

<b>Institution: University of Winchester</b>		
<b>Unit of Assessment: 23</b>		
<b>Title of case study:</b> The Centre for Real-World Learning: Reimagining creativity in teaching and assessment across the world		
<b>Period when the underpinning research was undertaken: 2011-2020</b>		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Professor Bill Lucas	Director of the Centre for Real World Learning	2008 - present
Dr Ellen Spencer	Senior Researcher	2011 - present
<b>Period when the claimed impact occurred: 2014 - 2020</b>		
<b>Is this case study continued from a case study submitted in 2014? Yes</b>		
<b>1. Summary of the impact</b>		
<p>Centre for Real-World Learning (CRL) research has led to shifts in public policy in education and changes to pedagogical/assessment practices nationally/internationally regarding creativity.</p> <p>As a result of CRL's novel reframing of creativity in schools (the model), the Organisation for Economic Co-operation and Development (OECD) initiated a four-year, 11 country research project into fostering and assessing of creative/critical thinking. The model is now in use in 35 countries underpinning an acclaimed teacher handbook.</p> <p>The model informed the selection of Creative Thinking as a new Programme for International Student Assessment (PISA) test in 2021, led to policy/practice developments in Australia/England and, through the Durham Commission, an online community and funding for English schools.</p>		
<b>2. Underpinning research</b>		
<p>Creativity is widely accepted as being an important outcome of schooling. Yet there are many different views about what it is, how best it can be cultivated in young people and whether or how it should be assessed. In many national curricula creativity is only implicitly acknowledged, seldom precisely defined and almost never assessed. In schools, especially secondary, the dominance of subjects and subject knowledge makes it harder to embed creativity; research consequently has an important role to play in developing understanding and new approaches. In addition, many teachers are uncertain as to what creativity is, unconfident as to how to teach it and unaware of currently available assessment tools.</p> <p>After an extensive review of the literature, both of creativity as a concept and of its assessment in schools [3.1] CRL developed a model of creativity [Figure 1] in which creativity is framed as five creative habits of mind. CRL's research is primarily conceptual, always seeking to understand ideas with fresh eyes, analysing barriers to implementation and proposing and prototyping different ways of dealing with these. The model was tested and refined with teachers/pupils in two field trials in schools in England in 2012 as part of research funded by Creativity, Culture and Education (CCE) [3.2], [3.3].</p>		

CRL's research offers a theoretical underpinning for the learnability of creativity alongside a definition of creativity which has face validity with teachers. In addition it has made a number of practical suggestions as to how creativity can be developed and tracked in schools.

Three clear benefits of assessing progress in the development of creativity were identified:

- 1) teachers are able to be more precise and confident in developing young people's creativity,
- 2) learners are better able to understand what it is to be creative and to use this understanding to record evidence of their progress, and
- 3) the status of creativity in schools is enhanced.

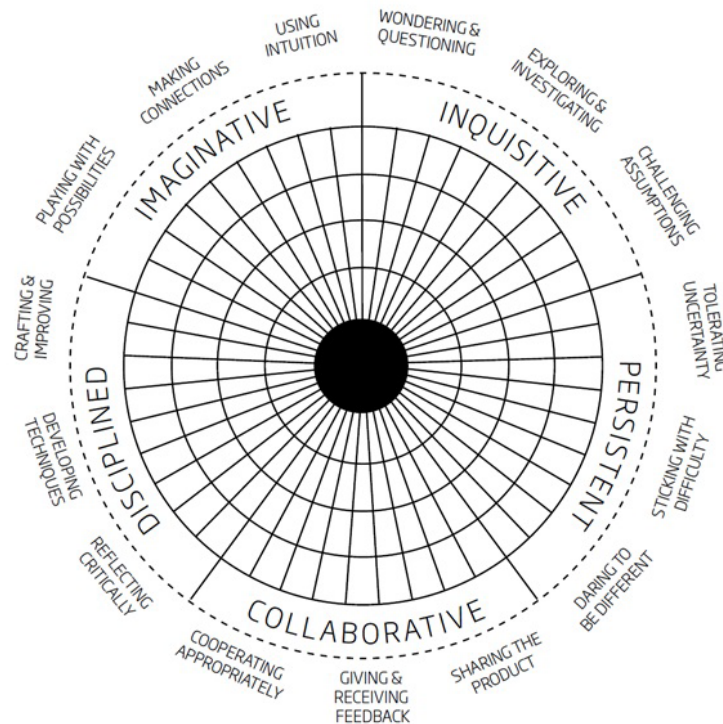


Figure 1 – CRL's five-dimensional model of creativity

CRL's research in England and Australia has, in parallel, demonstrated how the concept of signature pedagogies (particularly potent teaching methods) can usefully be applied in creativity. So, in cultivating creativity five approaches are useful – playful experimentation, problem-based-learning, approaches which focus on the development of 'growth mindset', collaborative methods which see classrooms as learning communities and the systematic use of 'deliberate practice'. CRL's overview of creativity research, along with detailed case studies using CRL's model, has been published in the UK and Australia as an evidence-based handbook for teachers [3.4].

In 2018 CRL was commissioned by the RSA to review the literature of a related concept, creative self-efficacy, the degree to which a person believes herself to be creative, [3.5], using CRL's model as the foundation for this review and also for a larger research project, <https://www.thersa.org/blog/2017/11/creativity-in-adolescence>. In 2020 the Mercers Livery Company awarded CRL £75,000 to research the leadership implications of embedding creativity in schools combining a review of evidence with the development of a community of promising secondary schools in England.

Recently Lucas undertook a review of creativity in international, European, national and state education systems [3.6] which identified the multiple conceptualisations of creativity as a challenge to effective implementation in schools. Various depicted as attribute, capability, competence, core skill, disposition, soft skill, transferable skill and twenty-first century skill, such competing descriptions of creativity can confuse teachers; CRL's model of five creative habits of mind offers a clarity of framing increasingly being adopted.

**3. References to the research** (indicative maximum of six references)

3.1 Spencer, E. Lucas, B. and Claxton, G. (2012) *Progression in Creativity - developing new forms of assessment: a literature review*. Newcastle: Creativity, Culture and Education.

<https://www.creativitycultureeducation.org/wp-content/uploads/2018/10/CCE-Progression-in-Creativity-Literature-Review-2012.pdf>

3.2 Lucas, B., Claxton, G. and Spencer, E. (2013) *Student Creativity in School: First steps towards new forms of formative assessment*. OECD Education Working Papers. 86: 1-46.

<https://www.oecd.org/education/ceri/5k4dp59msdwk.pdf>

3.3 Lucas, B. (2016) A Five-Dimensional Model of Creativity and its Assessment in Schools. *Applied Measurement in Education*, 29(4): 278-290.

[https://cris.winchester.ac.uk/ws/files/346100/303Lucas\\_A\\_Five\\_Dimensional\\_Model\\_of\\_Creativity\\_Gold\\_OA.pdf](https://cris.winchester.ac.uk/ws/files/346100/303Lucas_A_Five_Dimensional_Model_of_Creativity_Gold_OA.pdf) [submitted in REF2a]

3.4 Lucas, B. and Spencer, E. (2017) *Teaching Creative Thinking: developing learners who have fresh ideas and think critically*. Carmarthen: Crown House Publishing.

<https://www.crownhouse.co.uk/publications/teaching-creative-thinking>

3.5 Spencer, E. and Lucas, B. (2018) Understanding the role of creative self-efficacy in youth social action: A Literature Review Ellen. London: RSA.

<https://www.thersa.org/globalassets/pdfs/reports/teenagency-literature-review.pdf>

3.6 Lucas, B. and Venckutė, M. (2020) *Creativity – a transversal skill for lifelong learning. An overview of existing concepts and practices*. Seville: European Commission Joint Research Centre.

[https://publications.jrc.ec.europa.eu/repository/bitstream/JRC121862/jrc121862\\_c4III\\_literature\\_review\\_report.pdf](https://publications.jrc.ec.europa.eu/repository/bitstream/JRC121862/jrc121862_c4III_literature_review_report.pdf)

**4. Details of the impact****Impact on international education policy**

CRL's model of creative habits of mind was first published in 2013 by the OECD [3.1]. In 2015 CRL's model was selected as the prototype framework for an 11 country study (Brazil, France, Hungary, India, Netherlands, Russia, Slovak Republic, Spain, Thailand, Wales and United States) by the OECD into the teaching and assessment of creative and critical thinking in schools which began in 2015. 'Bill's team was the first to develop a model for schools which was evidence-based and, through the results of two field trials in English schools, had face validity with teachers.' [OECD, 5.4].

CRL's model was used in all 11 countries, especially in Hungary, Thailand and Wales. The results of the OECD's research were published in 2019 [5.1]. This OECD publication marks a significant international shift of interest in policy by (a) confirming the importance of creativity (b) demonstrating that it can be taught intentionally, validating CRL research into the role of signature pedagogies, and (c) suggesting approaches to its assessment.

In parallel to these developments Lucas was approached in 2016 by PISA, the OECD's influential Programme for International Student Assessment, to help it develop thinking for a new PISA test in 2021 as part of the PISA innovative domain [5.5]. From an initial paper prepared by CRL, subsequent development work with the OECD and a personal presentation by Lucas to the PISA General Board in 2017, Creative Thinking was selected as the focus of the new PISA test in 2021 and Lucas appointed co-chair of the strategic advisory group. The selection of creative thinking as the focus of the PISA 2021 test has the potential to elevate the concept to the same level as literacy, numeracy and science in the minds of education ministers across the world. The definition adopted by PISA 2021 explicitly acknowledged CRL's research and Lucas's role [5.3, page 7].

CRL's research has also impacted on the strategy of the OECD itself: the work 'will have a broader, longer-term significance. It will strengthen the OECD's ability to develop a wider range of assessments.' [OECD, 5.5].

In 2015 Lucas was invited to give a high-profile presidential address at the American Education Research Association which led to being commissioned to contribute to a special edition on assessing creativity in *Applied Measurement in Education* [3.3]. The paper includes an overview of Rooty Hill High School's approach to creativity in Sydney, a school which has adopted CRL's model and has been collaborating with Lucas since this time [5.10].

At the same time Lucas was engaged as a consultant to the Victorian Curriculum and Assessment Authority (VCAA) in Australia to help shape policy as it mandated the teaching and assessment of creativity in schools for the first time. CRL's research 'has directly impacted the policy and practice of the VCAA and the schools it supports [VCAA, 5.8]. Over 5 years Bill has directly influenced more than 600 school principals and teachers who have attended his workshops, [5.8]. 'Bill's work has also directly impacted on the reputation of the VCAA, bringing it to a global audience via Bill's connection with the OECD/PISA, [VCAA, 5.8]. In 2019 Lucas was appointed by the VCAA to advise on their new online tests for critical and creative thinking (for 15-year-old students), the first such tests in the world [5.8].

Through his advisory role at Victoria University's Mitchell Institute in Melbourne, Lucas has been instrumental in stimulating debate about the professional development practices necessary to embed creativity in schools in Australia, <https://cica.org.au/wp-content/uploads/The-capable-country.pdf> (<https://thesector.com.au/2018/10/22/mitchell-institute-outlines-policy-recommendations-to-develop-capable-children/>) and, via the Centre for Strategic Education in Melbourne, arguing against the use of twenty-first century skills as a means of conceptualising creativity, <http://www.cse.edu.au/content/why-we-need-stop-talking-about-twenty-first-century-skills>.

In 2019 Lucas was engaged by the Joint Research Centre of the European Commission to review the role of creativity as a traversal skill in the EU's eight competence frameworks for lifelong learning. An indicator of impact in Europe is the adoption of CRL's model by the *European Personal, Social and Learning to Learn Key Competence Framework* and by the *Definition of Cultural Awareness and Expression Key Competences* [described in 3.6, p. 19].

In England Lucas advised the Durham Commission on Creativity in Education (2018-2019). The Commission's final report, [5.2], defines 'teaching for creativity' using key concepts from the CRL model. Thomas Tallis School in London [5.9], a longstanding adopter of the CRL model, is featured prominently as an example of best practice in the report [5.2, p.66-67]. The Commission makes a number of policy recommendations the main one of which is a £1.5 million pound investment in new 'Creativity Collaboratives', clusters of schools training teachers to teach for creativity in an attempt to spread good practices more widely [5.7]. This money has been invested by Arts Council England and Lucas has been appointed to the external advisory panel of this new grant scheme, [5.7]. The implementation of the Creativity Collaboratives has been delayed by Covid-19 and to bridge this gap Lucas has been commissioned to develop and curate a new online platform, Creativity Exchange, funded by Arts Council England (ACE), for teachers wishing to embed creativity in their schools, <https://www.creativityexchange.org.uk/>.

A senior representative of ACE describes CRL's impact as 'helping us to frame a definition of creativity, creative thinking and, in particular, a new definition of teaching for creativity' and 'beginning to shape the national discourse about the role of creativity in schools', [5.7].

In 2017 the RSA approached Lucas and Spencer to explore the impact of creativity, as defined by CRL, in out of school settings. A literature review and a policy report have begun to establish the idea of creative self-efficacy as useful concept in understanding young people's likelihood of taking part in social action, <https://www.thersa.org/discover/publications-and-articles/reports/teenagency-summary-of-workshop-findings>.



**Impact on teaching practices across the world**

Drawing on CRL's model of creativity and approach to pedagogy described in *Teaching Creative Thinking* [3.5] CCE has led programmes in 35 countries involving c.7,500 schools and impacting c.100,000 teachers over six years, [5.6]. CRL's research has 'significantly impacted on the work of CCE and on schools internationally'; CRL's model has been 'central to the development and implementation of CCE's programmes across the world' [5.6].

Detailed case studies from three schools in three continents are illustrative. Thomas Tallis in England (<https://www.thomastallischool.com/tallis-pedagogy-wheel-guide.html>) [5.9] Rooty Hill High School in Australia (<https://www.all-learning.org.au/programs/building-critical-skills-rooty-hill-high-school>) [5.10], and Kopernikus College in Chile (<http://www.kopernikus.cl>) have each taken CRL's model, developed a common language complemented by a range of signature pedagogies and thinking routines to embed creativity. These schools are intensive test beds for teaching and assessing creativity using CRL's model. 'Professor Lucas has changed the way our students view themselves as creative, adaptive and successful learners' [Rooty Hill High School, 5.10]

In Perth, Western Australia, after a pilot project in 2018-2019, the State education department has agreed to fund 13 schools to provide training to implement a programme of Creative Schools, using CRL's model, [https://issuu.com/form-wa/docs/tgs\\_program\\_jan-jun-final-lowres-](https://issuu.com/form-wa/docs/tgs_program_jan-jun-final-lowres-).

*Teaching Creative Thinking* (2017), which features CRL's model, has already been reprinted and its ideas have been disseminated via the Expansive Education Network of 200+ schools, <http://www.expansiveeducation.net/>, via articles in *Tes*, in various of Lucas's blogs and via more than 80 key-note speeches and workshops across the world in the period 2013-now.

**5. Sources to corroborate the impact** (indicative maximum of 10 references)**Selected reports:**

5.1 Vincent-Lancrin, S., et al. (2019), *Fostering Students' Creativity and Critical Thinking: What it Means in School*, Paris: OECD Publishing.

<http://www.oecd.org/education/fostering-students-creativity-and-critical-thinking-62212c37-en.htm>

5.2 Durham Commission (2019) *Durham Commission on Creativity and Education*. Arts Council England.

[https://www.artscouncil.org.uk/sites/default/files/download-file/Durham\\_Commission\\_on\\_Creativity\\_04112019\\_0.pdf](https://www.artscouncil.org.uk/sites/default/files/download-file/Durham_Commission_on_Creativity_04112019_0.pdf)

5.3 PISA (2019) PISA 2021 Creative Thinking Framework, 3<sup>rd</sup> draft. Paris: OECD.

<https://www.oecd.org/pisa/publications/PISA-2021-creative-thinking-framework.pdf>

**Key individuals/organisations:**

5.4 Senior Analyst and Project Manager, OECD Centre for Educational Research and Innovation (CERI).

5.5 Senior advisor to the Program for International Student Assessment (PISA) at the Organisation for Economic Co-operation and Development (OECD).

5.6 Senior representative of CCE.

5.7 Senior representative of Arts Council England.

5.8 Senior representative of VCAA, Melbourne.

5.9 Senior representative of Thomas Tallis, London, England.

5.10 Senior representative of Rooty Hill High School, Sydney, Australia.