



Educating for Creativity – a Review of the Literature



1. Introduction

Cultivating creativity has been central to education, as shown by the regular reports, interventions and policy papers on the subject. The most recent of these is the 2019 report of the *Durham Commission on Creativity and Education*¹ produced jointly by the University of Durham and Arts Council England.

The Durham Commission report contains a number of useful insights. Firstly, it summarises the debate around how to describe what creativity is, and it provides three useful definitions:

- *Creativity: the capacity to imagine, conceive, express or make something that was not there before.*
- *Creative thinking: a process through which knowledge, intuition and skills are applied to imagine, express or make something novel or individual in its contexts. Creative thinking is present in all areas of life. It may appear spontaneous, but it can be underpinned by perseverance, experimentation, critical thinking and collaboration.*
- *Teaching for creativity: explicitly using pedagogy and practices that cultivate creativity in young people.*

Durham Commission on Creativity and Education page 2²

Secondly, the report lists 17 previous UK reports and initiatives that have been influential in promoting creativity within education. It also provides a summary of the impact of each of these.

2. Defining creativity

One of the greatest difficulties of creativity is agreeing on a definition. The Durham Commission, which draws directly on the 1999 report *All Our Futures: Creativity Culture and Education*, defines creativity as follows:

Imaginative activity fashioned so as to produce outcomes that are both original and of value.

NACCCE Report, page 30³

In order to pursue that aim, it is vital that teaching for creativity involves the classroom teacher in examining their own understanding of creativity.

The Durham Commission and its related research on creativity states that creativity is *domain specific*. This means that, for example, to be creative in the context of science differs from the creativity of writer, a technologist, a cook, and so on.

3. Issues with creativity in school settings

All Our Futures was a response to the fact that the Creative Industries in the UK are an increasingly significant part of the overall economy.

The report was widely welcomed at the time, although its recommendations were implemented in a haphazard manner, if at all. Perhaps in response to the slow pace of change, Ken Robinson critiqued the status of creativity in schools in his celebrated 2006 TED talk *Do Schools Kill Creativity*⁴ (65 million views and counting).

Robinson argues that the established structures in education tend to favour convergent thinking and to marginalise divergent thinking. He cautions against allowing this status quo to stifle the natural tendency to think in ways that are playful, explorative, speculative and individual.

In the years since his TED talk, Ken Robinson has been criticised for downplaying perfectly reasonable priorities (such as teaching mathematics) in his zeal to argue for a greater emphasis on creativity.

¹ www.dur.ac.uk/creativitycommission/

² www.dur.ac.uk/resources/creativity

³ <http://sirkenrobinson.com/pdf/allourfutures.pdf>

⁴ https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity

He actually does no such thing: it's just that colourful nature of his delivery draws attention to alternatives, such as the point he makes about dance not occupying a central position in the curriculum of any nation. It's not that he advocates dance replacing maths: he simply uses it as an example to illustrate how current structures value certain areas of knowledge at the expense of others. In fact, he explicitly states that subjects like maths remain important parts of the curriculum.

Robinson believes that if the purpose of education is treated solely as a means to prepare students to enter the workforce, it risks hindering the kind of vibrant, healthy and productive outputs that public education is intended to achieve.

Robinson highlights that creativity is to do with particular ways of thinking. A telling comment is to do with the tentative nature of creative thinking: to move towards something new, you have to first try what hasn't been tried before, and until you try there's no way of weighing up the potential success of the attempt:

...if you're not prepared to be wrong, you'll never come up with anything original – if you're not prepared to be wrong. And by the time they get to be adults, most kids have lost that capacity. They have become frightened of being wrong. And we run our companies like this. We stigmatize mistakes. And we're now running national education systems where mistakes are the worst thing you can make. And the result is that we are educating people out of their creative capacities.

His comments draw attention to the fact that creativity can be problematic. It is difficult to foster creativity in school settings where the activities are geared towards groups of pupils doing similar activities at the same time. American educationalist and creativity specialist Ronald Beghetto recommends a pragmatic approach to creativity in schools, suggesting a step-by-step and small-scale approach as the most likely route to achieving success.

4. Arguments for creativity

This approach to teaching for creativity is based on two key assumptions:

1. If giving attention to creativity is to be worthwhile, it must contribute in some way to improving pupil performances in the particular subject.
2. Because of teachers' lack of time, the course of action proposed must be a minor adjustment to routines.

With the first point, we must remember that creativity is domain specific. With the second, the pupils must work with the subject content. This is a largely a question of skilful thinking on the part of the teacher.

5. Creativity and imagination

Creativity is generally thought to be closely linked to imagination. Imagination is discussed in both the Durham Commission and NACCCE definitions. The similarities are apparent: to be imaginative means to have the ability to think things up, to generate mental images, and to express them.

The website of Imaginative Education Research Group (now superseded by The Centre for Imagination in Research, Culture and Education⁵) provides a summary of what imagination is:

... the ability to think of the possible, not just the actual; it is the source of invention, novelty, and flexibility in human thinking; it is not distinct from rationality but is rather a capacity that greatly enriches rational thinking; it is tied to our ability to form images in the mind, and image forming commonly involves emotions.⁶

In this sense, imagination can be thought of as a function of creativity. To build creative ability is to develop the imagination.

⁵ www.circsfu.ca

⁶ <http://ierg.ca>

The description of imagination from the IERG website already quoted is from the work of educationalist Kieran Egan. In *The Educated Mind* (1997) Egan argues that human minds are predisposed to arrange information in the form of narrative. This is how we make sense of things, and is central to the way we process information and how we learn.

6. Creativity and the Thinking Skills and Personal Capabilities

Ken Robinson's remarks on creativity within schools adhere to the priorities of the Northern Ireland Curriculum, and in particular with the idea of the TS&PC as a framework for building a positive classroom environment where creativity can take place.

A central premise of the TS&PC is that classrooms should be places where thinking is actively encouraged. The classroom environment aimed for is described in the literature as a *thinking classroom*, meaning that pupils are actively engaged in constructive thinking about the subjects they are studying. The teacher can do this by demonstrating the steps through a problem, and thinking aloud to model the processes of information gathering, analysis and evaluation.

7. Considering the nature of creativity

In order to understand the importance of creativity in the lives of our pupils, we will look in more detail at some of the assumptions about the nature of creativity.

Firstly, we should recognise that creativity is an innate capability we all share. As Ken Robinson attests, children need little encouragement to act and think in ways that are precursor forms of creative thinking.

7. a) Creativity as a continuum

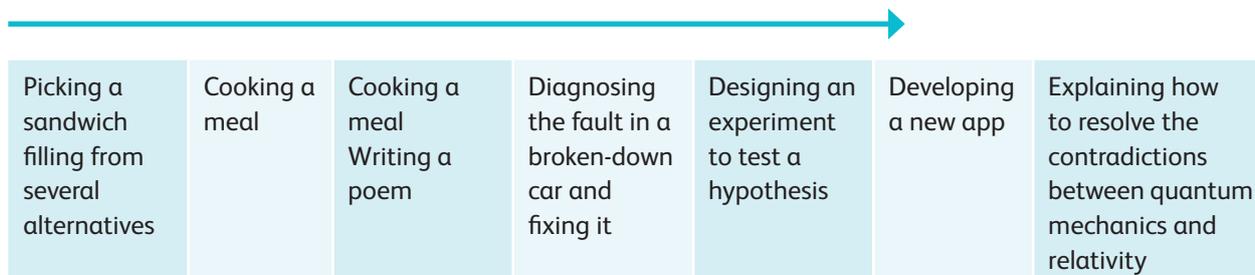
Many assumptions about creativity are influenced by the sense that creativity is something mysterious and unapproachable, as we tend to think of examples of exceptional individuals and geniuses.

Hungarian-American psychologist Mihaly Csikszentmihalyi (considered one of the leading authorities on creativity) developed the concept of flow, and theorised extensively on the nature of creativity. Csikszentmihalyi represents a school of thought within the academic study of creativity that focuses on 'great lives'. Csikszentmihalyi limits his writings to only the exceptional individuals responsible for significant cultural advances, who are at the extreme end of the creativity continuum. Another academic working in this vein is Dean Keith Simonton, whose biographical studies attempt to unravel what personal qualities led to the success of the greatest innovators.

This isn't helpful; instead, we should start with the mindset that creativity is an innate capacity which we all have. We can see it in even the most everyday situations, for example, simple decisions we make about what to have for dinner share some characteristics with the reasoning involved in creativity. They are choices that we all make, many times a day. They exist at one end of a continuum of creative thinking, with the leaps of imagination that lead to new theories and inventions at the other.

The point is to make clear to pupils that precursors to creative thinking can be commonplace things, so that they can use them as starting points towards developing their true creativity.

Fig. 1 The Creativity Continuum



7. b) Studies of genius

That is not to say that the examples of ‘great lives’ have no place in the classroom: on the contrary, referring to such examples is a great way to illustrate to the pupils how people have succeeded creatively in the past: prolonged study, hard-won insight, determination, perseverance, and resilience in the face of early setbacks have all played a part. Examining the difficulties that famous figures have passed through as they pursued their goals can counter the idea that such successes came without effort.

Discussing great lives can also help pupils to identify how the person came up with their ideas. You can ask the pupils to name notable figures from the history of the subject they are studying, and ask them to name them and discuss their contribution at the end of a term, year, and Key Stage.

7. c) Stages in intellectual development

We associate creativity with play and playfulness. Examples of creativity are often of young children spontaneously creating imaginary worlds as they play. In schools, this has sometimes led teachers to believe that attention to creativity is for younger pupils. This error is one of the factors that Ken Robinson cites as being a barrier to creativity within schools.

7. d) Building resilience

The best way to address feelings of inadequacy in pupils is to simultaneously build their mental

resilience. The teacher should help the pupils to recognise that success often comes after several unsuccessful attempts rather than straight away. The teacher can help the pupils to develop creative resilience by making sure that they understand more about the standards for success they apply to themselves. Meeting those standards is often a question of steady advance through several sub-stages of building core knowledge, developing confidence in applying established methods, and slowly building capacity to realise their aims in their classroom activities.

This matches with the conditions for a thinking classroom outlined earlier. Resilience is one of the features of Being Creative in the guidance materials for the TS&PC, and it is explicitly covered under the bullet points:

- Value the unexpected or surprising
- See opportunities in mistakes and failures
- Take risks for learning.

You can find examples of each of these for all Areas of Learning in the Progression Maps for KS3.⁷

7. e) Combating the idea that only the particularly talented can succeed

Pupils often believe that those who succeed in a particular field have a predisposition that confers advantage. This happens when people attribute conspicuous success to the performer being *gifted*

⁷ www.nicurriculum.org.uk

and/or talented rather than as the result of sustained effort. The risk is that the child who perceives themselves as average and compares themselves with those doing better will conclude that it's not worth making any further effort.

This is a damaging concept. The American author John Updike rejects the idea that creativity is in some way exclusive. He said:

'Creativity is merely a plus name for regular activity... any activity becomes creative when the doer cares about doing it right, or better.'

Creativity is a trait that we all have, and we can all develop. It can be taught, although – like many of the most significant components of learning – the process is not straightforward. Teaching for creativity uses both teaching particular processes and methods, and also uses encouragement, advice and guidance.

Creativity will wither unless it is actively targeted and encouraged. This is the key message of *All Our Futures*, and it remains relevant even though that publication is now twenty years old. The first step for the teacher to encourage it is to identify where the component of creative thinking lies within any classroom activity.

7. f) Creativity as exclusive to the arts

Formerly, this misperception was widespread. Creativity, especially in an educational context, was often believed to be something that was the preserve of the arts, particularly art, music and drama. Fortunately, that kind of assumption has been successfully contested. Of course creative endeavour is necessary and active in every sphere. Nevertheless, in an educational context there can still be some resistance to seeing science and mathematics, or history and geography as appropriate areas for creative thinking. While teachers rarely make this assumption, people outside education can sometimes question the relevance of having creativity as a focus in every school subject.

When people understand that creative thinking is a feature of problem-solving and innovation, such objections are easily disposed of. For example, in

school-level mathematics there are often situations in which there are several possible routes to arrive at an answer to a calculation. The creative problem-solver will be the one who can evaluate the possibilities and identify the most efficient method. The criterion for 'most efficient' might not always be the same: for example sometimes quickest might be best, at other times, the criterion could be most *accurate*.

In a science context, devising the means to test a hypothesis means designing an experiment. Thinking through what's involved in the experiment and eliminating bias, measurement error and so on is a way of better understanding the properties of the thing being. It also requires the pupil to think creatively to reconcile the components involved in running the experiment successfully.

8. Conclusion

One of the principal goals of educating our young people is to help them to successfully develop their innate creativity. This involves nurturing the learner's creative faculty so that they become ever-more effective at generating new ideas and approaching problems in novel ways. By helping pupils to develop their creativity, you are helping them to grow into well-rounded individuals who are capable of enjoying the satisfactions of a rich inner life as well as a prosperous working life. The ability to think and act creatively is one of the main ways in which the educated individual can contribute to society.

The issues that have been discussed here should provide teachers with some ideas on exploring their own understanding of creativity, for example:

- what it means to them;
- how it can become part of their subject context; and
- how they can build creativity into their lesson plans and assessment design.

This document complements the CCEA resource: *Teaching for Creativity*.⁸

⁸ [Teaching for Creativity, CCEA](#)

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9. Links

The following online materials will help you to explore the significance of creativity to education.

www.dur.ac.uk/creativitycommission

This site, the Durham Commission on Creativity and Education, has a range of resources including videos and case studies.

www.sirkenrobinson.com

Ken Robinson's website includes his blogs on educational issues and links to the report All Our Futures, as well as many other sources of information.

www.bbc.co.uk/programmes

This series of programmes from Radio 4 features interviews of sometimes-controversial figures in the education debate.

www.ronaldbeghetto.com

This features a series of podcasts where education specialist Beghetto discusses various aspects of creativity in education.

www.education.gov.scot

In this short video, Dylan Wiliam talks about the significance of creative thinking hosted on the Education Scotland website.

www.researchgate.net

This is a downloadable PDF of a paper documenting a discussion about creativity conducted by four academics. They range over a number of interesting points about the nature of creativity and its significance to education.

www.cprtrust.org.uk

This 2015 Article by Teresa Cremin for the Cambridge Primary Review Trust links to a number of related online sources.

www.creativitycultureeducation.org

This research and consultancy foundation focuses on creativity. Their online newsletter reports on developments in creative education around the world.

www.theconversation.com

This is a short and readable article by Liane Gabora about the nature and status of creativity in schools.

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Further reading

The following list explores teaching creativity in the context of primary and post-primary educational settings.

Beghetto, Ronald A. (2013) Killing ideas softly?: The promise and perils of creativity in the classroom, Information Age Publishing ISBN-13: 978-1623963644

Craft, Anna (2010) Creativity and Education Futures: Learning in a Digital Age Trentham Books Ltd ISBN-13: 978-1858564623

Csikszentmihalyi, Mihaly (1996) Creativity: Flow and the Psychology of Discovery and Invention Harper Collins ISBN 0-06-017133-2

Egan, Kieran (1997) The Educated Mind: How Cognitive Tools Shape Our Understanding University of Chicago Press ISBN-13: 978-0226190365

National Advisory Committee on Creative and Cultural Education (1999) All Our Futures: Creativity, Culture and Education DfEE ISBN 1-84185-034-9

Simonton, Dean Keith (1999) Origins of Genius: Darwinian Perspectives on Creativity Oxford University Press ISBN-13: 978-0195128796

Storr, Anthony (1993) The Dynamics of Creation Ballantine Books ISBN-13: 978-0345376732

Thomas, Kerry and Chan, Janet (eds.) (2013) Handbook of Research on Creativity Edward Elgar Publishing Ltd ISBN-13: 978-0857939807

Vernon, P. E. (ed.) (1970) Creativity: Selected Readings Penguin – 1970

Weisberg, Robert W. (2006) Creativity: Understanding Innovation in Problem Solving, Science, Invention, and the Arts Wiley ISBN-13: 978-0-471-73999-9

