

<b>Institution: King's College London</b>
<b>Unit of Assessment: UoA25 (Education)</b>
<b>Title of case study: Assessment for Learning</b>
<p><b>1. Summary of the impact</b></p> <p>As a direct result of research carried out at King's, formative assessment, or assessment for learning, has become a central feature of how UK teachers interact with learners in the classroom in order to support their progression. The findings of six research and development studies have led to guidance aimed directly at, and used by, teachers. They have fed directly into national policies (including <i>Making Good Progress</i> and <i>Assessing Pupil Progress</i>) and informed guidance circulated to all schools in England. Similar initiatives informed by the research have been implemented in Wales, Scotland and overseas. Recommendations from the studies have also informed initial teacher training standards in the UK and the policy of professional teaching bodies. The research is widely used in teacher training.</p>
<p><b>2. Underpinning research</b> [Numbers in brackets refer to references in Section 3.]</p> <p>The research underpinning this case study has re-defined and popularised the concept of 'formative assessment', giving a central role to assessment <i>for</i> learning in contrast to assessment <i>of</i> learning (summative assessment). An initial review in 1998 of research on classroom practices and their impact on pupils' learning [11] demonstrated the efficacy of assessment for learning, but also showed that implementation was poorly understood. This led to a programme of development work with teachers to refine proposals for implementing innovations and to generate evidence from the teachers about their impact. Further research, funded by the Nuffield Foundation [1] and the US National Science Foundation [2], involved the collaboration of researchers, teachers and local authorities in investigating how assessment for learning ideas could be implemented [12]. These studies provided further quantitative evidence of the efficacy of formative assessment, described the relationship between formative and summative assessment, examined the application of formative assessment in practice across a number of curricular areas and contexts, articulated the barriers to its implementation and outlined the professional development and support necessary to overcome these.</p> <p>In addition, the studies provided a model for research-based guidance and professional development for teachers [12] and described ways in which research and dissemination could be integrated [14]. Subsequent studies funded by the ESRC / TLRP programme [9] and the States of Jersey [6] have further developed the theoretical underpinning of formative assessment [13] and demonstrated the ways in which its practice differs between subjects, highlighting the need for teachers to have guidance on the application of formative assessment within specific subjects [15] without which teachers tend to implement formative assessment as a series of techniques rather than in a principled way [16].</p> <p>The research into the effectiveness of these implementations also made clear the need to develop practice in related fields, including dialogue in classrooms, group work for peer-assessment, aspects of personalised learning such as self-regulated learning, and engaging with pupils' self-concepts as learners [13].</p>
<p><b>3. References to the research</b></p> <p><u>Supporting grants:</u></p> <p>[1] Black, William (PIs) (1998-2000). <i>King's Medway Oxfordshire Formative Assessment Project (KMOFAP)</i>. Nuffield Foundation: £70,000.</p> <p>[2] (2000-1). Black (PI) <i>CAPITAL project</i> (KMOFAP extension). US National Science Foundation (NSF) (via Stanford University): £133,000 (£35,000 to King's).</p>

## Impact case study (REF3b)

- [3] Black, Harrison (PIs) (2002-4). *Assessment is for Learning*. SEED Scotland: £19,500.
- [4] Black, Harrison (PIs) (2003). *Science Assessment Review*. Royal Society: £97,000.
- [5] Black, Harrison (PIs) (2004). *Identifying best practice in formative assessment at Key Stage 3*. Department for Children, Families and Schools (DCSF): £8,900.
- [6] Harrison (PI) (2004). *Implementing formative assessment*. States of Jersey: £49,200.
- [7] Harrison (PI) (2005-6). *King's Oxfordshire Summative Assessment Project (KOSAP), Phase 1*. DCSF: £40,000.
- [8] Harrison (PI) (2006-7). *KOSAP, Phase 2*. Nuffield Foundation: £108,000.
- [9] Black, Marshall (CIs) (Lead institution: Institute of Education) (2001-5). *Learning how to learn in classrooms, schools and networks*. ESRC (TLRP): £917,040.
- [10] Black (CI) (Lead institution: Cardiff University) (2006-7). *Assessment of Significant Learning Outcomes (ASLO)*. ESRC: £16,900.
- Key peer-reviewed publications: [hard copies are available on request]
- [11] Black, P. J., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education*, 5 (1), 7–73. (Peer-reviewed journal & original review of research peer-reviewed by Assessment Reform Group.)
- [12] Black, P. J., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2003). *Assessment for learning: putting it into practice*. Buckingham: Open University Press.
- [13] Black, P. & Wiliam, D. (2009) Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21 (1), 5-31. Doi: 10.1007/s11092-008-9068-5
- [14] Black, P. J., & Wiliam, D. (2003). 'In praise of educational research': Formative assessment. *British Educational Research Journal*, 29 (5), 623-638.
- [15] Hodgen, J., & Marshall, B. (2005). Assessment for learning in English and mathematics: a comparison. *The Curriculum Journal*, 16 (2), 153-176. Doi: 10.1080/09585170500135954
- [16] Marshall, B., & Drummond, M. J. (2006). How teachers engage with Assessment for Learning: lessons from the classroom. *Research Papers in Education*, 21 (2), 133-149. Doi: 10.1080/02671520600615638

**4. Details of the impact** [Numbers in brackets refer to references in Sections 3 & 5.]

By re-positioning formative assessment as central to pedagogy and linking it to classroom dialogue, questioning and student interactions for the first time, and by demonstrating how classroom assessment can be used to adapt teaching to the needs of students, the research has led to changes in the way teachers conceptualise classroom practice. This impact has been achieved by the researchers working directly with both teachers and policy makers.

From the outset, impact and dissemination formed a central component in the design of the research programme (see Black & Wiliam, 2003 [14] for a description and discussion), and communicating directly to teachers and other practitioners through publications and workshops has played a key role in building support from the ground up for a change in assessment policy. The researchers produced a widely disseminated set of evidence-based publications for teachers which draw extensively on the reports of teachers who collaborated on the development work. The book, *Assessment for Learning: putting it into practice* [12] has sold over 36,000 copies (over 10,000 since 2008). A series of short (25-page A5) booklets have complemented this book: two – *Inside the Black Box* and *Working Inside the Black Box* - have each sold over 55,000 copies (25,000 in total since 2008), whilst a set of eight booklets each dealing with the application of formative assessment within a particular school subject have also sold well (35,000 total sales since 2008). Our returns from the Authors' Licensing and Collecting Society (ALCS) show that these documents are being copied extensively and the booklets are used widely on initial teacher training courses (e.g., University of Edinburgh place two of the booklets on their online repository for PGCE students each academic year).

In addition, the researchers have undertaken an extensive series of workshops for teachers and other professionals examining how formative assessment can be implemented effectively. For

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example, Black has conducted whole and half-day INSET programmes for individual schools, to kick-start a process of collaborative development for the whole school, in over 85 schools, 24 since 2008. Harrison has been a paid consultant to three local authorities since 2008 (Carmarthen County Council, Ceredigion County Council, and Hammersmith), conducting 60 workshops with their teachers and giving 14 lectures to other local authorities and 42 workshops to individual schools, together with additional workshop talks to Association of Science Education annual and regional meetings, the Field Studies Council and the National Union of Teachers. Beyond schools, King's staff have responded to numerous invitations to talk about this work to many other organisations, including local authorities, teachers' subject associations, and a range of commercial agencies involved in INSET for teachers. There have been over 40 such invitations since 2008, and many more in the preceding years. Broader dissemination has involved the media, with six radio broadcasts, two hour-long programmes on BBC2 in September 2010 and two programmes for Teachers' TV.

A second strand of impact work was directed towards national educational policy. Judy Sebba, then Department for Children, Schools and Families (DCSF) Chief Advisor on Standards, was on the Steering Committee of the Nuffield-funded KMOFAP study and was a key broker in disseminating the research within government. Additionally, the researchers engaged think tanks such as DEMOS (Skidmore, 2003) and IPPR (Brooks & Tough, 2006) and King's staff have made submissions (including invited submissions) to various official committees and groups. As a result, the assessment for learning work made a fundamental contribution to national assessment policies: *Personalised Learning*, *Making Good Progress* and *Assessing Pupils' Progress*, with £150m provided in 2008 to support the implementation of these policies [17, 18]. For example, 'Assessment for Learning' was one of five strands comprising *Making Good Progress (MGP)*. In an independent evaluation conducted from 2007 to 2009, PricewaterhouseCoopers LLP found that their interviewees (teachers, headteachers, local authority coordinators and parents) believed the Assessment for Learning strand to have had the greatest impact of all five strands on teacher practice, pupil engagement and rates of progression [19].

Several DCSF publications describe how assessment for learning underlay the *Assessing Pupils' Progress (APP)* initiative (2008-2010) [e.g., 26]. In their evaluation of this initiative, OFSTED found that *APP* was most successful when it formed part of a strong vision of teaching, learning and assessment and when linked to the formative assessment strategies of identifying and explaining objectives, questioning pupils and giving feedback [27]. The research has also had an impact on the professional development and policy of professional bodies in the UK. For example, drawing heavily on the formative assessment research [11, 12], 'Assessment and professional judgement' was one of just two principal professional development foci of the General Teaching Council for England until it was disbanded in 2011. And the revised *Teachers' Standards* (DfE 2012) in England require teachers to use formative assessment to secure pupil progress.

The work has had a particularly strong impact on education policy in Scotland where the assessment practices currently in place have been directly shaped by the King's research. Following a policy seminar by Wiliam in 2002, the Scottish Ministry decided that the research should underpin Scotland's education strategy for schools. Harrison worked alongside Scottish civil servants, educationalists and academics to help plan, and then to lead, the national implementation in a programme modelled on that rolled-out in England. The strategy included teachers from the English projects cascading the approach across to their Scottish colleagues [3]. Subsequent independent evaluations have shown that this was the most successful of the several innovative programmes introduced by the Education Authority. The programme was fully in place throughout the 2008-2013 period, with continuing professional development provided by Learning and Teaching Scotland and its successor, Education Scotland. Nevertheless, the programme had weaknesses [24] and Black has contributed to its evaluation and refocusing, particularly highlighting the relationship between summative and formative assessment and how this can be developed [25]. In a similar project, commencing in 2004, the King's group helped develop the school assessment policies and practices in the States of Jersey. The value of these was recognised in the States of Jersey Annual Business Plan, 2008 [20] and they have been in operation throughout the REF assessment period.

Beyond the UK, King's staff have provided consultancy based on the research in Sweden, Norway,

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Holland, Portugal, Italy, Slovenia, Macedonia, Peru, Chile, Australia, the Republic of Ireland, Estonia and to the EU. As a result of the consultancy work in Canada, Australia and New Zealand, the research is featured prominently on the government sites in these countries as a means of supporting and guiding the implementation of formative assessment (e.g., see the Australian Assessment for Learning website [23]). In the US the work is one of the few pieces of non-US research to have influenced education debates among policy-makers. *Inside the Black Box* was re-published in the influential US professional journal, *Phi Delta Kappan* (1998), and re-published as a 'Kappan Classic' (2010) with an editorial comment that it has, 'helped change the conversation in education'. The same booklet was translated for distribution to all schools in Hong Kong to support the implementation of the Education Bureau's policy on assessment for learning [22]. Hodgen's UNESCO-funded consultancy in the Maldives (2010) led to the introduction of a formative assessment toolkit in schools and the inclusion of the 'improve[ment] of formative assessment carried out during lessons' as one of five objectives in the country's school improvement plan [21]. In addition, the book and booklets have been translated widely, including into Swedish (with sales of >2000 of the Swedish translation of *Mathematics Inside the Black Box* booklet) and Polish.

### 5. Sources to corroborate the impact

Documents and webpages: [hard copies are available on request]

[17] DCSF. (2008a). *The Assessment for Learning Strategy*. Nottingham: DCSF.

[18] DCSF. (2008b). *Personalised Learning: A Practical Guide*. Nottingham: DCSF Publications.

[19] PricewaterhouseCoopers LLP. (2010). *Evaluation of the Making Good Progress Pilot. Final Report DCSF-RR184*. Nottingham: Department for Children, Schools and Families.

[20] The States of Jersey Annual Business Plan 2008:

<http://www.gov.je/SiteCollectionDocuments/Tax%20and%20your%20money/R%20Annual%20Business%20Plan%202008%20Annex%2020110823%20JMB.pdf>

[21] Maldives School Improvement Plan 2010:

<http://www.moe.gov.mv/root/assets/JQuploader/server/php/files/SCHOOL%20IMPROVEMENT%20PLAN%20%20KS.pdf>

[22] Hong Kong Assessment for Learning: <http://www.edb.gov.hk/en/curriculum-development/assessment/assessment-for-learning/assessment-for-learning-resource-bank-references.html>

[23] States, Territories and Commonwealth of Australia Assessment for Learning website:

[http://www.assessmentforlearning.edu.au/research\\_background/research\\_background\\_landing.html](http://www.assessmentforlearning.edu.au/research_background/research_background_landing.html)

[24] Hayward, L., Menter, I., Baumfield, V., Daugherty, R., Akhtar, N., & Doyle, W. (2012). *Assessment at transition*. Glasgow: University of Glasgow.

[25] Black, P. (February 2008). Invited (confidential) evaluation of a Review of Curriculum Change for the Scottish Education Department, and Black, P. (January 2012). Invited review of new issues in assessment for the Scottish Qualifications Authority.

[26] DCSF. (2009). *AfL with APP: developing collaborative school-based approaches. Guidance for senior leaders*. London: DCSF.

[27] OFSTED. (2011). *The impact of the 'Assessing pupils' progress' initiative*. London: OFSTED.

#### Individuals:

Former Senior Advisor, National Strategies, England. [Impact on teaching and learning in England.]

Chair, Advisory Council, Board of Learning & Teaching Scotland. [Development and implementation of AfL in Scotland.]

Officer in charge of Secondary Education, States of Jersey. [Impact on assessment policy and practice in States of Jersey.]

Advisory Teacher, Ceredigion County Council. [Development and implementation of AfL in Wales.]

Deputy Vice-Chancellor, University of Waikato, New Zealand. [Impact on policy & practice in NZ.]