doi:[10.1080/0969594X.2014.984656](https://doi.org/10.1080/0969594X.2014.984656))
- 3.3 Hayward, L., MacBride, G. and Spencer, E. (2016) [Scotland: the intersection of international student assessment and educational policy development.](#) In: Volante, L. (ed.) *The Intersection of International Achievement Testing and Education Policy*. Routledge, pp. 58-74. ISBN 9781138936515
- 3.4 Spencer, E. and Hayward, L. (2016) [More than good intentions: policy and assessment for learning in Scotland.](#) In: Laveault, D. and Allal, L. (eds.) *Assessment for Learning: Meeting*

*the Challenge of Implementation*. Series: Enabling power of assessment (4). Springer International Publishing, pp. 111-127. (doi:[10.1007/978-3-319-39211-0\\_7](https://doi.org/10.1007/978-3-319-39211-0_7))

3.5 Hayward, L. and Spencer, E. (2010) [The complexities of change: formative assessment in Scotland](#). *Curriculum Journal*, 21(2), pp. 161-177. (doi:[10.1080/09585176.2010.480827](https://doi.org/10.1080/09585176.2010.480827))

3.6 Hughes, S., Makara, K. and Stacey, D. (2020) [Learning progression in the humanities: identifying tensions in articulating progression in humanities in Wales](#). *Curriculum Journal*, 31(2), pp. 276-289. (doi: [10.1002/curj.28](https://doi.org/10.1002/curj.28))

**Evidence of research quality:** Outputs [3.2, 3.5] and [3.6] were published in high-ranking, double-blind peer-reviewed education journals. Outputs [3.3] and [3.4] were published by leading international publishing houses.

#### 4. Details of the impact

##### 4.1. Pathways to impact

In Scotland, UofG research fed directly into Professor Hayward's advisory roles through membership of the Deputy First Minister's Task Group to Review Assessment Arrangements, the Educational Leaders' Forum and the Curriculum Assessment Board (confirmed by collated evidence [5A]). These roles have drawn distinctly and materially upon the underpinning research and provided a direct channel into the national policy arena (as outlined in sections 4.2 and 4.3 below). Based upon the Scottish 'Change with Integrity' model, UofG researchers were commissioned (along with UWTSD) to co-design the progression frameworks for the new Welsh curriculum (as outlined in section 4.4 below). The evaluation of the Scottish model, and the work in Wales, has facilitated engagement with other small nations that recognise the potential of these approaches to change (as outlined in section 4.5 below).

##### 4.2. Informing the development of the National Improvement Framework

In 2015, the Scottish Government commissioned the OECD to review the direction of Curriculum for Excellence. On the basis of her body of research, Hayward was invited to review the Scottish Government's report to the OECD as a critical friend and to give evidence on assessment policy and practice in Scotland (confirmed by statement [5B]). The final OECD report [5C] specifically highlights Hayward's research [3.2], which identifies the innovative features on which the Scottish system was originally based. From 2016 onwards, as the Scottish Government took forward the OECD's policy recommendations (outlined in report [5C]), Hayward's research underpinned the development of the National Improvement Framework, which aims to help deliver excellence and equity in Scottish education (confirmed by statement [5B]).

The Scottish Government's Deputy Director of Improvement, Attainment and Wellbeing confirms that, '*Professor Hayward's research helped to shape the development and implementation of the National Improvement Framework (NIF) by identifying means of avoiding the negative effects of an accountability-focused national assessment system, and presenting evidence to support a model in which assessment is reconceptualised as learning.*' (confirmed by statement [5B]). The NIF is an integrated framework for assessment and evaluation designed to provide the robust, consistent and transparent data required to measure and close the attainment gap. At school level, these data help teachers, schools and local authorities to tailor their own improvement planning. At national level, the Scottish Government use these data to identify trends, drive policy and improvement priorities. The Deputy Director of Improvement, Attainment and Wellbeing added, '*With regards to the NIF, Professor Hayward's research has been instrumental in the development of an internationally-recognised model which integrates teachers, researchers and policy makers as co-constructors of national education policy*' [5B].

##### 4.3. Informing the national assessment policy debate in Scotland

While the national strategy is clear, there has been intense debate around the tools used to implement it effectively. Hayward has been an influential and informative voice throughout this process. For example, in January 2019, on the basis of her research-based expertise, Hayward was an expert witness to the Education and Skills Committee's inquiry into the proposed new system of Scottish National Standardised Assessments (SNSAs). With the Scottish Government under pressure to scrap SNSAs completely, Hayward's evidence [5D] supported the wider NIF strategy and enhanced the understanding of policymakers. For instance, Hayward's evidence

was directly quoted by MSP Rona Mackay, and MSPs Tavish Scott and Ross Greer made specific references to how informative they had found the research-based submission by the UofG (confirmed by official report [5D]). The Clerk to the Scottish Parliament Information Centre (SPICe), with whom Hayward shared related research reports, confirms that, *'The Committee's inquiry on the SNSAs was undertaken in a highly-politicised environment [...] Professor Hayward contributed significantly to the inquiry [...] While SPICe is able to identify and analyse publicly available academic literature and policy documents, this is a highly technical subject area and the support and engagement from academia was key'* (confirmed by statement [5E]).

In addition to her own evidence to the inquiry, SPICe requested that Hayward approach international colleagues for comparisons to understand similar and differing approaches to assessment policy used elsewhere. The key research finding that progression is under-conceptualised internationally led to the establishment—on Hayward's initiative—of the International Educational Assessment Network (IEAN) in 2018. The IEAN comprises senior researchers and policymakers from 13 small nations or states (Scotland, Wales, Ireland, Northern Ireland, Norway, Iceland, Denmark, Slovenia, Switzerland, British Columbia, Singapore, Queensland and New Zealand). These small nations/states share in common the close collaborative networks advocated by the change model developed at the UofG. At Hayward's request, IEAN members answered the Committee's call by providing detailed submissions to the inquiry, thus ensuring that Scottish policy debate was informed by research-based evidence from around the world (confirmed by collated submissions [5F]). Reflecting upon the significance of this activity, a Senior SPICe Researcher acknowledged that, *'Professor Hayward's support in the Committee's engagement with the International Educational Assessment Network was invaluable'*. (statement [5E]).

#### 4.4. Informing the design and development of a new curriculum in Wales

From 2017 onwards, the UofG principles of co-construction developed in Scotland have been adopted by the Welsh Government. Curriculum design is, by its very nature, a once in a generation opportunity. It is highly unusual for researchers to have direct influence in curriculum design and development, as has been the case with the CAMAU project. Due to the role of the underpinning research [3.1], UofG researchers have been appointed to key Welsh national policy committees, such as Hayward's membership of the Independent Advisory and the Curriculum and Assessment Groups and MacBride's membership of the Coherence and the Assessment Groups.

The 'Decision Trees' developed by UofG researchers (outlined in section 2.3) have been used successfully to bring together evidence from research, policy and practice to inform the design of curriculum progression. In the new curriculum, progression steps between 3 and 16 will be used as reference points by teachers to review and plan learners' progression in six Areas of Learning and Experience (AoLE). Descriptions of Learning Progression, relating broadly to expectations at those points, have been developed for every area of the curriculum (known as 'what matters statements'). These will help teachers sequence learning purposefully for each learner. UofG researchers have played a significant role in the collaborative determination of 'what matters' in each AoLE and in the co-construction of Statements of Descriptions of Learning (confirmed by output [3.1]). The Deputy Vice-Chancellor at UWTSU wrote, *'camau means steps in Welsh and camau breision translates into strides or very large steps. There is no doubt that from our early days of crawling, the project has definitely taken camau breision as a result of the hard work and commitment of Athrofa and Glasgow colleagues'* (confirmed by email [5G]).

In a statement in June 2018, the Welsh Cabinet Secretary for Education wrote, *"Our new curriculum and assessment arrangements are being built on 'progression'. The CAMAU project run by the University of Wales, Trinity St David and Glasgow University has supported Pioneers in developing this approach. It will be based on a nationally described continuum of learning from 3-16"* (confirmed by statement [5H]). In July 2020, the Welsh Government introduced the Curriculum and Assessment (Wales) Bill to the *Senedd*. The proposed legislation makes specific reference to CAMAU research (confirmed by summary [5I]). Following a consultation period, the Bill will provide the statutory foundation for the Welsh Government's reforms of the curriculum, which will replace the existing curriculum established in 1988. The Welsh Government plans to phase the introduction of the new curriculum from September 2022, which will impact on

approximately 22,000 teachers and 469,000 pupils. Having designed the new curriculum, the major challenge will be effective implementation, and the Welsh Government's strategy paper and related guidance on managing curriculum change both make specific reference to the central role of CAMAU research in the future programme (confirmed by collated evidence [5J]).

#### 4.5. Informing policy debate and enactment internationally

The UofG research in Scotland and Wales has led to engagement with other small nations that recognise the potential of this approach to change (latterly through the IEAN). As a result, UofG research has provided evidence to inform assessment policy debate and enactment in Norway, Ireland and Slovenia. For example, in Norway, Hayward shared research and was subsequently invited to present to the Ludvigsen Committee in November 2014. A Senior Adviser confirmed that, *'The presentation and the workshop gave the committee a very good foundation for their discussions about curriculum, assessment and implementation. They found it inspiring and used it to reflect on our own system [...] it will be a good reference point for the discussion around curriculum and assessment related to the committees' work.'* In Ireland, Hayward has worked with the National Council for Curriculum and Assessment, where conversations on changing assessment practice with key partners have drawn upon the underpinning research. In Slovenia, Hayward's research was translated and published in a national journal in 2019. A Senior Consultant for the National Education Institute credits the recent announcement that formative assessment will be introduced into all primary and lower secondary schools as, *'a clear sign of the remarkable impact [Hayward] had on policy colleagues during [her] visit to the Ministry [of Education, Science and Sport in November 2019]'* (points confirmed by collated evidence [5K]).

Influencing assessment policy at a global level is a key strategy to influence policy in nation states. As such, international organisations such as the OECD and UNESCO are increasingly influential in educational policymaking in individual countries. Hayward's recent appointment as an International Expert Advisor in a programme of educational reform with UNESCO (STEM) and OECD (Learning 2030) will aim to further extend the reach of the underpinning research through this channel beyond the REF2021 period.

#### 5. Sources to corroborate the impact

[5A] Collated evidence: (i) Letter from the Deputy First Minister and Cabinet Secretary for Education and Skills; (ii) Invitation from the Deputy First Minister and Cabinet Secretary for Education and Skills; (iii) Invitation from the former Director of Learning, Scottish Government (these letters confirm Hayward's senior advisory roles) **[PDFs available]**.

[5B] Statement from the Deputy Director of Improvement, Attainment and Wellbeing, Scottish Government (confirms that advisory roles have drawn distinctly and materially upon the underpinning research, role of Hayward's research in the development of NIF) **[PDF available]**.

[5C] [Improving Schools in Scotland: An OECD Perspective](#) (UofG research is cited e.g. on p.146 which identifies the features on which the Scottish system was based) **[PDF available]**.

[5D] Collated evidence: (i) Education and Skills Committee of the Scottish Parliament official report (23 January 2019) (transcript of Hayward's evidence; feedback and quotes from Scott, Greer and Mackay); (ii) UofG submission to the Education and Skills Committee **[PDFs available]**.

[5E] Statement from the Clerk to the Scottish Parliament Information Centre **[PDF available]**.

[5F] Collated evidence: SNSA inquiry evidence submissions from IEAN members: [Australia](#), [New Zealand](#), [Norway](#), [Singapore](#), [Slovenia](#) and [Switzerland](#) **[PDFs available]**.

[5G] Email from the Deputy Vice-Chancellor and Dean of UWTSU's Yr Athrofa: Institute of Education and Humanities **[PDF available]**.

[5H] [Written Statement](#) by the Welsh Cabinet Secretary for Education **[PDF available]**.

[5I] Curriculum for Wales: summary of proposed legislation (links to the CAMAU project under the sub-heading 'Progression Code') **[PDF available]**.

[5J] Collated evidence: (i) Welsh Government future strategy paper - National Network for Curriculum implementation; (ii) Wilson, F. and Miller J (2018). A Guide to Managing Curriculum Change in Wales. Oxford University Press **[PDFs available]**.

[5K] Collated evidence: emails speaking to the role of UofG research in policy debate and enactment in Ireland, Norway and Slovenia **[PDFs available]**.