

Durham Commission on Creativity and Education



Durham Commission on Creativity and Education

DURHAM COMMISSION 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 pedagogies and practices that cultivate creativity in young people.

CONTENTS

The Commissioners	4
Foreword	5
1 The work of the Commission	11
2 The Durham Commission’s recommendations	17
3 The value of creativity	27
3.1 Identity and community	29
3.2 Mobility	32
3.3 Wellbeing	39
4 Creativity in the education system	45
4.1 Creativity in pre-school and early years environments	46
4.2 Creativity in schools in England – opportunities and challenges	49
4.3 The conditions for encouraging creativity in the classroom	64
4.4 How do we compare to other education systems?	69
4.5 Creativity in extra-curricular environments	70
5 Conclusion	73
Appendix – Previous reports and initiatives to develop creativity in education	75
References	85

THE COMMISSIONERS

Sir Nicholas Serota, CH: Chair of Durham Commission, Chair of Arts Council England

Sir David Adjaye, OBE: principal and founder of Adjaye Associates Architects

Lauren Child, MBE: award-winning children's author and former Children's Laureate

Sir Jon Coles: Chief Executive of United Learning

Althea Efunshile, CBE: Chair of National College of Creative Industries

Dame Reena Keeble: Educationalist and former primary Headteacher

Lord Kerslake: Chair, Peabody Trust

Imran Khan: Head of Public Engagement, Wellcome Trust

Akram Khan, MBE: Director of Akram Khan Company

Baroness Kidron, OBE: Filmmaker and co-founder of educational charity Into Film

Professor Roger Kneebone: Professor of Surgical Education and Engagement Science, Imperial College

Anne Longfield, OBE: Children's Commissioner for England

Professor Linda Merrick: Principal of Manchester's Royal Northern College of Music

Jacqui O'Hanlon: Director of Education, Royal Shakespeare Company

Kathryn Pugh: Headteacher of The St Marylebone CE School, London

Paul Roberts, OBE: Arts Council England National Council member and Chair of the Innovation Unit

Phil Stokes: Creative Industries Leader, PwC

Alice Webb: Director, BBC Children's and BBC North

FOREWORD

Humans have always responded to change, and to the impact of technology, with ingenuity, but today the pace and scale of change feels like something quite new. In part, this may be because our awareness of shifting environmental, economic and social currents is heightened by the constant connectivity provided by the internet. If experienced leaders seem at a loss as to how to respond, how much harder it must be for young people to make positive decisions about their own lives and the shape of the world they want to see.

This faster pace of change requires an evolution in how we think, and how we think about education and the way children learn. Our current, knowledge-based system only goes part of the way towards equipping young people with the skills that will give them the confidence and resilience to shape their own path through life. They need to make the most of our human capacity for imagination and critical judgment, especially with our ever-greater dependency on technology and artificial intelligence. They need to exercise creativity.

There need be no conflict between knowledge and creativity in our education system. Indeed, the opposite is the case – creativity is founded on deep understanding. Every meaningful creative breakthrough in human history has been made by people with deep expertise, immersing themselves in the practices and problems of the field and finding new ways to see, act or behave.

But, more often than not, we are failing to show young people how their hard-won knowledge can be creatively applied to help them lead more fulfilling lives and influence our changing world for the better.

The Durham Commission was convened to look at how our education system and wider system of learning for children can grow that capacity for creativity. We began by asking how creativity is experienced and valued in the world. Creativity, of course, goes by many names. It may be called intuition, enquiry, or expression; for business, it may be described as innovation, invention or entrepreneurship. In all areas of life, from the sciences and humanities to the arts, creativity is seen as the ability to think laterally and come up with imaginative solutions to problems, to work across disciplines or to enjoy constructive play.

Simply put, creativity is the capacity to bring into being something that was not there before. It exists in significant ways that drive change – major innovations in science, technology or the arts, for example; and it exists in smaller ways – as when individuals and communities find new solutions to the challenges of their daily life. Creativity gives people a sense of agency.

Whatever we call it, we need it urgently. Fortunately, we know that it is a capacity that can be developed by good teaching. Teaching for creativity is becoming a global phenomenon. Countries such as Finland, Australia, Singapore and Canada are evolving creativity-focused education systems to future-proof their prosperity. But in England, we have not yet given creativity the priority that is required to meet our future needs, or indeed give our children the opportunities they deserve.

Over the last year, the Commission has spoken to leaders and practitioners from industry, science, education, politics and the arts. We have developed a shared understanding of the knowledge, skills, attributes and behaviours that are characteristic of creativity, and have produced practical definitions of creative thinking and creativity that provide a foundation for our recommendations.

This report describes the Commission's research and findings. I want to highlight some of these.

- There remains a misconception that creativity is solely the province of the arts. This is not true. Creativity exists in all disciplines. It is valued by mathematicians, scientists and entrepreneurs, as well as by artists, writers and composers.

The Commission has found inspiring examples of teaching that develops creativity and lateral thinking across all subjects and in all areas of children's learning. In the arts as much as in the sciences, it is founded on knowledge and understanding as well as the development of facility and technique.

The Commission believes that the arts make an invaluable contribution to the development of creativity in young people. We are therefore deeply concerned about the reduction of status of arts subjects including art and design, dance, drama and music within schools that has followed the introduction of the EBacc in secondary education, and that concern is reflected in our recommendations.

- We found that there is great interest in teaching for creativity and its capacities across the whole education cycle and the whole curriculum. There are many examples of excellent practice in schools. But teaching for creativity is not widespread and is inhibited by the absence of agreed models of teaching for creativity, a lack of confidence among teaching practitioners, and a shortage of resources.

Our recommendations address these challenges, while the main report contains a detailed account of the conditions and processes that are necessary if teaching for creativity is to flourish.

- In addition, running through the report and all our recommendations is the conviction that teaching for creativity should be practised across the whole school system. There is a huge disparity in teaching for creativity between schools, often reflecting socio-economic factors. We have found that the independent sector is better resourced in schools that teach for creativity. The evidence shows that teaching for creativity confers personal, economic and social advantage. As a matter of social justice and national interest it should be available to all young people, not only to those who can afford it.

The Commission believes that it is short-sighted and morally wrong not to take advantage of the diversity of perspectives, experiences and cultures that exist across England. Everyone has the potential to contribute to the cultural capital of the nation and our recommendations draw attention to the need to develop the strengths that diversity can bring to society as a whole.

- As widely recognised, creativity is the driver of economic growth and innovation. Especially in the last 10 years, our national economy has been boosted by the success of the creative industries. Such success will only continue so long as we can ensure that young people are given the opportunity to experience and develop the skills in art, drama, music, design, craft and digital awareness that are the foundation of the creative industries.

However, success in the creative industries should not obscure the need to revolutionise the wider economy through the application of creative thought, and especially through the creative use of technology. Creativity is now one of the most sought-after clusters of skills for all employers. At a personal level, young people need the enterprise and confidence that creativity encourages, if they are to

thrive in a world in which they will change jobs more frequently than in previous generations.

- Across the country, the Commission has found many moving examples of the ways in which creativity has fired young people's imagination, empathy and the ability to effect positive change. Creativity often depends on collaboration, or on sharing insight and experience, and can be a powerful catalyst for civic engagement, changing communities for the better.

Finally, creativity can make a contribution to personal wellbeing.

- Many leaders across business and civic society told us how creativity helps young people to generate ideas, to apply their knowledge to new circumstances, to have the courage to fail and try again. Many others talked about the value of creativity in terms of personal resilience and happiness. At a time when the mental health of children and young people is of concern, there is ample evidence of the value and importance of creativity in supporting wellbeing. Young people can find strength, inspiration, consolation and community in their shared experience of creativity.

This report therefore aims to lay a foundation for future work. Read individually, each recommendation will not result in immediate, dramatic change, but taken together with implementation over time, the recommendations will bring a real shift in educational policy and practice. The role of the Commission over the next year is to open and join up conversations with a range of partners to take forward the recommendations. We will report on progress in autumn 2020.

Children born in the UK today can expect to live for as much as one hundred years. They are likely to witness immense change and face great challenges. An education that stimulates their creativity can help them thrive, enjoy, and achieve in their lives, and shape a better future for themselves, as well as for the nation as a whole.

Sir Nicholas Serota, CH

Chair of The Durham Commission on Creativity and Education

ACKNOWLEDGEMENTS

The Commission has been a partnership between the Arts Council and Durham University and I would like to thank our academic colleagues at Durham for their commitment and hard work in support of the enterprise. The research methodology, devised by the Durham team, has provided a solid foundation for our findings and their combined expertise and insight have guided the work of the Commission throughout. The Vice-Chancellor and Warden, Stuart Corbridge, embraced the idea of a Commission with enthusiasm and helped to ensure that it set off in the right direction. Within the university, particular thanks go to Professor Simon J. James, Professor Alan Houston and Professor Lynn Newton, who have so effectively led the work of the Commission from its inception, through all the interviews and round-table discussions, to the preparation of the final report. They have been ably assisted by Dr Pauline Moger, Dr Jo Gooding and Lucy Davies. Sophie Daniels has been at the centre of the whole process, co-ordinating all aspects of our work with admirable skill, determination and the occasional sense of humour that all such projects require, if they are to succeed. Jane Robinson's contribution to the work of the Commission was much missed when she was obliged to withdraw on leaving the university.

At the Arts Council, Nicky Morgan has been tireless, resourceful and imaginative in leading the initiative with strong support from Ross Burnett, Will Cohu and Anne Appelbaum. Dr Darren Henley, Chief Executive, who is himself an authority on the subject of the Commission, has given helpful support and advice at every stage.

I would also like to thank a number of external academics who have supported the work of the Commission – Professor Pat Thomson at Nottingham University, Professor Paul Ramchandani at Cambridge University, and Professor Daniela da Costa Coimbra at Polytechnic Institute of Porto. Professor Bill Lucas at Winchester University has brought an international perspective to our work by enabling us to set the work of the Commission within the context of global interest in the place of creativity in education. Anthony Ruck at University of Warwick also shared his valuable experience and expertise at critical moments.

Thanks must also go to all those who contributed to our research, responded to enquiries, attended round-table meetings, or otherwise provided their time and expertise in offering evidence. This report has benefitted immensely from your generosity.

AUTHORSHIP

This report is the work of many hands. It has been shaped by discussion within the Commission and by the insights and extensive experience of individual Commissioners.

It has been authored by a group including Simon J. James, Alan Houston, Lynn Newton and Sophie Daniels at Durham, Nicky Morgan and Will Cohe at the Arts Council, Anthony Ruck at Warwick and Bill Lucas at Winchester with guidance from Paul Roberts, Kathryn Pugh and Jon Coles as Commissioners.

Simon J. James and Sophie Daniels organised and steered the challenging process of gathering and evaluating evidence. Bill Lucas made a vital contribution to the structure and content of the report, especially in developing the section on creativity in schools with Lynn Newton and in working with Lucy Davies and Anthony Ruck on the Appendix.

RESEARCH TEAM, DURHAM UNIVERSITY:

Professor Simon J. James (chair), Professor Lynn Newton, Professor Doug Newton, Dr Mariann Hardey, Dr Alex Easton, Ms. Lucy Davies, Dr Pauline Moger, Professor David Waugh, Dr Dimitra Kokotsaki, Ms. Yolanda Gibb, Professor Tom Lancaster, Professor Julian Horton, Dr Pete Edwards, Dr Karen Johnson, Dr Julie Van de Vyver

1

THE WORK OF THE COMMISSION

The Commission is a joint research collaboration between Durham University and Arts Council England, convened to look at the role creativity and creative thinking should play in the education of young people.

The Commission was appointed in response to the strength of opinion across the business, education and public sectors that young people are emerging into a world in which the skills and knowledge of the current education system will no longer be sufficient.

Young people are growing up in a global environment that is increasingly complex and increasingly permeated by technology. They will face challenges that can only be overcome by deep knowledge and understanding allied to the interdisciplinary and collaborative skills that are characterised by creative thinking. These challenges are economic (the rise of automation and the widespread use of information technology, globalisation and the shift of global economic power), environmental (climate change and its impacts) and societal (mental health in young people, the need to establish strong communities where social and economic structures have been eroded).

“For me, creative thinking is one of the greatest skills that you can encourage children, anyone to have. Problem solving, resilience and being able to find solutions is basically the core of all kinds of careers; this is what we’re going to need in the future.”

Senior Leadership Team, Yorkshire & Humberside, LA-maintained School, Primary

The Commission has drawn upon earlier enquiries into the nature and application of creativity but has sought to gather and respond to new evidence as a basis for developing a fresh approach to teaching for creativity in schools.

Many previous inquiries focused exclusively on creativity within the individual. By contrast, the Durham Commission has sought to understand how creativity is expressed and experienced across society as a whole and to examine where its impact can be perceived.

The Commission has considered creativity and creative thinking in relation to three themes that underpin an individual’s life:

- **Identity and community:** what contribution does creativity make to the development of the individual and what impact does it have on our collective social engagement?

- **Mobility:** how does creativity offer opportunities for individual growth and the development of skills that can respond to the challenges of rapid technological development and automation?
- **Wellbeing:** does creativity contribute to our wellbeing; does it support young people's mental health, and help young people have a positive relationship with technology?

What research did the Commission conduct?

The Commission's Research Team undertook a mixed methods approach to its research programme, consisting of a number of key evidence-gathering activities:

- 1 **A global literature review** was undertaken on the broad subject area, supplemented by detailed evaluation in the three thematic areas.
- 2 **A questionnaire** exploring the relationship between creativity, education and the workplace was circulated nationally and internationally.
- 3 This was followed up with **interviews** with key stakeholders across business and creative industries, education, early years practitioners, government and policy and arts and cultural organisations.
- 4 There was also **a survey of headteachers and governors** conducted by BritainThinks.

These activities were supported by **14 round-table stakeholder engagement sessions** across England, half of which were focused on groups of particular interest (e.g. trainee teachers or business leaders). These sessions followed the same structure exploring a series of core questions: What is creativity? Why is it of value? How can it be cultivated in school? What are the challenges/obstacles? What place does it currently occupy within the formal education system and the national curriculum?

The Durham Commission's vision for creativity and education

Much has been achieved in our education system to improve academic standards, but respondents to the Commission's research argued that this has been at the expense of nurturing the creativity of our young people, and neglecting the development of the skills, knowledge, understanding and experiences which they will need in the world beyond school, and which our economy, culture and society need to flourish.

Notably, it is among young people from disadvantaged backgrounds where opportunities for creativity are now most limited. Such neglect and exclusion is not acceptable or desirable for the future of our people and country.

Drawing on its research, the Commission has developed a vision for promoting creativity in education:

- All schools, from early years through post-16 education, should be better enabled to establish and sustain the conditions in which creativity can be promoted, for all young people, whatever their background.
- Teaching for creativity should be practised across the curriculum and accessed by all. This is not at odds with academic rigour; indeed the development of creativity in any subject requires deep subject knowledge and understanding as well as the development of skills that enable the application of this knowledge and understanding. Nor should teaching for creativity be confined to certain subjects or phases; creativity in science is different from creativity in drama but is valuable in both.
- Teaching for creativity, done well, will promote students' opportunities for creative learning and creative thinking: exploring; experimenting; trying and re-working; making and re-making; engaging with difference; overcoming obstacles; and developing and applying knowledge and understanding. This practice can be applied in all subjects, domains and phases.
- Through engaging in opportunities for creative learning, grounded in subject knowledge and understanding, students' creative capacity will be nurtured and their personal, social and academic development greatly enriched.
- With these advantages our young people will enter society and the world of work able to think and work creatively across disciplines and sectors, tackle problems from different angles, collaborate effectively, innovate, negotiate the changing nature of the digital world and workplace, sustain our cultural and industrial sectors, imagine and realise solutions to problems of the future – and champion the UK as a leader in creativity.

The Commission recognises that developing such opportunity is aspirational and a great deal of collaborative school-led work, courageous leadership and inter-organisational engagement is required to deliver it. Yet it is a vision worth pursuing; its realisation would benefit students, families, communities, the workplace and the nation's culture, politics, economy and global influence.

The Commission strongly believes that such opportunity should be available to all young people, whatever their socio-economic or ethnic background. Our recommendations call for a range of organisations to deliver this vision for a universal, inclusive creative education. These organisations include the Department for Education (DfE), Department for Digital, Culture, Media and Sport (DCMS), Ofsted, Ofqual, Institute for Apprenticeships and Technical Education, Nesta, BBC, Arts Council England and Local Cultural Education Partnerships (LCEPs).

Previous approaches on creativity – also see Appendix

The early pioneer, Guilford (1950), saw the creative act as having four stages – preparation, incubation, illumination and verification. He distinguished between two kinds of thinking: convergent – coming up with one good idea; and divergent – generating multiple solutions. Divergent thinking, he argued, is at the heart of creativity.

Creativity can be both a product, such as a new invention, and a process, such as the methods by which new thinking is achieved (Amabile, 1996).

Creativity can also be expressed as a social as well as an individual phenomenon (Lave & Wenger, 1991). Those creating the Large Hadron Collider, for example, assembled a group of people from many disciplines and from all over the world; a creative team brings with it many potential interactions and possibilities for new thinking, (Brown & Duguid, 2000).

Creativity exists in every walk of life and in every subject discipline (Runco and Pritzker, 2011).

2

THE DURHAM COMMISSION'S RECOMMENDATIONS

Teaching for creativity through system leadership and collaboration

Realising the Commission's vision for creativity in education is a challenging task. It begins with enabling schools to establish and sustain the conditions for nurturing creativity. This requires the right balance of:

- Building on skills, knowledge and understanding already acquired
- Structure that encourages discipline, practice, and rigour
- Opportunities for learners to problem solve, experiment, take risks, make mistakes, try again
- Giving learners space for self-directed learning

For such conditions to exist school-wide, and indeed nationwide, we need:

- School leadership and governance which understands and values creativity in all subjects and phases – and which has the resources to promote it
- Excellent subject leadership and teaching based on rich subject knowledge and understanding, which plans for students' progression and their development over time
- System leadership which enables schools to collaborate in their implementation of such practice, backed by resource and research

School-led improvement of this nature has already gained notable traction and influence through DfE-supported programmes such as Teaching Schools and Maths Hubs. At its best, such school-led system leadership is successful because it works within the grain of the system: led by teachers for teachers, advised by education research and evaluated with rigour, rather than being imposed upon schools.

To deliver this improvement, the Commission recommends the establishment of Creativity Collaboratives in which schools work together to develop best practice in teaching for creativity.

Recommendation 1:

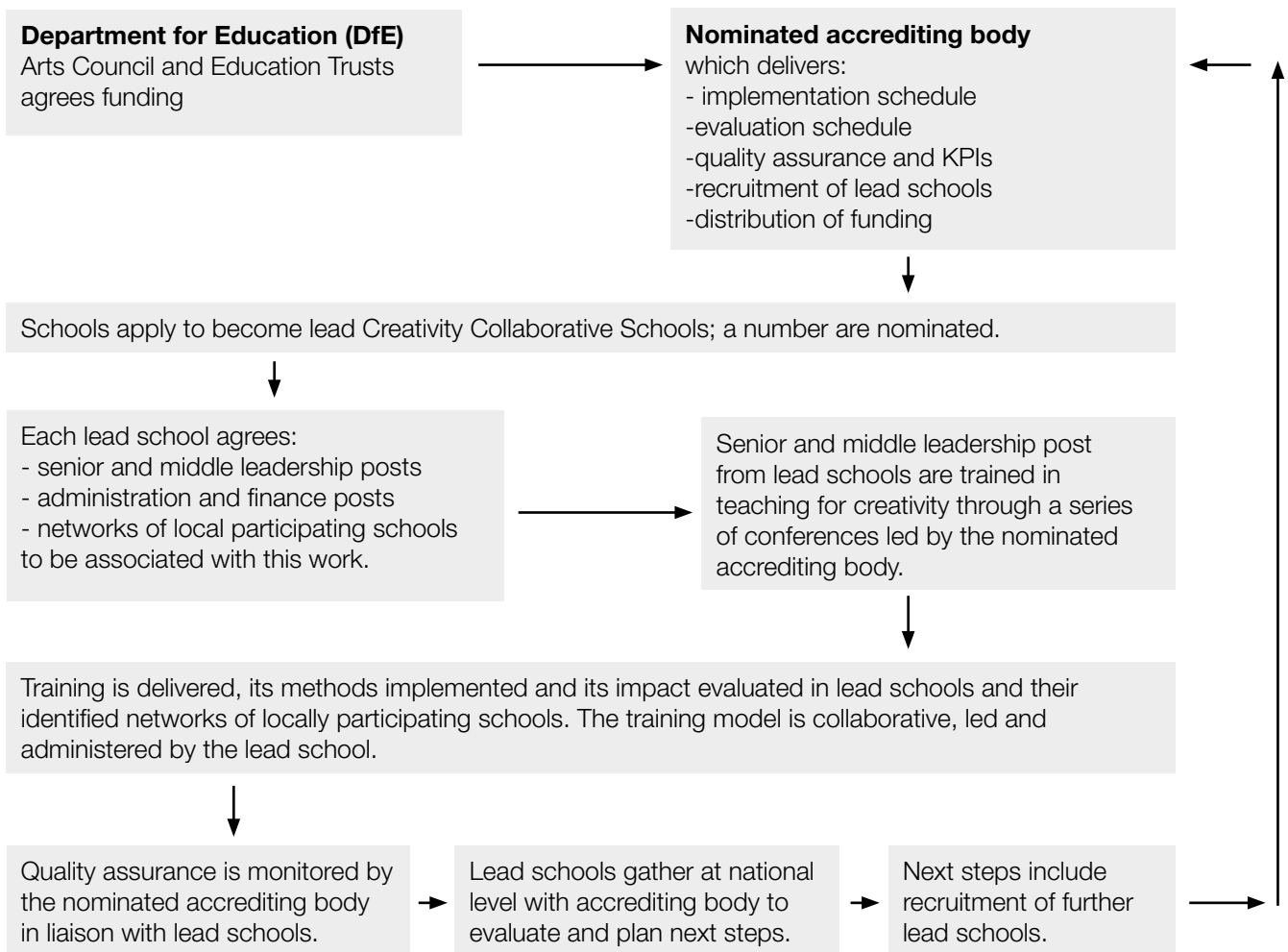
A national network of Creativity Collaboratives should be established, in which schools collaborate in establishing and sustaining the conditions required for nurturing creativity in the classroom, across the curriculum. This will involve:

- **A three-year pilot of nine Creativity Collaboratives, one in each of the DfE regions. Evaluation of the pilots should**

inform the creation of a national Creativity Collaboratives network from 2023.

- **Funding for the pilot Creativity Collaboratives from a consortium including DfE, Arts Council and educational trusts. The period of the pilots should be used to explore the possibility of attracting funding from partnerships between DfE, industry and commerce.**

The Creativity Collaboratives: a model for delivery



Furthermore, for creativity to be established in all schools, the Commission recognises that teachers need their practice to be guided and supported by their school's leadership and governance. It is not enough for a few individual teachers in a school to practice great teaching for creativity within their own classroom. If it is to flourish across the whole school, a voice for creativity is needed.

Schools that value creativity should nominate a champion for creativity. This role would require an understanding of teaching for creativity and the ability and resource to promote this across the curriculum. This champion should have a voice at the level of senior leadership and exposure at the level of school governance.

Barriers to teaching for creativity

In its conversations and research, the Commission found significant concern that the nature of the teaching and learning process in the school system at present can constrain the fullest development of creativity. Reasons for this include the accountability and performance tables, curriculum content and teacher capacity. Also mentioned was a view that in some schools, teaching from a young age is focused on developing the technique of answering exam questions over deep understanding of key concepts and processes in a subject.

This style of teaching reduces opportunities for genuine scholarship, craftsmanship, a fascination with ideas and absorption in a discipline, all of which are key conditions for the development of creativity.

Recommendation 2:

Government, Ofqual and the awarding bodies should work together over the next 2-3 years to consider the role of examinations and how scholarship and craftsmanship are recognised and rewarded in assessment frameworks.

Recognising the value of creativity

The Commission welcomes the new focus of the Ofsted inspection framework on a broad and balanced curriculum. Both a rich curriculum and academic rigour can be enabled by the same conditions in which creativity is nurtured. Creativity is not at odds with academic rigour; indeed, each can nurture the other. Recommendations 1 and 2 would support schools to develop a curriculum that supports and benefits from creativity. The Commission proposes that excellent practice in this regard should be celebrated.

Recommendation 3:

Schools that have successfully established and sustained conditions in which creativity is nurtured should be recognised and encouraged. Such success should be recognised in the Ofsted inspection process. Ofsted should share good practice

case studies of teaching for creativity in a range of subjects and across phases.

Ofsted should also continue to refine its inspection framework to further reduce incentives to ‘teach to the mark’ and make clearer that it is looking for teaching for scholarship and craftsmanship, not merely exam-passing.

Evaluating the impact of creativity

Internationally, there is growing recognition of the need for embedding creative thinking and creativity within education systems. However, measuring impact is complex, because creativity and the creative process varies by discipline, and no single test is sufficient. The Commission is also wary of the imposition of systems for measuring creativity in ways that are counter to the very nature of creativity and would inhibit its development.

A range of approaches and methodologies should be considered as part of the work of the Creativity Collaboratives. On a national and international level, it is important that the UK is involved in international research and development associated with creativity, in order to inform practice in the UK, to influence the associated methodologies and to demonstrate how creativity is valued in England. One such opportunity, which makes no imposition on practice in schools, is the creative thinking optional element in PISA 2021. A framework is currently being developed by the Organisation for Economic Co-operation and Development (OECD) in which England should take part.

Recommendation 4:

The DfE should support English schools’ participation in PISA 2021 evaluation of creative thinking in order to influence and shape future use of the framework.

The establishment of the Creativity Collaboratives should create opportunities for schools to trial a range of research-informed approaches to evaluating students’ creativity without impeding their creativity in so doing. A number of higher education institutions have begun research in this area and the Commission believes they should be encouraged to work with schools to develop such practice.

Recommendation 5:

Higher education institutions, in conjunction with the DfE, should work with the Creativity Collaboratives to develop research-informed practice to evaluate creativity, looking at how creativity and creative thinking can be identified across disciplines, and how its impact can be measured.

Digital technologies, creativity and education

Digital technology is revolutionising the way we live and work. But for young people these digital technologies extend existing everyday interactions, which brings risks as well as opportunities. It is widely recognised that online engagement allows new forms of testing and independent research, yet the digital ecosystem can also be perilous for young people and often promotes individual forms of interaction that threaten group and community-based learning practices. Schools have the responsibility to educate their young people in staying safe and to promote new skills about collaborative learning and sharing. The educational environment, however, should also be one in which the opportunity for creative use of digital technology is nurtured and supported.

Addressing this has implications for Initial Teacher Education (ITE) and teacher Continuing Professional Development (CPD). The Commission therefore welcomes the investment by DfE in the National Centre for Computing Education (NCCE) to improve the skills of the teaching workforce and NCCE's work to redress the gender imbalance in take-up of computer science. In addition, the Commission recognises that the new DfE EdTech strategy will support the use of technology across the curriculum. Adults working in schools should feel confident and knowledgeable about the creative opportunities available to young people.

Recommendation 6:

The education system should support young people to engage creatively and critically with the digital technology that is now a significant part of their everyday lives. To achieve this:

- **The DfE should seek additional funding for training for teachers in digital literacy and digital creativity, with time and resource committed to it.**
- **Nesta should manage a pilot programme working with education, business and the cultural sector to explore how digital education in schools can develop the creative digital skills most in demand by employers.**

Creativity and the arts in schools

The Commission received strong representations from those working in maths, the sciences and humanities stating that creativity is as important in these subjects as they are in the arts and that opportunities for nurturing creativity should be championed in all subjects.

This is consistent with the Commission's belief that creativity makes a valuable, indeed vital, contribution to learning in all subjects. In turn we have heard that music, dance, drama, art and design all require the acquisition of technical skills, subject knowledge and understanding alongside opportunities to express and explore creative thinking.

The Commission concludes that the arts do have a distinct contribution to make towards nurturing creativity and has serious concerns about the decline in the provision and uptake of arts subjects in schools. When students' experience of subjects such as art and design, dance, drama and music is limited or indeed non-existent, they become the province of the privileged, whose families can afford to give them access to the experiences of art and culture. Young people from disadvantaged backgrounds and students attending state schools deserve rich and varied experiences of excellent arts and cultural education. To deny them this is not only educationally limiting but socially and morally unconscionable. It reduces the likelihood of students from disadvantaged backgrounds building the kinds of creative skills they need now and in the future.

Recommendation 7:

Arts and culture should be an essential part of the education of every child. To achieve this:

- **DfE should establish a funded National Plan for Cultural Education which ensures all children access cultural opportunities in school alongside the new Plans for Music Education and Sport.**
- **DfE should require schools to offer a full national curriculum at all key stages but in particular at KS3 until the end of year 9. This should include the arts as a substantive part of the curriculum, not as an add-on.**
- **The Artsmark scheme should be reviewed by Arts Council England to ensure the value of creativity, arts and culture in schools is recognised.**
- **In support of the above, the Arts Council should work with DfE to review the provision of professional development opportunities for teachers in arts subjects and for the cultural workforce and freelancers who work with schools.**

Creative beginnings: pre-school and the early years curriculum

Evidence from psychology, education and neuroscience shows that children's educational experiences in their early years are crucial in underpinning the development of skills that will last for a lifetime.

Positive creative interaction with adults – whether parents and carers or early years workers – will give children a strong foundation for their formal education.

There are numerous examples of good practice in the early years sector, but the quality and scale of provision varies across the country.

To ensure all children in the early years are being encouraged and stimulated to explore and think creatively, the Commission proposes that organisations including DfE should develop a highly skilled early years workforce and a rich early years curriculum with teaching for creativity as a key component.

In addition, the Commission welcomes initiatives that support parents and carers to develop opportunities for creative learning in the home environment. There are already many excellent resources being produced by media and broadcasting organisations, and we would like to see these built upon.

The Commission's recommendations supporting the wide encouragement and application of creativity and creative thinking should therefore be underpinned by a robust approach to the development of creativity in early childhood.

Recommendation 8:

The purpose and place of creativity and teaching for creativity should be recognised and encouraged in the early years (0-4).

To achieve this:

- **The DfE should integrate creativity into the Early Learning Goals within the Early Years Foundation Stage, to be operational from 2021.**
- **The DfE should establish and fund effective training and CPD for the pre-school workforce, reviewing current Continuing Professional Development opportunities, qualifications and entry routes to the sector by 2021.**
- **The BBC, other media and broadcasting organisations and the DfE, should further develop quality early years content that encourages young children's creativity alongside literacy and language development.**

Creative opportunities out of school hours

Lack of creative out of school activities can widen the gap between those children whose parents can provide these opportunities, and those whose parents cannot. Every child should be able to engage in a creative activity when formal school is closed, in the evenings and at the weekend.

Recommendation 9:

The Commission believes that in-school opportunities to develop creativity should be complemented by diverse routes to take part in creative activities outside of school hours.

To achieve this:

- **The Arts Council, working in partnership with youth sector organisations and social services, should align and build on existing out of school opportunities to be creative in the arts, sciences and humanities. This should include the work of Saturday Clubs, Music Education Hubs, existing Arts Council programmes which support out of school hours activity, and the National Citizens Service.**

Beyond school: creative opportunities and experiences in the world of work

The Commission has recognised the demand from business, industry and commerce for young people to be able to think creatively. Creativity is now a much sought-after capacity in the world of work. The links between creativity and economic output are widely recognised, with creativity valued as a driver of growth.

However, the model of lifelong, single-career employment is vanishing. Automation, digital communications and artificial intelligence are reshaping the economy, and creativity will be all the more valued in the future workforce. Young people are likely to work for longer and change careers more often than previous generations. Students' experiences at school must anticipate the changing nature of the world of work.

Recommendation 10:

Young people should be better prepared for the changing world of work. They need the creative capacities that employers seek and which will enable them to be resilient and adaptable, to pursue portfolio careers and engage in lifelong

learning. Qualification frameworks should reflect the value of creativity for the current and future workforce.

The Institute for Apprenticeships and Technical Education should review the current opportunities for developing creativity as a key capacity in emerging T level qualifications and existing Apprenticeship Standards.

These recommendations have been developed by the Commissioners on the basis of the evidence gathered through the activities of an interdisciplinary team at Durham University, supported by academics and practitioners across the UK.

3

THE VALUE OF CREATIVITY

The Commission has undertaken a wide-ranging review of attitudes towards creativity in daily life and the workplace. There is agreement that creativity makes a vital contribution to success in all aspects of our existence. Most people think of it in positive terms, even when they doubt their own capacity to express creativity. Too often creativity is regarded as a gift that is possessed by a few exceptional people, though in practice groups working collaboratively often generate unexpected results that they recognise as ‘creative outcomes’.

“The UK is well known for being a country that is able to produce freethinking people who can problem-solve and invent. If we don’t get it right, then we’re going to lose that.”

Headteacher, West Midlands, Academy, Secondary & 16+

People tend to therefore value creativity and its companion ‘resilience’, even when they are uncertain about how it is generated. Employers increasingly cite ‘creativity’ as one of the qualities they seek in recruiting staff. Creativity will be a key capacity for children and young people if they are to meet the challenges of the future. It is also increasingly valued in relation to the development of individual and collective identity, mobility and wellbeing.

Lola Media & Erica Wolfe-Murray

Erica Wolfe-Murray is a leading business and innovation expert. Her company Lola Media has been highly successful in helping businesses to expand by building resilience through imaginative evolution of revenue models, ways of working and contracting.

She believes creativity should be applied across all aspects of business, but that many people she works with are held back because they don’t see themselves as creative. In her view, education needs to encourage students to possess knowledge and to think about how knowledge is produced, to think critically.

She told the Commission: “This notion of creativity is fundamentally locked into one sector, when in fact I think that it can be really, really richly exploited and exploited in the best and worst ways and so many ways as a society and country...Creativity is both the vision and the steps to get there. So how do we make creativity the complete bedrock of what we do? And how we think about education? And accountancy, and science, and more. Creativity has to be the bedrock of it...”

3.1 Identity and community

Creativity and the individual

The Commission's research showed that individuals are regarded as demonstrating creativity by: thinking beyond traditional norms; seeing things from different points of view; thinking laterally; making unexpected connections and identifying relationships; and thinking or making something new.

Throughout our research, the words most frequently associated with the exercise of creativity were imagination, freedom, expression, collaboration, and problem solving. The research findings also highlighted the importance of curiosity, perseverance and resilience.

Creativity was thought to embrace curiosity and intellectual restlessness, a tolerance for uncertainty, risk, and ambiguity, and the ability to be adaptable and flexible. The ability to communicate effectively and share with others, especially with audiences that might be different from the communicator, can also be characteristic of creative people. Creativity can be linked with products or outcomes; it can also be identified simply as stages in a process or journey.

The Commission also found that creativity and creative thinking can flourish across all domains of life, phases of development and subjects of the curriculum – if the conditions and environments are supportive. These environments should facilitate active participation and be spaces to think, play, to take risks, to solve problems and to make.

Creativity and creative thinking flourish in environments where critical thinking is also encouraged, and they were also associated with discipline, concentration, focus and tenacity. Freedom to take risks was regarded as necessary for the development of creativity, but constraint can also be an enabler.

Beginning in early childhood, opportunities for free play, exploration of outdoor environments and interaction with other children and with adults, whether parents, carers or early years workers, were all seen as being key to encouraging creativity.

The confidence-building resilience of creative learning is supported by having space for 'safe failure', critical reflection, and trying again, which are an essential part of the process of growing up.

“We say to our children, ‘Fail means first attempt in learning,’ and we try to promote that idea, because it means that you’re making mistakes, you’re learning from them and you’re taking another step forward.”

Headteacher, Eastern, LA-maintained school, secondary

Wingate Community Nursery School

Wingate Community Nursery School is an OFSTED outstanding-rated, Durham County Council-maintained nursery school in East Durham. Its staff are skilful, highly trained educators, who are knowledgeable about how children learn and about child development and care, and have a passionate commitment to the nursery and its values.

The creativity of children, staff and also teachers is at the heart of Wingate's practice. By working in partnership with parents, they aim to provide a stimulating, challenging environment which is a warm, friendly extension of home. Children and adults can explore, have fun, play, talk and learn together, developing as happy, confident and independent individuals within its community. The nursery is a 'laboratory of possibilities'.

Wingate considers childhood as a stage of life in itself, not solely as a prelude to later stages in life, and considers children to be competent, capable and powerful. The nursery shows a commitment to children leading an active, healthy lifestyle through the design of its holistic learning climate and emphasis on outdoor learning. The Durham Commission was very impressed with the care and attention given to children's wellbeing, the importance to the nursery of the relationship with the local community which it serves, and the way in which children are encouraged to collaborate with, and to support, each other.

Wingate Community Nursery is also a beacon of excellence for training the early years workforce. Its staff have shared practice with other schools and settings nationally and internationally for 13 or more years, delivering key note speeches and workshops at conferences, setting up school development partnerships to support colleagues 'making change', and hosting visits to observe and discuss practice.

Overall, creativity is associated with attributes that facilitate personal growth and the development of well-rounded, confident individuals with a strong sense of self.

Collective social engagement

The value of creativity in promoting social engagement, community identity and cohesion is strongly associated with the concept of creative placemaking, in which civically engaged individuals come together to create shared public spaces that encourage engagement, wellbeing, and a locally focused quality of experience in their communities.

Creative placemaking has long been closely connected with the role of arts and culture in society, which are seen as intrinsically social means for collective or individual enjoyment, providing space for debate, sharing of and respect for multiple perspectives, building community confidence, and establishing pride in local identity.¹

These cultural resources are most effectively used when local leaders take a strategic approach, encouraging a wide range of institutions to work with the arts and cultural sector to help improve civic life.

Recently, there have been several significant developments that recognise the role of creativity in relation to placemaking. The 2019 Cultural Cities Enquiry proposed the formation of City Compacts, in which culture and creativity are used as catalysts in a common local strategy for development that brings together civic institutions, businesses, health providers, transport and schools, colleges and universities. The 10 compacts now under development include Nottingham and Bournemouth, Christchurch and Poole, as well as rural communities such as Lancaster and South Cumbria.

In Nottingham, the Compact's Plan will forge new pathways for the creative talent that emerges in both formal and non-formal learning environments. The Compact has a clear aim to give citizens creative skills, and use their creativity to support civic engagement in the city alongside business growth.

In Bournemouth, Christchurch and Poole, the Compact's ongoing Cultural Enquiry is developing a vision for its changing population that will address the area's underconnectivity and cultural stasis and will cover wellbeing, inclusive growth, the economy, environmental sustainability and the need for a talent ecosystem alongside better cultural awareness and opportunity. It will join up education, business, healthcare, transport, planning, the environment and tourism.

Alongside local authorities, the further and higher education sector has an increasingly important role to play in placemaking and local creative economies. The Civic Universities Commission (2019) has recently drawn attention to the fact that there are mutual interests in human capital, skills development, creativity and innovation, cultural consumption and economic development. These can be seen in three distinct areas:

- Impact on the cultures of place, through their contribution to the infrastructures of cultural participation, consumption and production.
- Contribution to local economic development, through regeneration and employment, innovation and incubation.
- Collaboration with local partners in co-producing the knowledge economies of place (Comunian & Gilmore, 2015).

From its research, the Commission concludes that creativity and creative thinking can help young people to develop the imagination and empathy to care for each other and their communities. Young citizens should be able to recognise needs and solve problems, understanding the strengths that grow from diversity and shaping strong communities that are formed from many points of view.

3.2 Mobility

The Commission's research reveals the importance of creativity and creative thinking to individual and collective mobility, both in terms of social mobility and national economic growth. A Britain with global reach and outlook will need to be a creative Britain, requiring individuals appropriately skilled to meet the changing nature of employment.

Most forms of work have been influenced by expectations about what can be achieved with knowledge and skills in digital technology, and automation has replaced some roles. Young people will need the resilience and confidence to be self-starters, and to work across different sectors and careers while the ability to analyse, make connections, collaborate across disciplines, and adopt new approaches to challenges will be in demand from employers and business across all sectors.

“One of the things I hate in education is when people talk about preparing children for life, but they're living life now. I think the face of what we are preparing children for in terms of work is changing all the time. Just giving them a body of key stage two curriculum is not going to be enough when they go in to secondary. Likewise, key stage three, four and five curricula will not prepare them to be successful as adults, because they're going to be up against technology that doesn't exist yet, so we have to be open to creativity.”

Headteacher and governor, All-through school, Independent, London

Economic growth

In recent years the creative industries have showed the fastest growth of any sector: this is a significant economic success story. The creative industries are usually defined as: advertising and marketing; architecture; crafts, design; film, TV, radio and photography; IT, software and computer services; publishing; museums, galleries and libraries; music, performing and visual arts. The Government described them as 'flying the flag for the best of British creativity at home and abroad' and being 'at the heart of our economy'. The review of the creative industries by Sir Peter Bazalgette similarly recognises the importance of creativity.

“The skills and business models of this sector and the wider creative economy are those which many experts judge to be of increasing importance: blended technical and creative skills; collaborative interdisciplinary working; entrepreneurialism and enterprise.”

(Bazalgette, 2017)

Welcome and important as this success is, the Commission argues that creativity and creative thinking are of benefit to the economy as a whole, not only to the creative industries. Leaders in all forms of business speak of the potential for creative thinking to transform the whole economy, and help mitigate some of the most rapid changes affecting society.

In 2012, the Confederation of British Industry (CBI) suggested that the UK should produce a clear, widely owned and stable statement of the outcome that all schools are asked to deliver, going beyond the academic into the characteristics, values and habits of mind that schools should encourage in all they do, including attributes such as tenacity, curiosity, zest and creativity (CBI, 2012). More recently, the CBI has gone further and suggested that the curriculum needs to be rebalanced to focus equally on three ‘pillars’ – character, knowledge, and skills – if children and young people are going to emerge from school work-ready (CBI, 2019). The development of creativity, the CBI argues, is ‘essential for entrepreneurship and innovation’.

The CBI’s intervention signals a consensus between employers and educators about the value of creativity. Increasingly ‘businesses are clear that first and foremost they want to recruit young people with attitudes and attributes such as resilience, enthusiasm and creativity. They are not selecting simply on the basis of academic ability’ (CBI/Pearson, 2016).

Peratech & Jon Stark

Jon Stark is CEO and Director of Peratech, a company that provides touch and force-sensing solutions to more than a million devices across the world, in areas such as smartphones, electronic whiteboards, cordless drills and NASA robots.

Peratech tests potential employees for their creativity, looking for the ability to abstract current knowledge and synthesize new ideas from past knowledge or experience, and devising straightforward ways of testing assumptions.

In Stark’s view, problem-solving and managing uncertainty are missing from current models of education. He thinks creativity is not only about the content of the curriculum: it’s about approaches to teaching, and recognising that there are parallels to how you apply skills across, say, art and engineering.

Stark told the Commission, “We use creativity to create and improve everything we do; we use creativity to solve problems, and we use it to find new ways to work together...creativity is literally in everything we do. The ability to communicate and tell a story is a key to sharing a vision.”

The Commission's evidence supports the CBI's findings, showing that creativity and creative thinking are important across many businesses, especially entrepreneurial small or medium sized enterprises (SMEs).

Creativity and entrepreneurship are considered to share certain attributes, including agency and the creation of novelty and value. In addition to needing creative employees, creativity is also one of the core components that enable an entrepreneur to develop a successful venture (Okpara, 2007).

The UK Innovation Survey (2013) highlighted there were 2,925,600 SMEs in 2017, a 3.3% year-on-year increase from 2016 and a 14.7% three-year increase from 2014.² In 2017 alone, there were approximately 58,000 tech start-ups in the UK – a new tech business every hour.

Self-employment and the 'gig economy' are also growing. The TUC (2019) found that 'nearly 1 in 10 (9.6%) working-age adults surveyed now work via gig economy platforms at least once a week, compared to around 1 in 20 (4.7%) in 2016.'³ This equates to 4.7 million adults. This is a fundamental change in working practices. Where there are no jobs for life, young people will need to exercise their creativity and the creative thinking associated with adaptability, resilience and a commitment to life-long learning.

The UK's creative industries saw GVA increase by 7.1% between 2016 and 2017, around 50% faster than the UK economy as a whole, which grew in GVA by 4.8 %.

They currently generate £101.5 billion for the UK economy and are also very significant in terms of their influence or 'soft power' (Culligan et al., 2014).

The Centre for Economics and Business Research found that arts and culture alone were worth £10.8 billion to the UK economy in 2016, greater than the value of agriculture. This constituted a growth of 19.5% over three years, outperforming the UK as a whole, as well as the average for both manufacturing and services sectors. Arts and culture also outperformed real estate activities, electronics manufacturing, civil engineering, construction and legal and accounting activities.

In particular the UK's gaming industry is flourishing. In 2016, the UK gaming market had a monetary value of £4.33 billion and its impact on other sectors, such as films and merchandising was £100.5 million. PwC have predicted that by 2021, the UK market will be worth £5.2 billion, growing at a rate of 6.7% and making it Europe's largest.

The success of the creative industries is producing models, such as creative clusters, that can influence the development of the wider economy. Like the wider economy, they can also feed back productive ideas and practice into the process of teaching for creativity.

In 2016, scientific research and development (not including education) contributed £9.9 billion GVA to the UK economy.⁴ Creative interdisciplinary work can help drive innovation across research and industry, encouraging scientists, engineers, designers and entrepreneurs who are attracted by the scale of a challenge, and have the confidence to take risks. The increasing reliance on technology by businesses and society as a whole further highlights our need for more creative thinkers.

Creative competencies and employment skills

In a 2015 World Economic Forum Report the top four competencies required for students to approach complex challenges were found to be critical thinking, creativity, communication and collaboration. The importance of creativity and creative thinking has also been emphasised by global business bodies like UNESCO; international educational bodies like PISA, and the OECD. In the UK, the CBI has recognised the importance of creativity to our economic future as does the All Party Design and Innovation Group. According to The Economic Graph (a digital representation of the global economy based on 590 million LinkedIn members, 50 thousand skills, 30 million companies, 20 million open jobs, and 84 thousand schools) creativity is the second most desirable competency in an employee (after cloud computing).

Education needs to do more to meet the country's need for creative skills. Shortages of workers are forecast unless we can equip young people with the right skills needed to meet the changing work environment (Edge Foundation, 2018). Our education system must address these skills gaps by developing creative thinking and practice in schools. Such skills have a clear value for both further and higher education as well as for employability (Gutman and Schoon, 2013). Sorrell, Roberts and Henley (2014) found that literacy, numeracy and creativity are the three central pillars of any strong education offer.

Developing these skills will facilitate long-term employability, and upward social mobility; they will also have a national impact: OECD research claims the UK could boost its productivity by 5% if it reduced the level of skill mismatch to OECD best practice levels (OECD, 2015).

It is also recognised that key skills for generating productivity and stimulating economic growth are associated with creativity. The recent publication by Policy Connect and the All Party Design and Innovation Group (APDIG), *Developing Creative Education after Brexit: A Plan for Economic Growth* (Policy Connect, 2018), explicitly argues for creative thinking to be prioritised.

East Education

East Education is a major initiative that will ensure children and young people benefit from the unprecedented growth of creative and knowledge-driven organisations centred on and around the Olympic Park. From 2022, the BBC, Sadler's Wells and the Victoria & Albert Museum and the Smithsonian Institution will join University College London and University of the Arts London's London College of Fashion (LCF) at Queen Elizabeth Olympic Park in Stratford, as part of one of the largest concentrations of digital and creative enterprises in Europe. East Education will open-up creative learning and opportunity which will increase social capital for young people in East London. The objective is for children and young people in an area of high youth deprivation to benefit from the proximity of high-tech, creative and knowledge-driven organisations in and around the Park and in so doing realise the ambition of East Bank as an engine for positive economic and social change. Partnership and collaboration across a number of East London boroughs will engage young people, parents, teachers, school leaders, further education and higher education institutions and local authorities, as well as a diverse range of cultural, creative and community organisations and employers.

Areas of focus will include:

- East Education Leader Schools – a cohort of local leaders will 'sign up' to work together over the next five years to co-design a radical new approach to creative education. They will serve as a hub for innovation, testing dynamic curriculum approaches and building a new approach to education across East.
- Investment in teachers – new approach to teacher CPD which makes use of shared resources, establish peer learning networks
- Out-of-school offer – developing East Bank 'after school' Clubs (eg LCF Fashion, S Wells Dance, UCL architecture/engineering etc), East Bank Summer School
- Qualifications – new creative units/qualifications

The Commission concludes that such skills are integral for future individual and collective success, but that there is a disparity in opportunities for children and young people to develop them. If creativity and creative thinking are necessary capacities for young people, then the Commission believes that their universal provision should be a matter of strategic concern *and* social justice.

North East Automotive Alliance and Eddie Leng

The North East Automotive Alliance (NEAA) is an industry-led cluster group, established to support the economic sustainable growth and competitiveness of the sector in the North East of England. Launched in March 2015 and now with over 300 cluster participants, the NEAA is the largest automotive cluster in the UK and one of the fastest growing clusters across Europe. The North East of England accounts for a third of all UK car production, with sales of over £11 billion, employing 30,000 directly and impacting a further 141,000.

Today, the North East accounts for 26% of all electric vehicle production across Europe and boasts a significant and growing reputation for investment into research and development, and new and emerging automotive technologies. Eddie Leng is an organisational training and development practitioner who joined the NEAA with 30 years' industry experience as Project Manager.

Eddie identifies severe skills gaps in the industry that he represents. He believes the cultivation of creativity through young people's education from primary education to university is essential for engineering and manufacturing, and frameworks such as the EBacc are too restrictive.

He welcomes the study of art to GCSE as it helps learners to think visually and he believes that young people need opportunities in school to generate their own ideas and to collaborate. Project work, which can become rarer as students progress through school, is very effective at delivering this.

He thinks that better career advice and more industry involvement in schools is badly needed, as young people are not being given the opportunity to make choices at the right times in their life. He has seen potentially brilliant female engineers in primary school who are lost to the industry by the age of 13 or even 11.

Automation

As we enter what has been called the Fourth Industrial Revolution, automation, algorithms, artificial intelligence and machine learning will bring great changes to all forms of employment. Research shows that as industry and other forms of human activity become increasingly permeated by automation, artificial intelligence and big data, creativity and the capacity to think creatively will become increasingly important (Bakhshi et al., 2015).

Jobs that require repetitive tasks and which can be automated are disappearing and will continue to disappear.⁵ McKinsey estimates that half of today's work activities could feasibly be automated by 2055, with predictable and repetitive processes being the first to go (Bughin,

2018). Aspects of professional disciplines such as law, medicine, finance or even education are becoming more efficiently conducted by machines, freeing up more time for creativity and deep thinking.

The most difficult tasks to automate are those that are highly interpretive or whose outcome is not precisely defined. Tasks which ‘involve managing and developing people or that apply expertise to decision making, planning, or creative work’ are also more resistant to automation.

Centre for Cities estimate that 1 in 5 existing jobs in British cities are likely to be displaced by 2030 as a result of automation and globalisation – amounting to 3.6m jobs in total. This is more pronounced outside of the south of England: “around 18% of jobs are under threat in southern cities, compared to 23% in cities elsewhere in the country”.

Creative occupations (encompassing jobs such as software development or biochemical engineering, not solely jobs in the ‘creative industries’) are in general more resistant to automation and are thus likely to employ a larger share of the human workforce in the future (Chui et al., 2016). CEOs surveyed by PriceWaterhouseCooper reported that as they anticipate an increasingly automated workplace, the human skills that they will most prize are ‘problem-solving, adaptability, collaboration, leadership, creativity and innovation’ (PwC, 2018).

To be prepared for a more automated future, the current and future workforce should be comfortable working alongside technology (Bakhshi et al., 2017), as well as being equipped with skills which are difficult for machines to replicate. The Commission recommendations call for the school curriculum to prepare children for work practices and disciplines that will dominate the automated work environment.

IBM & Rashik Parmar

IBM is a global cloud and cognitive solutions company and one of the world’s largest innovators and technology employers.

Rashik Parmar MBE is the Vice President Technology (Europe) and an IBM Fellow. Rashik foresees a transformation in the nature of industry and the workforce resulting from technologies of artificial intelligence. As IBM’s CEO Ginni Rometty has said many times, AI is going to transform 100% of jobs. ‘New collar jobs’ will need both technical skills and the ability to think creatively, but not always a traditional university degree. Students and workers

will need skills to work with data, AI and analytics, combined with the capacity to collaborate and to tell stories, to augment the technology with connectivity and intelligence.

For Rashik, the Commission is an opportunity to shine a light on a better future: we will need a workforce that is both creative and diverse, and that is continually learning, so that we can build a world where the benefits of innovation reach the many, not just an elite few.

He told the Commission, “we need creativity to reimagine the art of the possible, to have a positive impact on people’s lives ... [and] we need diversity in our creative workforce – if we are designing the way that the future will look we need representatives of all the people who will live in that future to do so”.

3.3 Wellbeing

The Commission looked at the evidence that creativity has value in generating capabilities and behavioural attributes contributing to wellbeing, happiness and the development of the whole person.

“We’re thinking, rational, physical, aesthetic creatures – we’re not purely academic. We are rounded complete individuals. And to deny the opportunity therefore for creativity in an artistic, in an aesthetic and cultural sense, is, in essence, to deny someone an aspect of their humanity.”

Headteacher, London, Academy, Secondary

The connections between personal fulfilment, wellbeing and creativity are well documented. Maslow (1943, 1968) suggests that creativity or ‘creativity’ is a facet of self-actualisation which itself sits at the top of his well-known hierarchy of needs. Human beings, he argues, have certain basic needs such as food, water, shelter and sleep. But to be truly fulfilled they need to realise their true potential, their full creative selves as adults as well as children.

Creativity can shape a holistic, life-long approach to health and wellbeing. Creative activities can be shared and a means of self-realisation; they can help with physical fitness and emotional resilience and can contribute to needs at different ends of the age scale – we now see young people in primary schools struggling with mental health and loneliness. The rise of technology has also been attributed to poorer mental health, although it brings with it opportunities for creative expression which itself drives wellbeing.

City of Dreams

City of Dreams is a strategic initiative led by Newcastle Gateshead Culture Ventures consisting of 10 cultural organisations running 20 cultural venues in the city and supported by 40 organisations representing education, culture, young people and community charities, local councils, and health services.

Its aim is to make Tyneside the best place in the UK to be a young person. The initiative is implementing a strategy, informed by the voices of young people in the region, to ensure equal access to the benefits of engaging with the city's range of cultural venues and opportunities for all young people up to the age of 25. A survey in 2018 with children and young people asked what they liked to do in the city, and why. The response was that creative activities help stimulate confidence, identify new skills and talents, and give young people a voice. The survey also identified that some people don't have access to these opportunities – due to either financial or familial constraints – and that some young people do not have the confidence to take part. The strategy, written in collaboration with almost 1,000 young people, is aiming to ensure that all young people can access all opportunities and overcome existing barriers to the best the city can offer. This will encourage creative confidence, the development of skills, and, ultimately, enjoyment, wellbeing and resilience for young people in the region.

Each year across the 10 years of this strategy, from 2018-2028, City of Dreams will talk to young people, giving them the chance to contribute to the strategic direction of cultural organisations in the city and a sense of ownership and pride in their local community.

The various aspects of creativity work together. Playfulness and pleasure encourage creativity and are likely to help deliver better social, emotional and economic outcomes. Creativity stimulates agency and a sense of empowerment, and when associated with play, engenders happiness, a sense of fun and enjoyment in learning that is vital for wellbeing.⁶

Participation in cultural and creative activities has been shown to improve wellbeing (Conner et al., 2018; Fujiwara et al. 2014; Marsh et al. 2010), and there is mounting evidence that creativity and the arts can make a significant difference to people's health and wellbeing, as well as to how they feel about, and interact with, their neighbours (Ings et al., 2010).

Mental health

There is currently great concern about the wellbeing of young people, with school students reporting low levels of mental health.⁷ According to a recent Varkey Foundation survey (Broadbent et al.,

2017), young people in the UK have some of the poorest mental wellbeing in the world, with only Japan identifying worse levels of stress and anxiety among its young.

“One of our aims was to improve mental health, and it is shocking how lacking in confidence lots of young people are, and I can’t help feeling that creative arts offers opportunities to build confidence... So, I do see creativity as a route into healthier lifestyles and more balanced individuals.

I think there’s a risk to the wellbeing and mental health future prospects of young people if we don’t do something with them that they enjoy and that taps into the creativity that’s within them all...”

Headteacher, West Midlands, Academy, Secondary & 16+

A number of developments and programmes highlight the critical issue of child and adolescent mental health and the potential help creativity offers.

- The UK Youth Parliament has called for an improvement of mental health services led by young people along with the placement of such services in schools.⁸ They also advocate a shift in education practice to deliver on compulsory health education, promoting inclusion of the voice of young people and supported by creative thinking and creative expression.⁹
- All-Party Parliamentary Group for Arts, Health and Wellbeing, informed by the 2017 Creative Health report, met in February 2019 specifically to discuss the arts and child/adolescent mental health, including within and outside of schools.¹⁰ There was a strong consensus about the contribution of creative activity and self-expression to building confidence and resilience, as well as the use of creative interventions and activities in addressing specific challenges such as depression and anxiety.

These findings are supported by comments from young people. Arts Council England undertook a consultation with more than 1,800 young people aged 5-25.¹¹ A clear message was that participation in creative and cultural activity is fundamental to their lives, sense of self and wellbeing.

“I think culture gives people a sense of centering in terms of identity. I think culture informs identity and vice versa, identity informs culture but I think that culture as a communal thing is important especially because it gives you a sense of belonging, and idea of who you are and where you stand.”

Interviewee¹²

The Time to Listen (TALE) project demonstrated that young people feel that engagement with the arts promotes a sense of personal wellbeing.¹³ Nearly half of young people surveyed (45%) say that the arts help them relax and reduce stress. This is particularly the case for young women (53%) and for sixth form students (49%).

Although the Commission concludes that creativity and creative thinking can make an important contribution to improving wellbeing, including mental health, it recognises that these benefits are most strongly associated with creativity involving arts and cultural activities, which are less available in school to the young people who might benefit the most from them. Subjects such as art and design, dance, drama and music should be a significant part of the in-classroom curriculum for all children and young people. We should be particularly concerned when it comes to the lessening of opportunities for young people facing disadvantage. As the TALE project notes:

“It is worrying and dispiriting to note the trend, observable in English schools...towards the further marginalisation of arts subjects as they are squeezed into shorter time slots and sometimes off the curriculum altogether.”

Young people’s relationship with technology

Children and young people often face a complex technological landscape which they are expected to navigate with little understanding or support. Technology is in itself neutral, but it has strong commercial drivers that cast many young people as consumers rather than creators. Effective signposting to access creative activities on and offline, and a robust creative and critical thinking approach to digital (and data) literacy are required to make the digital environment a place of creative expression and exploration for children and young people.

A report by the Carnegie Trust concluded that ‘there is a need for a refined vision and clear aims for appropriate use of digital technologies in schools as well as some methods of ensuring a consistent standard...’ (Bowyer, 2019).

“Students who spend all their day consuming things, through their smart phone or whatever other screen, and are not doing, or making, or creating seem to living an unfulfilling existence. If we can equip young people with the skills where, when they leave us and they go off as young adults into whatever career they do, if they have a creative outlet in their life, even if they’re not necessarily in a creative career, then I think we’ve done our job properly and we’re more likely to turn out a more rounded well-balanced individual into society.”

Headteacher, Secondary and 16+, Academy, London

At present, when young children make their first forays into technology, they may be pulled into a small number of commercial spaces that are designed to encourage extended and limited use and cultivate them as consumers.

These commercial drivers for digital technology currently make for a poor creation/consumption ratio, with consequent distraction and sleeplessness impacting the individual and an emphasis on social perceptions and highly self-critical personal judgements rather than outward societal or genuinely creative activity, and opportunity for new shared experiences. The ubiquity of technology also means that it is difficult to untangle what is learning from what is leisure and lifestyle.

This complexity means that many teachers and adults now feel uncomfortable about the effectiveness of digital learning, and think it is simply not suitable for younger children.

“Our country’s pupils have never been examined so thoroughly and so much in the whole of history. They’ve never spent so long in examination halls than any other time in history. It’s at a time when technological advances should be absolutely going through the roof and that creative approaches in industries is absolutely vital. We’re just knocking it out of the system”

Senior Leadership Team, North West, Academy, Secondary

Digital technology will continue to be an essential part of the future of young people, not least in the employment market. The Commission recognises that there are important and positive creative capacities that young people can learn through technology.

We need to reconsider how we introduce technology into the combined social and educational lives of young people, looking at it from the perspective of the growing mind and helping them to develop a different

and more positive relationship with technology. The internet, for instance, should be an aspect of young people's personal and social lives, rather than the medium in which they live.

Government must prioritise digital understanding in schools by investing in teacher training, taking a creative and sophisticated approach to digital and data literacy, and ensuring that e-safety is not the full extent of the digital component of schools' online provision. Children should leave school with an informed understanding of the technology that is increasingly central to society, and with the skills to contribute to a future in which all professions and aspects of human life will be to some extent augmented, mediated, or dictated by digital technology. This includes the shift from individualised learning and test systems to co-creation and collaborative sharing.

4

CREATIVITY IN THE EDUCATION SYSTEM

The Commission has sought to understand the challenges and obstacles both outside and within the education system to encouraging creativity and the conditions required to ensure that teaching for creativity becomes normal practice. The Commission has found many excellent examples of teaching for creativity, but it also found that these were unevenly distributed across the school system.

The Commission has focused on creativity within the English education system in order to recommend change that will impact all children and young people. However, it recognises that there are opportunities to develop creativity and creative thinking skills outside of formal education, and that pre-school and out of school activities are vital for the cultivation of creativity.

Research into creativity in education began in earnest in the 1980s and today there are a number of well-evidenced approaches in use which both define its elements and suggest ways in which it can be embedded in schools (Torrance, 1977; Cremin et al, 2006; Lucas et al, 2013; Beghetto and Kaufman, 2014).

4.1 Creativity in pre-school and early years environments

The earliest years of a child's life are important and form the basis of all our learning and creativity. In the first few years following birth, new neural connections are formed in a child's brain at the rate of over a million per second. Exposure to a creative learning environment helps children to develop physically, socially, emotionally and cognitively. Creative opportunities stimulate young children's curiosity, creativity and imagination, and support the development of communication skills; being creative helps children to cope with their feelings and fears and to manage their emotional states and develop positive dispositions towards challenge, change and self-initiated learning. Children who are not given early opportunities for this development may be at a disadvantage in later life.

The Commission found that experience of new sensations and materials, problem-solving and self-expression, and exposure to appropriate risk are key to developing capacities that are of great importance to a young person in their education and throughout their adult life.

In particular, the expressive arts play an important role in developing the creativity, curiosity and imagination of a child in their early years, as does engineering with its associated emphasis on playful experimentation and problem-solving. Creative play, movement, music, mark-making, storytelling and make-believe are essential to the experience of childhood and form crucial foundations for subject learning in later education. The affective properties of the arts also play a key role in engagement with early learning experiences and in identity formation and wellbeing. The environments of good-quality teaching for creativity in the early years are characterised by:

- Encouragement for children to pursue their intrinsic motivation to find out more about the world they live in and the person they are, and to exercise their creativity in ways that are immersive and purposeful.
- Recognition of the unique quality of every child's learning journey.
- Children's collaboration with, and creative thinking and learning from, their peers as well as their teachers and carers.
- A strong sense of connection to the community and recognition of the importance of the role that families play in young people's learning.
- Careful attention to the physical, sonic and tactile environment and to the resources that scaffold creative thinking and learning.
- A varied and stimulatingly structured day, week, term and year that is open to spontaneity.

From its interactions with practitioners the Commission concludes that there are a number of challenges to developing creative thinking with young children in the early years:

- Parents and carers can lack confidence and/or good-quality guidance in choosing and funding the best opportunities to stimulate children's cognitive, emotional and social capabilities.
- The training and skill set of childcare workers can be variable. England is unusual in the developed world for the low level of training (and pay) it provides to those who teach the very youngest learners. Care of the very youngest children is sometimes entrusted to junior or less experienced members of staff. Leadership can also be a factor: increasingly, early years settings and funding decisions are directed by leaders with expertise and training in teaching older children.
- While the expressive arts are crucial in early years learning, not all educators possess expertise in the arts, and not all artists are trained in educating. Not all organisations who undertake cultural education seek to engage with children this age.

- In some regions, pressure on local government resources threatens the continued provision of children's centres and nurseries to those most in need of them. Community arts venues and organisations who work with children are also increasingly stretched.
- The regulatory framework for early years teaching is seen to place a higher priority on school-readiness than on developing a child's creativity and lacks detail on good practice for teaching for creativity at this age.

The Commission acknowledges the powerful role creativity plays in the early years of children's development:

“By encouraging creativity and imagination, we are promoting children's ability to explore and comprehend their world and increasing their opportunities to make new connections and reach new understandings.”

(Duffy, 2006)

If we do not provide environments in which the creativity and imagination of the very youngest learners is helped to flourish, we are failing to support families at the stage when it is needed the most. Recommendation 8 forms a foundation for this work.

SALTMusic

Funded by children's music charity Youth Music, SALTMusic is a research project based at the Great Yarmouth Community Trust in Norfolk which seeks to connect EYs music practitioners with speech and language therapists to investigate sharing of best practice. Through joining together these two communities in sessions with young children with communication difficulties, existing practices have been reviewed to facilitate practice improvement.

The programme also seeks to address language delay in young children. Good language and expression are known to be critical for a child's future life chances, so early intervention is key. Research has shown that language delay is a particular risk for children aged four to five with parents or carers in the lowest income band. As such, the project has been located in a region of economic disadvantage, to not only support language acquisition for children, but also to gain understanding about the relationship between poverty and language development – particularly the variation in oral communication skills based on low and high income backgrounds and associated parenting approaches and home environments.

The project is based on research which has shown that musical communication forms the foundation for language development (Dunn and Kendrick, 1982; Trevarthen and Malloch,

2000). As such, each session is music based, using tuned and un-tuned percussion instruments, objects to encourage speech such as toy animals and vehicles, building materials, and sensory materials for stimulating play. Shaped by practitioners, parents, and children, each session is broken into two halves – a free play and a group-led activity – encouraging attendees to be expressive in a safe and relaxed environment.

Findings from the first year of the programme highlighted that young people became more confident and increased vocalisations in a relaxed, musical, and playful space, in which there was no pressure to speak and where laughter supported these vocalisations. Development was further evidenced, particularly for those children who returned. Not only did the children themselves benefit from these approaches; nursery staff were also found to benefit from such approaches.

SALTMusic report that “speech and music therefore share components, and particular ones are stressed in infant and caregiver interaction. We strongly believe that the skills required to understand language are inherently musical. There have been a number of studies which demonstrate a link between music and speech and language in infants and children. We want to build upon this knowledge through a project that carries out revolutionary new practices to see what can be implemented in this field in the future. It’s a very exciting time for us and for those in the field.”

4.2 Creativity in schools in England – opportunities and challenges

The Commission found compelling evidence for the timeliness of emphasising the importance of creativity in schools today. As we have seen, creativity contributes positively to our identity, our sense of community, to social mobility and to our wellbeing. Employers want creative employees. Schools want to recognise the centrality of creativity in their environments, and across the world increasing numbers of education systems are taking teaching for creativity seriously.

While the challenges are numerous, the Commission concludes that the opportunities are there and the rewards for success are great, as evidenced in the case studies provided here.

Schools present particular challenges given that the curriculum is organised into individual subject disciplines with no mention of creativity on a student’s timetable. The Commission found that this basic issue is further compounded by a lack of confidence among headteachers and teachers as to the cultural and pedagogical shifts needed to make creativity central to their practices.

While no one school in England is the same as another, there are five key forces that influence what happens in all schools. These are: the ways the Office for Standards in Education (Ofsted) measures success; the National Curriculum and what it requires schools to teach; external tests or examinations and what they specify in their syllabuses; the morale, calibre, confidence and professional development of heads and teachers; and the amount of funding available.

“It still feels to me that a human being’s ability to come up with the idea in the first place is one of the most precious skills, and our inter-personal skills to deliver that will be crucial. Certainly, as an educator to give children practice and exposure to situations which will allow them to exploit their natural creativity and to practice thinking originally and thinking flexibly is a key priority.

The barriers are to do with the resourcing and then persuading pupils and staff in state schools that they are worth doing, and I don’t say that in any spirited criticism of the state schools. I think they do a heroic job in difficult circumstances because it is so difficult to organise some of these more freeform activities with some of the accountability pressures that they’re under.”

Headteacher, Independent School, Primary & Secondary, East of England

Room 13 Hareclive, Hareclive E-Act Academy (Primary)

Room 13 Hareclive was established in 2003 as an independent art studio in the playground of Hareclive Primary School in Hartcliffe, Bristol, under the Government’s Creative Partnerships initiative. Building on the model of the original Room 13, established in Caol Primary School in Fort William, Scotland, in 1994, Room 13 Hareclive is part of a network of over 100 independent Room 13 studios across the world.

Run by the children who use the studio, and supported by two artists in residence, the art studio provides young people with space to express themselves and to have fun. Students can use the space to follow their own creative interests and projects and at any time, including class time, the only criteria are that children must themselves want to go, must agree time off from lessons with their teachers, and must ensure that time away does not impact against their classwork.

It also provides young people with the opportunity to develop transferable skills through direct involvement with the management of the studio. A management committee comprised of yearly elected students aged 9-11, working alongside adults as equals, oversees the day-to-day management and decision-making for the studio. This includes running a shop, raising funds for materials, dealing with banking and financial management,

and developing opportunities for Room 13 and its work with other schools and organisations.

Room 13 therefore provides young people with the space to be creative, to express themselves, to be respected and trusted, and to develop skills for future life through hands-on experience which itself generates confidence and capability. A review of its impact was conducted in 2009, which found that 100% of respondents were positive about Room 13, and that it was seen to improve happiness, confidence, concentration and perseverance – skills which in turn improved performance in core school activities and raised aspirations. The studio has always been largely self-funding, with the adult team and children working together to raise funds. However the school also contributes financially and there has been increasing collaboration and mutual support over recent years under E-Act.

Kate Richardson, Head Teacher, told the Commission: ‘Room 13 has shown us as a school the value of pupil centered learning, of valuing pupils’ thoughts, ideas and beliefs (their true voice) and the rewards that can be reaped in motivation for learning when doing so.

‘Since working with the management team more closely we have seen stronger use of creativity in the classroom across all subjects and disciplines: for example the maths project work we did together which engaged children so creatively in maths that they didn’t even know they were doing calculations! We saw children in year 5 engrossed in designing graffiti tags using tessellation and measure and children in year 3 building bridges and testing their strength by calculating heights and lengths.

‘Their sense of identity is developed by the work in the studio which is then built upon by work with teachers and staff to ensure a holistic approach to their creative and emotional development.’

External accountability

Ofsted has recently introduced a new framework for inspection that could offer new freedoms to schools looking to embed creativity within their policies and practices. The framework evaluates school leaders’ intent, implementation and impact of their curriculum.

Ofsted is keen to ensure that schools teach a full range of subjects for as long as possible, specialising only when it is most appropriate to do so. Teachers are encouraged to create an environment that allows the learner to focus on learning in ways that clearly support a coherently planned curriculum – ways that are ‘sequenced towards cumulatively sufficient knowledge and skills for future learning and employment’.

The new Ofsted framework also considers the personal development and wellbeing of pupils, encouraging schools to ensure they focus on

‘learners’ broader development, enabling them to develop and discover their interests and talents,’ developing their ‘resilience, confidence and independence’, helping them ‘to keep physically and mentally healthy’ and preparing ‘learners for future success in their next steps’ (Ofsted, 2019). In addition, as part of the personal development of learners, there is a specific requirement to focus on the ‘development of their understanding and appreciation of diversity’.

There is a real opportunity within the new framework to develop ambitious approaches to encouraging creativity and teaching for creative thinking in schools. It opens up opportunities to apply skills, knowledge and understandings acquired in different subject disciplines in other contexts to meet needs and solve problems and for pupils to begin to be critical of their own and others’ thinking. These skills are important at all ages and in all subjects of the curriculum, and help establish broad and balanced approaches to progression in learning as well as independence as learners (Davies et al, 2018).

The National Curriculum and the role of creativity within and across subjects

The National Curriculum in England (Department for Education, 2014) does not currently require schools to focus on teaching for creativity although one of its two aims mention the concept:

“The national curriculum provides pupils with an introduction to the essential knowledge that they need to be educated citizens. It introduces pupils to the best that has been thought and said; and helps engender an appreciation of human creativity and achievement.”

This draws attention to the creative achievements of singular individuals in the past and the outcomes or products of creativity in terms of these big achievements but does not focus on encouraging the creative processing of learners. Academy schools are allowed a freedom in the content of their curriculum but to date there has been little research to indicate the extent to which academy schools are taking advantage of this position. The Commission intends to explore this further.

Prior to the National Curriculum, up to the age of five, preschool education is covered by the Statutory Framework for the Early Years Foundation Stage (Department for Education, 2017). While the word ‘expressive’ is used, there is no mention of either ‘creativity’ or being ‘creative’. By the time a child reaches Key Stage 1, they are taught according to the National Curriculum, in which there are 12 mentions

of the word creativity (Department for Education, 2014). One refers to the opportunity for teachers to develop their creativity (and teaching creatively is not the same as teaching for creative thinking) and the other 11 sit in four subject areas – art and design (4), computing (2) design and technology (3), and music (2).

This highlights a particular challenge. While the National Curriculum is organised into individual subject disciplines, there is no recommendation to include opportunities for encouraging creativity in students' timetables across the curriculum breadth.

Research tells us that creative thinking is largely domain-specific (Baer, 2010). The references in the National Curriculum to creativity in only the four areas mentioned above ignores what counts as creative thinking in other disciplines – in mathematics or drama, science or art, history or geography, creativity tends to look and be different, as described in detail by Newton (2012). There can, of course, be inter-relationships between subjects, as recognised by the Church of England's Vision for Education (2016) which explicitly identifies creativity as being part of all subjects in its 4,700 schools:

“... partly about the importance of art, design, music, drama, dance, poetry, fiction, and film; it is also about discovery and innovation in the sciences and technology, construction as well as critical thinking in the humanities, entrepreneurship in business, leadership in all spheres, and inspiration, imagination, and improvisation in ethics and religion.”

However, it is important to recognise that just because an individual exhibits creative thinking in one context it cannot automatically be assumed to exist in another: it takes considerable practice to transfer creative thinking skills from one domain to another (Kaufman and Baer, 2005). Yet when this does happen, as Baer (1998) points out, both creative thinking and domain specific knowledge and understanding benefit. When teachers encourage creative thinking in their lessons across all subject disciplines, it opens up possibilities in which learners use their skills, knowledge and understandings from the range of curricular experiences to be creative.

A further challenge is the need for teachers to understand what counts as creativity in different subject areas and what kinds of opportunities with pupils of different ages can unlock and grow creative thinking. Data collected for this Commission indicates this is an area of pedagogy and practice that is lacking in the experiences of many teachers. This points to the need for a programme of professional development, starting with trainee teachers and including classroom practitioners, support staff and school leaders. This could be enhanced

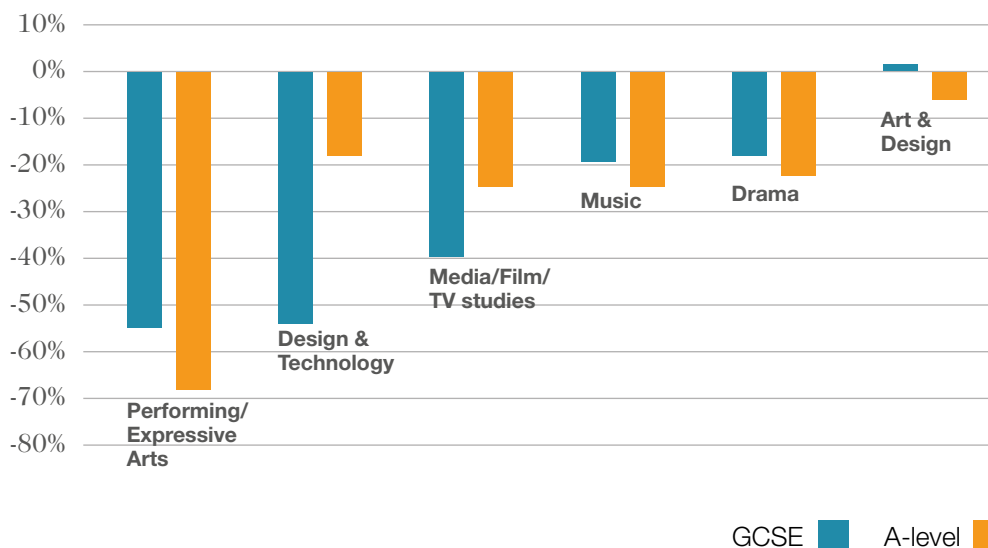
through structured collaborative support by those schools and teachers already demonstrating how creativity can be encouraged, organised through networks similar to the Mathematics Hubs or the Music Hubs and establishing Creativity Collaboratives in different areas of the country.

Public tests and examinations

In England, there is a very structured programme of formal testing and examinations. Pupils in Key Stage 1 take Standardised Assessment Tests (SATs) in mathematics and English during year 2. In Key Stage 2 they take SATs tests in English, maths and science in year 6. At age 15 or 16, young people in secondary schools take General Certificate of Secondary Education (GCSE) exams, and Advanced Level (A level) or Business and Technology Education Council (BTEC) examinations occur normally at 18 or 19 years of age. In addition, a number of alternative post-16 vocational opportunities and qualifications are also available, including apprenticeships.

Concern has been raised that, since the introduction of English Baccalaureate (EBacc) subjects with a focus on English language and literature, mathematics and the sciences, there has been a reduction of the number of students taking what have been traditionally thought of as creative subjects at GCSE and A level. This, in the opinion of the Commission, results in a serious imbalance in the all-round education of students.

Decline in subject uptake 2015-2019



“We see it all the time, there are lots of great ideas, people come up with great ideas, try to find solutions and then they end up basically getting theorised rather than implemented. There are practicalities of day-to-day survival and day-to-day requirements, assessments, everything documented, all of the processing that has to go on in education now.”

Senior Leadership Team, Yorkshire & Humberside, LA-maintained School, Primary

Examinations fundamentally focus on single academic or vocational subject areas and assessment by final examination alone, leaving little scope for inter-disciplinary exploration. Unless an aspect of creativity is specified by a particular syllabus it is unlikely to be developed in busy, results-conscious schools. Many examinations at GCSE level and above inevitably focus on knowledge recall and leave less scope for creative questioning and problem-solving, or the exercise of curiosity through deep enquiry.

Until recently, the signals sent by leading universities to students who are considering an application to study in one of their institutions have often been interpreted as discouraging arts subjects for those wishing to study in the fields of the sciences and humanities. The Commission therefore welcomes the replacement of ‘Facilitating Subjects’ by the new guidelines, ‘Informed Choices’.

We are aware that setting tests and exams on a national scale is extremely complex and comes with extraordinary responsibilities, given the implications for children of the grades they receive. It is understandable that awarding bodies prioritise reliability and replicability of results and marking – indeed they are required to do so by regulators – and that heads and teachers should focus efforts on children doing well against these marking schemes.

However, we strongly believe that the consequences of this system for teaching and learning are far from ideal for government, regulators, heads, teachers or parents. None of these parties desires an educational approach dominated by teaching that is focused on answering exam questions and one that is inimical to deep and creative learning, but that is what in large measure we have.

The current consensus is that we need a period of stability in the exam system. The Commission believes this should be seen as an opportunity to review the system. Government, the exams regulator Ofqual and the awarding bodies should work together over the next two to three years to establish approaches to setting and marking exams that reduce incentives to ‘teach to the mark scheme’. They should also develop an accountability system that discourages this style of teaching.

Within the current menu of public examinations there are frameworks such as the Extended Project Qualification (EPQ) that shows how knowledge, underpinned by perseverance, experimentation and collaboration, can be combined in an exercise of extended creative thinking. Counting as half an A level, the EPQ encourages students to undertake a largely self-directed and self-motivated project. Most significantly, it invites students to explore potential connections between, as well as within, individual knowledge disciplines. Students choose a topic, plan, research and develop their ideas and decide on an appropriate medium for a finished 'product'. Creativity and curiosity are actively encouraged. The finished product can be a research-based written report, a production such as a charity event, fashion show or sports event, or an artefact like a piece of art, a computer game or a designed product.

Similarly, the University of the Arts (UAL) and BTEC qualifications provide flexible, responsive frameworks which support student progression.

The role of heads and teachers

BritainThinks Survey

The Commission asked BritainThinks to survey the attitudes of headteachers and school governors to creativity in education. An online survey of 396 headteachers and governors was followed up with telephone interviews with 54 of the participants.

The survey highlighted tensions between positive attitudes about creativity among participants and how it is actually prioritised in schools.

99% of headteachers and governors thought it important to support creativity and creative thinking. They associated creativity with problem solving, expression and communication.

Many thought that when inculcated effectively, creativity could increase pupils' confidence and resilience and deliver improvements in their attainment grades for core subjects. Attempts to measure these impacts were met with mixed opinions and headteachers and governors found it difficult to give examples of types of knowledge that are innately creative. However, they could readily identify ways in which subject-specific knowledge can be used creatively. For example, a grasp of key principles in mathematics is needed to devise creative ways to solve problems. Taking an interdisciplinary approach – using knowledge and skills learnt in one subject, and applying these in another – was also valued as a creative skill.

While the vast majority of survey participants believed creativity was important, they expressed concerns that were more pressing, e.g. funding pressures and teacher retention, which offset the prioritisation of creativity.

Approaches to implementing creativity varied, but headteachers and governors referenced some common key pre-requisites for supporting creativity in schools. They included buy-in from senior leadership, sufficient funding to invest in resources, or external specialists and a culture of communication and freedom of expression.

The BritainThinks survey for the Commission shows that headteachers and school governors value creativity, with 99% agreeing that it is important to support creativity and creative thinking in schools (BritainThinks, 2019). But often teaching for creativity is subordinate to other pressures such as shortage of resources, both human and financial, particularly in schools in less advantaged areas.

With the new Ofsted framework there is now an opportunity for headteachers and their school staff to plan to develop a strategy for teaching for creativity. The evidence and arguments in this report show why schools should be supported in the development of such strategies.

Nonetheless it is clear to the Commission that there is a substantial set of issues for school leaders to grapple with, when embedding creativity across all subjects and all aspects of their schools, including their own readiness to deliver such teaching:

Enthusiasing teachers to develop creative learning/teaching in their classroom is a challenge and accentuating the benefits to pupil learning will be paramount. Support and reassurance from school leaders is no doubt crucial for any substantial impact to be achieved. (Turner, 2013)

In a systematic review of teachers' professional development needs, five themes emerged:

"...the importance of school culture in supporting or impeding creative practice; the need to elicit teachers' prior conceptions of creativity in education; teachers taking on the role of learners to develop their own creativity; working co-constructively with a mentor or coach who may be a creative professional from an outside agency; and the importance of teachers undertaking action research and reflection on their own classroom practice." (Davies et al., 2013)

Most importantly, there is a hesitation amongst some headteachers and their colleagues about how creativity can be best used within the school environment. Without a confident understanding of its nature in different disciplines and the ingredients required for creative activity, it is difficult to exercise confident leadership, and to work beyond the confines of the existing system to which they are accountable.

“To some, it’s very frightening because they’re so accountable for the outcomes that if they allow children to explore and think, and think out of the box, and maybe go off on a tangent, that they haven’t managed to get to the next point in the next lesson so they can do the assessments and put the data in, and prove the children are making progress.”

Headteacher, West Midlands, Academy, Secondary & 16+

Schools told the Commission that they would like leadership teams to be able to develop and articulate a shared vision and purpose for creativity and for this to be embedded within the school improvement plan. At a local level they wanted better partnership working with peers to make the best use of resources and expertise, and to share best practice. The Commission has responded by recommending the establishment of Creativity Collaboratives, to encourage and champion creativity, empowering teachers to facilitate creativity in their schools and share their knowledge with peers.

Iffley Road Academy

Iffley Road Academy is one of only two special needs schools in Oxfordshire. It has a highly developed curriculum that engages and challenges every member of the school and which seeks to help every learner develop to their full potential whatever their background or need. The Head Teacher, Tom Procter Legg, trained as an art teacher and puts the creativity of his students at the heart of their learning in helping to develop their confidence and self-esteem as well as knowledge. ‘You will see many examples of good cultural education during this project,’ he told the Durham Commission, ‘but how many of them will involve already high-achieving students in mainstream schools?’

When the Commission visited the school, Jackson Pollock class (every class is named after an artist) welcomed a visit from University of Oxford scientist Dr Frances Colles, who discussed her work on bacteria and food poisoning as part of a project in partnership with the university’s Galleries, Libraries and Museums division. The children were then encouraged to ‘design their own bacterium’ on paper; a puppet maker Georgina Davy was also in attendance, and would return a week later to help the class turn their bacteria into puppets. The visit was also preparatory to the class visiting the Oxford Museum of National History’s exhibition ‘Bacterial World’. The partnership, facilitated by artist Miranda Millward shows a consilient model of arts and science learning, which demonstrates how children can acquire knowledge, come up with new ideas, work with their hands and feel ownership of the cultural institutions in their local community. Following the visit, the children undertake project work to design and curate their own exhibitions; the project also encourages the children to consider the cultural sector as a career destination in adult life.

Funding issues

Responses to the Commission's research indicated that an obstacle to schools successfully reaching their goals, including teaching for creativity, is lack of resources. Whilst the Commission welcomes the recent additional investment in education, it found that total school spending per pupil in England has fallen by 8% in real terms between 2009/10 and 2019/20.¹⁴

Teachers report routinely having to spend their own money to provide resources and materials for the classroom.¹⁵

When asked about the top priorities for their school in the Durham Commission survey, school leaders' highest-ranked answer, 33% of respondents, mentioned meeting budgets and working with financial constraints. 69% told us that it had become harder to implement creativity and creative thinking compared with five years ago, and 71%, again the highest ranked answer, reported limited school budgets as a significant barrier to supporting creativity in their schools. Many told us that when budgets became tight, creative expertise and activity, such as a school trip to stimulate project learning, were the first things to go.

Subjects traditionally thought of as 'creative' have been especially squeezed by schools' lack of resources: both the number of hours taught and the number of teachers in these subjects has declined by 10% in the last three years alone. Across England, access to music teaching in schools has declined despite the clear social and economic benefits music brings to young people. In music, provision in some schools has been drastically eroded, as evidenced in the State of the Nation report, despite the clear benefits music brings to young people. Nationally, the proportion of students choosing to take a music GCSE remained at 7% between 2010-2017 – dipping by 1% in 2017/2018 to 6%.¹⁶

Creativity and the arts in schools

In its research for this report, the Commission found that creativity continues to be seen as the preserve of arts subjects, a long-standing misconception. This is perhaps understandable, as in these subject areas more than others, children and young people can be thought to be expressing themselves or providing a personal response, rather than learning and applying knowledge and established practices of an academic discipline. However, this view does not recognise the centrality of discipline, rigour and technical excellence in a good quality arts education.

Teachers who responded to the Commission's survey reported that in schools where arts provision has been squeezed, there has been a broader negative effect on learners' oral skills and self-confidence; conversely schools with a thriving arts programme report high levels of pupil behaviour and self-confidence.

The Commission believes that a better understanding of the kinds of creativity developed through arts subjects will help teachers to design and deliver a richer, broader and more balanced curriculum. The arts are a resource from which people can draw their inspiration for creative thinking. They are not 'soft subjects'; they offer a body of skills, knowledge and understandings that generate a disciplined route to the acquisition of creativity. They can confer a strong sense of confidence and agency and encourage social interaction and communication. The Commission believes that the erosion of these subjects from the curriculum post-primary education is damaging for young people.

While the Commission's survey of headteachers showed a consensus about the importance of creativity, some felt more strongly than others about the role of traditional arts subjects. Overall, there was strong support for integrating creative pedagogies used in teaching arts subjects into the curriculum. However, it is important to distinguish between encouraging creative thinking in different subject disciplines and using creative thinking in the arts as a means of expression in other subjects. Domain-specific needs in terms of creativity must be acknowledged in any integrated activity.

The Commission has considered the role of arts subjects and arts pedagogy in supporting creativity across the curriculum. At a symposium held at Tate Modern in October 2018, school senior leaders advocated for a 'webbed' rather than 'silo driven' approach to a curriculum which must include the arts alongside other disciplines.

Sidney Stringer Academy

In Sidney Stringer Academy art teaching was found in science. A science teacher interviewed during the school visit described how he incorporates arts activities into science lessons, for example asking his students to create paintings of chemical bonds or using plasticine to make a model of a skeleton. The teacher believes that it helps students play a more active role in their learning when they are applying skills used and learnt in other disciplines. He encourages the students to apply their arts experiences and knowledge to science. The teacher talked about the importance of understanding how the arts have been inspired by science and science by the arts "the art of science and the science of art".

While not all schools choose to engage in Artsmark, the creative quality standard for schools and education settings, accredited by Arts Council England, Artsmark can be a powerful vehicle for school improvement in those that do. Recent research commissioned by Arts Council England on arts and culture in schools rated Outstanding by Ofsted has many examples of integrated learning involving the arts.¹⁷

For students, the opportunity to study arts subjects is highly valued. The Royal Shakespeare Company, Tate and University of Nottingham research project Time to Listen demonstrates that students enjoy teaching methods often used in arts subjects which allow their learning to be open ended, with no definitive right or wrong answers.

“It allows you to be more experimental. In drama you have to try different ways of doing something until it works. That is a skill I’ve applied to other subjects, even academic lessons where you don’t often do that, if you take a different approach it might be the right way. In lots of subjects there’s always one right answer you have to strive to get right, but arts is what you do and what you achieve.”

(Year 10)

“The arts build confidence and team-building skills. When you go out into the world you’re not going to work with your friends. It teaches you to work with others and get along with them no matter what. You get to see the world from others’ point of view.”

(Year 10)

Of particular value was the opportunity to develop and support their own views and opinions. Arts subjects help develop a greater sense of young people’s own identity, and help develop their own agency, self-belief, confidence, communication skills, empathy and appreciation of difference and diversity.

Recognising and assessing creativity

The Commission noted concerns about how to judge the quality of the creative process or product. Assessment is a process. It is about gathering evidence in order to inform decisions about something, and in education that is usually to do with the progress and development of a learner. No teacher would make a decision about a pupil’s abilities based on only one piece of evidence. They would want several, derived from different tools or approaches. While aspects of creativity have been assessed by scholars in, for example, psychology and education for more than 50 years, in schools it is rare for teachers to

do so (Spencer et al, 2012). The nature of creativity, and what counts as creative thinking in different areas of experience, are such that no single tool or approach is likely to be suitable. Performance on one task alone may not provide conclusive evidence of a student's creative competencies (Baer and McKool, 2009).

In a recent literature review, Sprague and Parsons (2012) noted that:

"[Numerous]... creativity assessments and programs have been developed; however, no single test or program has demonstrated increased creative ability or predicted, with certainty, real-life creative production. Creative achievement includes complex interactions using convergent and divergent thinking throughout creative processes."

From a teacher's perspective, it is important that creative thinking is embedded within different disciplines. Many educators (Cremin, 2009; Beghetto and Kaufman, 2014; Lucas and Spencer, 2017) argue that rather than focusing on tools that assess and measure creativity (which may have their place at times), it is important that teachers discuss and agree:

- What is meant by creativity generally
- What counts as creative thinking within the different disciplines
- How to recognise it and make decisions about its quality
- How to nurture and support appropriately creative thinking in their lessons and in the wider curriculum

Fundamental to this is the notion of recognising creativity rather than trying to assess and measure it. Indeed, trying to assess creativity could be seen as potentially damaging to the creative process. For others, the overuse of summative tools to assess creativity might be seen as threatening students' freedom and risk taking. Amabile (1983; 1996) proposed a model which, in essence, recommends looking at the different attributes of the creative process (novelty, aesthetics, etc.) and making judgements about the quality of each, rather than trying to generate an holistic judgement. This approach has the potential for wide application in classrooms where two or more teachers can collaborate in their valuation of students' work. The teachers' expertise, however, must extend over both the subject and the kinds of creative thinking typical for the students concerned (Hunsaker and Callahan, 1995; Craft, 2002; Newton, D., 2010; Lucas 2016). However, training is needed which addresses such matters and highlights components of creativity, like novelty and appropriateness which can improve a teacher's ability to recognise creativity in a particular subject (Besemer and O'Quin, 1987; Newton, D., 2010; Pfeiffer, 2012).

The sum of such information, accumulated over time, can suggest a student's level of subject-specific creativity. Treffinger and colleagues (2002) recommended a scale ranging from creativity that is Not Yet Evident, through Emerging and Expressing, to Excelling. This can be applied to the components of creativity seen as important on a specific occasion and it recognises the uncertainties of assessment.

Over the last two decades, at the International Centre for Innovation in Education (ICIE) in Descartes University, Paris, Todd Lubart and colleagues have been developing and testing an instrument – the Evaluation of Potential Creativity (EPoC) – which comprises a battery of tasks allows what they call creative giftedness to be measured.¹⁸ EPoC works by:

- Having participants show what they can produce when they engage their creative processes in a domain-specific, meaningful task
- Soliciting both divergent-exploratory and convergent-integrative thinking, which are seen as the two main parts of the creative process
- Measuring their creative thinking on two separate occasions, with two distinct contents from the target domain

The domains include artistic-graphic, literary-verbal, mathematics, science, music, and social sciences. EPoC is now used in a number of different countries and the tasks are translated into various languages.

More recently, the OECD's Centre for Research and Innovation in Education has been conducting a study across 11 countries looking at how creative and critical thinking can be taught and assessed in schools which was recently published as a comprehensive report (OECD, 2019). In 2017, the OECD decided to make creative thinking the subject of its Programme for International Student Assessment (PISA) 'innovative domain' test in 2021. Successful field trials have taken place in Australia, Singapore, South Africa and Canada and these are being further developed, improved and translated into other languages for a second field trial, before being finalised in 2020.

The Commission found that teachers have mixed views about the benefits of attempting to test the creativity of students. While there is a general recognition that 'what gets tested tends to get done' and that testing creativity might help to raise its status, most teachers preferred the emphasis to be on assessment of planning, leading to teaching for creativity, not for the identification of individual creativity.

“I think as soon as you start measuring creativity and its impact on the school, the students will start trying to achieve to a level rather than really enjoying the freedom and the creativity and the freedom from something that is in any way assessed.”

Headteacher, South East, LA-maintained School, Secondary & 16+

If part of the problem rests with teachers' understanding of what counts as creativity in the different disciplines, a further component is a lack of coherent guidance on recognising and assessing it. The Commission sees this as an area where more work is needed and is considered further in recommendation 4.

4.3 The conditions for encouraging creativity in the classroom

The Commission believes that the effective cultivation of creativity in the school environment requires certain conditions, including the right balance of:

- The skills, knowledge and understanding required
- Time and space for self initiated learning
- Foundations of discipline, practice, and rigour
- Opportunities to experiment, make mistakes, reflect, try again

Creative Education Trust

Creative Education Trust, established in 2010, is a network of 17 primary and secondary schools educating 13,500 children and young people in the Midlands and East Anglia. The Trust seeks to improve the academic performance of schools in the challenging circumstances of post-industrial cities and coastal towns, and to give children the best possible start in life by developing their creativity. Its Knowledge Connected programme is framed by six concepts: structure, pattern, meaning, performance, human interaction and practice. These concepts integrate the curriculum, which encourages children of all abilities to exert their creativity by connecting knowledge across disciplinary boundaries, thereby developing their skills, confidence and wellbeing in ways that will equip them for life.

Director of Programmes Emily Campbell told the Commission, ‘We want our alumni to be identifiable through one characteristic – that they can join their knowledge up.’ All but one school had been judged as requiring improvement or placed in special measures at the time it joined Creative Education Trust; all but one (the most recent joiner) are now Good.

This combination can be applied to all subjects, domains and phases of learning in schools. The Commission considers these to be the conditions necessary for the successful fostering of creativity.

Cremin et al's study (2006: 117), recognised by the Commission as aligning to its conception of the conditions for creativity, sought to determine what characterises creative thinking schools and identified seven key or core elements for fostering it:

- Posing questions
- Play pedagogies
- Immersion and making connections
- Being imaginative
- Innovation
- Risk taking
- Self-determination

Cremin draws attention to the invisible pedagogy of learners taking more responsibility for their learning journeys. This can only work when teachers can allow pupils (and themselves) time and space to experience the core elements.

From the evidence (Lubart, 2001; Cremin et al, 2006; Craft, 2010), the Commission believes that high-quality teaching for creativity in schools has much in common with effective teaching in schools generally, and is characterised by:

The learner	<ul style="list-style-type: none"> • A belief that every child is, or can be, creative, and can think creatively • Recognition of the individual agency of every young person in their learning
The learning experiences	<ul style="list-style-type: none"> • Strong subject knowledge and practice to inform creative thinking • A context in which knowledge and practice can be connected both within and across disciplines • Encouragement of divergent as well as convergent thinking, to 'question the question', and to think about the subject beyond assessment goals • A commitment to embodied learning, through the five senses, thus encouraging learners to use their hands and bodies as well as their minds • Interaction with the physical environment, including outdoor learning, interactions with the living world, and incorporation of diverse cultural experiences

The learning environment	<ul style="list-style-type: none"> • Opportunities to ‘fail without fear’, to be reflective, and to try again, thereby developing their resilience • A school culture which does not have a hierarchy of disciplines (such as over-privileging arts or mathematics, as anterior to any other) and offers a rich and varied curriculum, recognising the role played by creativity and the imagination in subjects such as physics or history, as well as subjects traditionally deemed to be creative • A classroom culture tolerant of ambiguity, paradox and diverse points of view • Pedagogies which encourage experimentation, multiple perspectives, persistence, collaboration • Opportunities for the unexpected • A system which rewards the creativity of students in all its aspects
The resource provision	<ul style="list-style-type: none"> • The capacity to foster teaching for creativity with sufficient funding to provide high-quality resources and experiences • An open-minded approach to learning technology combined with awareness of how knowledge encountered in digital domains is also culturally and historically produced
The staff	<ul style="list-style-type: none"> • A teaching workforce confident in its capacity to teach for creativity and to recognise it in their students, well trained and open to further professional development • Senior leadership confident in the value of teaching for creative thinking within a broad, balanced and progressive curriculum
The network	<ul style="list-style-type: none"> • Strong and productive relationships with other schools, cultural institutions, LCEPS and employers • Engaging with families and communities through collaborative activities involving creativity

Thomas Tallis School

Thomas Tallis School is a large 11-18 comprehensive school in London which puts creativity at the heart of all that it does. The Tallis Habits are embedded in every subject of the school using the five dimensional model of creativity developed by the Centre for Real-World Learning at the University of Winchester, following a decade of empirical research by Lucas and Spencer (2017). The Tallis model makes clear to staff and students the key words associated with each creative habit, the kinds of opportunities which they expect all students to experience, and suggested pedagogies for staff to use in their teaching. Students are encouraged to use a Tallis Habits Journal to record the development of their creativity.

The Commission's understanding of the conditions required for creativity to flourish can be complemented by a number of models for creativity used by schools in England. The Commission recognises the model for 'possibility thinking' produced by Cremin et al (2006) which describes the desirable features of creative thinking in the classroom. Craft (2010) summarised the features of a climate that is conducive for teaching for creative thinking in schools. In order to encourage what she calls 'possibility thinking' in classrooms, she advises teachers to:

- 1** Focus on pupils' motivation to be creative
- 2** Encourage purposeful outcomes across the curriculum
- 3** Foster an in-depth knowledge of disciplines
- 4** Use language both to stimulate and assess imagination
- 5** Offer a clear curriculum structure but also involve pupils in creating new routines where appropriate
- 6** Encourage pupils to go beyond what is expected
- 7** Help pupils to find personal relevance in their learning
- 8** Model the existence of alternatives in the way information is imparted while also helping them to learn about and understand existing conventions
- 9** Encourage pupils to explore alternative ways of being and doing, celebrating, where appropriate, their courage to be different
- 10** Give pupils enough time to incubate their ideas
- 11** Encourage the adoption of different perspectives
- 12** Model the variety of ways in which information is discovered, explored and imparted

4.4 How do we compare to other education systems?

While the Commission has considered practice in English schools it has also recognised that much can be learned from international approaches to teaching for creativity. Creativity is now cultivated in educational systems across the world, especially in economies where creativity is itself recognised as important. Some examples are provided below.

Country	Focus
Scotland	The Scottish Curriculum for Excellence is founded on four capacities – successful learners, confident learners, responsible citizens and effective contributors. Creativity and creative thinking are distributed across three of the capacities but especially in successful learners.
Wales	The Welsh Government is currently consulting on a new ‘transformational’ curriculum to be introduced in 2022. It has four core purposes – ambitious capable learners, healthy confident individuals, enterprising creative contributors and ethical informed citizens.
Finland	A new national curriculum was introduced in 2014. ¹⁹ Subjects such as mathematics, environmental studies, biology, geography, physics, and health education sit side by side with ‘transversal competences’ – cross-cutting skills and capabilities that are needed in many subject disciplines and for success in life. Finnish schools must teach at least one module a year that is inter-disciplinary. This requires and enables teachers to work in ways that are likely to encourage creativity.
Singapore	The Singaporean curriculum now frames the education of its citizens in terms of specific desired outcomes, one of which is that, by the end of secondary education, students should ‘be creative and have an enquiring mind’. Singapore’s new Early Years Curriculum also has creativity as one of its core elements.
Australia	Creativity is described in the Australian Curriculum as a ‘general capability’ to be embedded in all schools and termed ‘critical and creative thinking’ (CCT). The knowledge and skills contained in critical and creative thinking are specified from early years to the end of year 10.

The Commission acknowledges that comparisons with other countries are not always straightforward, given variations in culture and educational systems of the countries, the degree of central control by the government, the nature of standardised assessments and the training of teachers for different subjects and phases.

Perceptions of the desirability of creativity depend on the culture of the school and the system within which it sits. Creativity may not be encouraged in the classroom if the wider context is not conducive. Which words are used and how creativity is described vary greatly according to context and culture. Being creative also involves exercising a kind of freedom, and how this is viewed is also culture dependent.

Nonetheless, the concept of creativity and a focus on encouraging the creative thinking of learners in all subjects of the curriculum is becoming central to the education systems of our economic competitors. In a study of broader skills in countries across the world, the Brookings Institution has found that of creativity, critical thinking, problem-solving and communication, creativity is the most frequently mentioned. Creativity, according to Brookings, appears in government education documents from more than 50 countries (Horton et al, 2017).

Unless the English system recognises the importance of creativity, its school students may be left behind in an educational slow lane, with consequences for the country's future economic and society as a whole. There has therefore never been a more vital time to address this pressing need.

4.5 Creativity in extra-curricular environments

The Commission's research and interviews show that school leaders value creative thought and creativity, but are not necessarily confident about whether and how to introduce it into a curriculum from which arts-related subjects including music and drama are already being eroded.

This has led to a growing dependency on extra-curricular activities, especially cultural ones, to supply pupils with soft skills, confidence and the development of creative thinking.

A Centre for Cities Report from 2018 highlights this current dependence in UK schools on extra-curricular activities in the development of analytical and interpersonal skills, on the basis that they complement school-based activities, allowing application of skills learnt in the classroom to real-world scenarios: 97% of schools

indicated extra-curricular activities as their preferred way to develop these essential skills.

However, this reliance on extra-curricular activities contributes to an ever-greater social divide between those who have opportunities to develop their creative skills and those who do not, due to the disparity in quality and availability of extra-curricular activities offered by schools. Research by the Sutton Trust found that 37% of young people do not take part in any extra-curricular activities, indicating that over a third of all English students do not currently engage in the kind of activities needed to cultivate creative competencies. The Sutton Trust found that this is even more problematic for children from disadvantaged backgrounds, among whom over half (54%) do not have such opportunities. Opportunities may be further limited by socio-economic and geographic contexts, inhibited by a lack of cultural or transport infrastructure.

This failure to equally equip all children and young people with these essential soft skills can greatly disadvantage future prospects, in relation to prosperity and social mobility. In 2014 (Paterson et al) the All Party Parliamentary Group (APPG) on Social Mobility found strong connections between character, resilience and social mobility. The APPG defined character and resilience as:

“The attributes that enable individuals to make the most of opportunities that present themselves, to stick with things when the going gets tough, to bounce back from adversity and to forge and maintain meaningful relationships.”

These overlap with the attributes that can be developed through creative thinking. Nicky Morgan, former Education Secretary at DfE, now Secretary of State at DCMS, acknowledges the risk posed by inequality of opportunity to the development of character:

“A truly one-nation government must not accept that only some people deserve the opportunities to build character that will help them to get on in life.”

These inequalities exacerbate existing social divides. Those with economic and social advantages are already more likely to have access and seek out a broad and creatively oriented education that gives them a lead in life. Such differentiated opportunity entrenches social divisions and leave us with a restricted talent pool and leadership that is not representative of our nation.

A report in 2014 found that between the ages of 26 and 42, someone who has attended an independent school (usually with better resources for offering extra-curricular and cultural opportunities) will earn a total

of £193,700 more than someone who attends a state school.²⁰ A 2019 report by the Sutton Trust found that a disproportionate number of high-profile jobs are taken up by those who attended an independent school (65% of senior judges, 44% of newspaper columnists, compared to just 7% of the population who attend them).²¹ An IFS report from 2014 finds that six months after graduation, former pupils of independent schools earn on average £21,643 and those from state schools £18,919; 3.5 years after graduation the gap has widened: £28,592 for those from independent schools versus £24,044 from state schools.²²

The new Ofsted inspection framework considers quality of education to be reflected in an ambitious curriculum that is ‘designed to give all learners the knowledge and cultural capital to succeed in life’. The Commission endorses strongly a curriculum in which a wide range of cultural and creative activities are present in schools but also calls for cultural and creative opportunities to be available to all young children – in schools themselves at the end of the formal school day and in the communities and neighbourhoods in which young people live. Activities should be accessible in terms of timing – available in the evenings and weekends, but should also be accessible by recognising the richness of individual creativity, supporting young people to experience and build cultural capital on their own terms.

Opportunities to participate and create in cultural and creative activities in this way can be meaningful and relevant as shown by the Arts Council’s Creative People and Places programme and the success of BBC Get Creative. Two national bodies which exemplify a growing interest in linking extra-curricular activities to creativity are the Scouts with their Creative Challenge Award and the Royal Yachting Association’s emphasis on the role of creativity in learning to sail.

Additionally, the Commission calls for greater alignment and extension of existing out of school opportunities to include local provision in communities alongside national networks such as Saturday Clubs which include a range of disciplines from the arts to the sciences, and the National Citizens Service. Ensuring young people have access to high quality services after school is over will support them to exercise and recognise the value of their individual creativity.

5

CONCLUSION

The Durham Commission was established in response to the growing national and international interest in the importance and value of creativity and creative thinking in our society and its future.

The Commission concludes that creativity is not solely an abstract concept – it is experienced and expressed throughout life and across all sections of society, under many different names but sharing many characteristics. We also believe that creativity and creative thinking can be taught and that the exercise of creativity can be beneficial materially, socially and aesthetically to everyone at all ages.

As a result of our research, we assert that the integration of teaching for creativity in our education system will result in young people who have an ability to express their creativity and have the personal creative confidence that will support them in all aspects of their lives – not just in employment and economic success, but also in their relationships with others in their community and in their own identity, health and wellbeing.

Our work has been driven throughout by a strong belief that creative capacity and creative confidence should be an entitlement for all children and young people, regardless of their socio-economic or ethnic background, or the school they attend. The Commission has discovered that the opportunity to develop creativity and creative thinking is not equal across society, with too many young people at a disadvantage for reasons of geography, or socio-economic or ethnic background. This inequity cannot continue.

Schools have a key role to play in this process, but so too do parents and carers, local communities, and cultural institutions. More work will be needed to explore ways of recognising developing creativity in education, in employment and in everyday life, and in meeting the challenges we face on a personal, national and human level.

We have therefore made a series of recommendations that will stimulate change in the education system and provide equitable access to develop creative capacities in all children.

We know this change will not be sudden or immediate but we believe the recommendations provide a strong foundation from which teachers, schools, parents and carers and organisations can nurture creativity and creative thinking. Over the next year, the Commission will work with a range of organisations to progress the recommendations and will report in a year's time.

APPENDIX

Previous reports and initiatives to develop creativity in education

This table outlines some key initiatives and reports undertaken by or closely related to government relating directly or indirectly to creativity in schools.

Title	Key elements	Reflections on impact
<i>Report of the Central Advisory Council For Education into Primary education in England, 1967</i>	<p>Also known as the Plowden Report after its author, Lady Plowden.</p> <p>The report argues that learning should be playful, creative and driven by the desire to discover new things rather than organised around whole class teaching.</p> <p>Influenced by Dewey and Piaget, the report advocated child-centred learning: ‘At the heart of the educational process lies the child.’</p>	<p>Plowden signalled a different, ‘progressive’ approach to education with the emphasis on learner-centred-ness. Many subsequent reports have found themselves viewed as being either progressive or traditionalist depending on their view of the role of pupils and teachers.</p> <p>Plowden’s assertion that discovery learning was important but that it is always the best way has been fairly critiqued by some.</p> <p>The report triggered a series of reports from traditionalist viewpoints, notably the ‘Black Papers’, a series of articles on British education, published from 1969 to 1977 in the <i>Critical Quarterly</i>.</p>
<i>Arts in Schools: Principles, practice and provision, 1982</i>	<p>Inquiry sponsored by the Calouste Gulbenkian Foundation to consider the place of arts in the school curriculum.</p> <p>Among a range of well-argued suggestions for embedding the arts in schools, recommended that ‘well-informed pursuits of all kinds of creativity will enable us not only to cope more positively with the economic necessities of the world, but also to increase the potential for discovery and progress...’ and that ‘opportunities for expressive and creative work in the arts should be more widely developed as part of the daily work of primary schools’.</p>	<p>Despite the inclusion of arts in its title, this inquiry managed to give due credit to the importance of science education, too.</p> <p>The report pleased supporters of the arts and did not obviously antagonise those keen to make a case for the inclusion of other subjects in schools. But it did not lead to any significant policy changes.</p> <p>From 1985-1989 Ken Robinson was the director of the related Arts in Schools Project and it brought him and his ideas considerable prominence.</p>

Title	Key elements	Reflections on impact
<p><i>National Advisory Committee on Creative and Cultural Education</i> (NACCCE), 1999</p>	<p>Also known as the Robinson Report after its chair, Ken Robinson. Argued that a national strategy for creative and cultural education was essential to the process of providing a motivating education that fosters the different talents of all children.</p> <p>Adopted a broad and inclusive approach to creativity: 'Creativity is possible in all areas of human activity, including the arts, sciences, at work at play and in all other areas of daily life.'</p> <p>Argued for the universality and individuality of creativity: 'All people have creative abilities and we all have them differently. When individuals find their creative strengths, it can have an enormous impact on self-esteem and on overall achievement.'</p>	<p>Its definition of creativity is still widely referred to and adopted:</p> <p>'Imaginative activity fashioned so as to produce outcomes that are both original and of value.'</p> <p>Distinguished between <i>teaching creatively</i> and <i>teaching for creativity</i>.</p> <p>The New Opportunities Fund invested £180 million for out-of-school-hours activities and £20 million for combined out-of-school-hours activities/childcare</p> <p>The report led directly or indirectly to important initiatives such as Creative Partnerships and Artsmark</p> <p>The Government did not implement all of the report's recommendations with regard to the National Curriculum in England, although many elements were taken forward.</p>
<p>Early Learning Goals QCA/DfES, 2000</p>	<p>The early learning goals are set out within six areas of learning:</p> <ul style="list-style-type: none"> • Personal, social and emotional development • Communication, language and literacy • Mathematical development • Knowledge and understanding of the world • Physical development • Creative development 	<p>The Education Act 2002 made 'Creative Development' statutory in the Foundation stage as one the six areas of learning.</p>

Title	Key elements	Reflections on impact
<p><i>Schools: Achieving Success</i>, Department for Education and Skills, 2001</p>	<p>Main focus on raising standards with a recognition that after a period of focusing on essential skills of literacy and numeracy, good schools need to do more than this.</p> <p>Aimed to ‘make sure that by age 14 the vast majority of pupils have... Learned how to reason, think logically and creatively and to take increasing responsibility for their own learning’ (DfES, 2001: 18).</p> <p>Recognised the growing influence of technology on children’s learning (DfES, 2001: 20).</p> <p>Recognised the need to support teachers of all subjects to teach, ‘reasoning and logical and creative thinking through their subject.’ (DfES, 2001: 19).</p>	<p>Raised the status of creativity and the arts by pledging to provide a range of additional opportunities for creativity and curriculum enrichment.</p> <p>Further support for ‘the continued development of Creative Partnerships between schools and arts organisations in deprived areas to open up a wider range of learning opportunities’ (DfES, 2001: 28).</p> <p>While the education profession broadly welcomed the focus on 14-19 and flexibility in Key Stage 4, advocates of creativity found only limited encouragement.</p> <p>Explicitly associated creativity with character education and with the new Science Year which ‘aims to stimulate creativity and generate enthusiasm for science-based learning’.</p>

Title	Key elements	Reflections on impact
Creative Partnerships, DCMS, 2002-2011	<p>Creative Partnerships (CP) was first established as a two-year pilot scheme in 2002 in 16 local areas. It was rolled out nationally from 2004. It was funded mainly by the Department for Culture, Media and Sport (DCMS) with a contribution from the Department for Children, Schools and Families (DCSF) and supported by Arts Council England.</p> <p>Goal was to increase participation of young people, schools and the wider community in creative and cultural activities, with a particular interest in disadvantaged areas. The programme worked with some 1 million children, and over 90,000 teachers in more than 8000 projects in England.</p> <p>While using the word 'creativity', CP explicitly defined it very broadly to include, for example, scientists and architects, and looked beyond education to the issue of employability:</p> <p>'We believe creativity is the wider ability to question, make connections, innovate, problem solve and reflect critically. These are skills that are demanded by today's employers.'</p>	<p>Ofsted reviewed CP in 2006 and was broadly positive about its impact, specifically noting:</p> <p>'Often the outcomes of programmes could be seen in changed attitudes and behaviours, and the demonstration of creative approaches to work. This represents a significant achievement; it included teachers who previously lacked belief in their own creativity and ability to inspire creativity in others, and pupils who were previously unconvinced by approaches to learning or the value of education.'</p> <p>CP created one of the most rigorous archives of research and evaluative material on the impact of creativity in schools:</p> <p>https://archive.is/20131017205459/http://www.creativitycultureeducation.org/tag/research</p> <p>In 2015 this archive was critically reviewed by the University of Nottingham. It found evidence of varying degrees of robustness suggesting that CP:</p> <ol style="list-style-type: none"> (1) Improved attendance (2) Improved motivation and application (3) Improved learning, and (4) Improved 'soft skills' <p>CP was a proof of concept of the efficacy of creativity in schools which also showed how, for creativity to be embedded in schools, a level of resourcing and infrastructure is required.</p>

Title	Key elements	Reflections on impact
<p><i>Excellence and Enjoyment</i>, DCSF, 2003</p>	<p>A strategy for primary schools which was the forerunner of the National Primary Strategy. The document sought to combine a focus on the three part structure of lessons favoured by the Literacy and Numeracy strategies alongside a suggestion that learning should be fun and enjoyable.</p> <p>‘The best primary schools have developed timetables and teaching plans that combine creativity with strong teaching in the basics.’</p> <p>‘Make learning vivid and real: develop understanding through enquiry, creativity, e-learning and group problem solving.’</p>	<p>This document exemplified a longstanding debate in English education, between whole class teaching of the kind promoted by many at this time and the kinds of beliefs exemplified by the Plowden Report of nearly 40 years earlier.</p> <p>Began to suggest that standards and creativity are not mutually exclusive, that both excellence and enjoyment are elements of successful teaching.</p> <p>While not specifically focusing on creativity, argued that children are most likely to gain from their lessons if they are excited and engaged. Nevertheless <i>Excellence and Enjoyment</i> fails to mention any of the recommendations about creativity from the NACCCE report.</p>
<p>Creativity: Find it, Promote It! QCA, 2004</p>	<p>Web and paper-based materials promoting pupils’ creative thinking and behaviour across the curriculum at Key Stages 1, 2 and 3 – practical materials for schools.</p> <p>By promoting creativity, teachers can give all pupils the opportunity to discover and pursue their particular interests and talents. We are all, or can be, creative to some degree. Creative pupils lead richer lives and, in the longer term, make a valuable contribution to society. (QCA 2004: 9)</p> <p>When pupils are writing a poem, choreographing a dance or producing a painting, their work can be unique if it expresses their ideas and feelings. But what about work in subjects like science, history and maths? While it would be wonderful for a pupil to be the first person to discover a new scientific principle, this is highly unlikely. Does this mean that pupils can’t be creative in these subjects? Not at all. (QCA 2004: 77-8)</p>	<p>These guidance materials frame creativity in a number of interesting ways.</p> <p>First, it stresses the benefits to the individual and to society of living ‘richer’ lives.</p> <p>Second, it stresses that creativity is located in all of the curriculum (science is the example given) rather than being the preserve of the arts.</p>

Title	Key elements	Reflections on impact
<p><i>Nurturing Creativity in Young People. A report to Government to inform future policy</i>, DCMS, 2006.</p>	<p>Also known as the Roberts Report after its author, Paul Roberts.</p> <p>Found there was a ‘rich array of creativity work in pre- and main-school activity strongly, but not systemically, supported by the many creative programmes, projects and agencies.’</p> <p>Offered a framework for the further development of creativity for children and young people ‘that starts with the Early Years, is embedded in (but goes beyond) mainstream education, develops a personalised approach, seeks to be inclusive of and responsive to the voice of children and young people and lead to pathways into Creative Industries’.</p> <p>Introduced the concept of an individual creative portfolio as a way of bridging formal and informal education.</p>	<p>Report had a lasting influence in emphasising how creativity can prepare young people for work within the creative industries.</p> <p>Established a wider, ‘moral’ case for developing creativity as part of the development of young people as citizens and learners (links to the Identity theme).</p> <p>The Cultural and Creative Education Board (CCEAB) was set up to implement the recommendations of the report.</p> <p>The Government’s formal response was positive in general terms but limited in any specific commitments.</p> <p>Importantly, in its use of earlier NACCCE and QCA definitions it signals an inclusive approach:</p> <p>We believe, as QCA makes clear, that:</p> <ul style="list-style-type: none"> • Creativity involves thinking or behaving <i>imaginatively</i> • This imaginative activity is <i>purposeful</i>: that is, it is directed to achieving an objective • These processes must generate something <i>original</i> • The outcome must be of <i>value</i> in relation to the objective <p>Creativity is not limited to the arts but should be embedded across the whole curriculum. Creativity is not at odds with raising standards or an end in itself but should produce outcomes of real value.</p>
<p>Joint memorandum submitted to Education Select Committee, DCSF and DCMS, 2007</p>	<p>Quotes QCA in arguing that:</p> <p>‘...when pupils are thinking and behaving creatively in the classroom, they are likely to be:</p> <ul style="list-style-type: none"> • questioning and challenging • making connections and seeing relationships • envisaging what might be • exploring ideas, keeping options open • reflecting critically on ideas, actions and outcomes. <p>These opportunities should be available, in an age-appropriate way, throughout children’s schooling. Creativity should be embedded across the whole curriculum.’</p>	<p>One of the most thorough, well-argued, consensual, fair-minded and broad ranging pieces of writing about creativity in schools in the last two decades.</p> <p>Covers the issue of creativity and cultural education, the nature of creativity, the contribution of the arts, creativity in the curriculum, parents, creativity and standards, initial teacher training, assessment, creativity and the creative industries, diploma and the relationship to enterprise education.</p> <p>https://publications.parliament.uk/pa/cm200607/cmselect/cmeduski/1034/7101002.htm</p>

Title	Key elements	Reflections on impact
<p><i>Creative Britain New Talents for a New Economy</i>, DCMS, 2008</p>	<p>Made strong links between the success of Britain's economy and creativity and argued for a much more strategic approach, strongly linking creativity with culture:</p> <p>'The journey mapped out in this plan covers the whole creative process from the grassroots to the global marketplace. It starts in schools, with a new commitment to culture in children's education. It links education and the world of work, and includes a major signal of the Government's intent by supporting the creative industries to expand significantly apprenticeships to 5,000 a year by 2013 right across the country.'</p> <p>Introduced a 'find your talent' programme for schools, piloting five hours of cultural activity a week for children and young people with visits to galleries, museums and the theatre and learning a musical instrument.</p>	<p>Change in government in 2010 led to some recommendations only being partly implemented, or abandoned entirely.</p>

Title	Key elements	Reflections on impact
<p>Personal Learning and Thinking Skills (PLTS), Qualifications and Curriculum Development Agency (Qcda), 2009-2013</p>	<p>Developed by the Qcda, the PLTS has developed a framework for PLTS, which comprises six groups of skills:</p> <ol style="list-style-type: none"> 1. independent enquiry skills 2. creative thinking skills 3. reflective learning skills 4. team working skills 5. self-managing skills 6. effective participating skills. <p>‘Young people think creatively by generating and exploring ideas, making original connections. They try different ways to tackle a problem, working with others to find imaginative solutions and outcomes that are of value.</p> <p>Young people:</p> <ul style="list-style-type: none"> • generate ideas and explore possibilities • ask questions to extend their thinking • connect their own and others’ ideas and experiences in inventive ways • question their own and others’ assumptions • try out alternatives or new solutions and follow ideas through • adapt ideas as circumstances change.’ 	<p>For a period of time the PLTS framework offered teachers in primary and secondary schools a clear framework against which they could map the different subjects of the school curriculum.</p> <p>https://webarchive.nationalarchives.gov.uk/20110215111658/http://curriculum.qcda.gov.uk/key-stages-3-and-4/skills/personal-learning-and-thinking-skills/index.aspx</p> <p>PLTS were seen by some as an alternative to subject disciplines, somehow replacing them by becoming decontextualized lessons in skills.</p> <p>They also, potentially, suffered by association with the phrase much used at this time – 21st century skills.</p>
<p><i>Cultural Education in England</i>, Department for Culture, Media & Sport and Department for Education, 2012</p>	<p>Also known as the Henley Report after its author Darren Henley, argued that all children should have access to cultural education:</p> <p>‘Schools remain the single most important place where children learn about Cultural Education. This takes the form of structured curriculum lessons in subjects such as history, English literature, art and design, design technology, drama, dance, film studies and music, alongside programmes of after school activities for children who wish to pursue a passion for a particular art form.’</p> <p>Made 24 far reaching recommendations which resulted in the introduction of networks of Cultural Education Partnerships and Heritage Schools, the Museums and Schools programme, the BFI Academy and the National Youth Dance Company.</p>	<p>Some findings fed into the Government’s policy paper, <i>Cultural Education: A Summary of Programmes and Opportunities</i>, published in July 2013.</p> <p>Arguably the emphasis on culture perpetuated the idea that creativity is an attribute of the arts.</p> <p>The government has not implemented many findings in relation to the National Curriculum and statistics show increasingly low uptake of arts subjects.</p>

Title	Key elements	Reflections on impact
<p><i>Warwick Commission: The Future of Cultural Value</i>, Warwick University, 2015</p>	<p>The key message from this report is that the government and the cultural and creative industries need to take a united and coherent approach guaranteeing equal access for everyone to a rich cultural education and the opportunity to live a creative life.</p> <p>Five key goals:</p> <ol style="list-style-type: none"> 1. A cultural and creative ecosystem generating stronger cultural wellbeing and economic growth and opportunity for all citizens and communities. 2. Production and consumption of culture and creativity should be enjoyed by the whole population and deliver the entitlement of all to a rich cultural and expressive life. 3. A world-class creative and cultural education for all to ensure the wellbeing and creativity of the population as well as the future success of the cultural and creative industries ecosystem. 4. A thriving digital cultural sphere that is open and available to all. 5. A vibrant creative life at local and regional levels that reflects and enriches community expressions of identity, creativity and culture across the UK. 	<p>The Warwick Commission promoted the idea that creativity is a human right rather than an ‘add-on’.</p> <p>Highlighted the decline in arts subjects which generated much debate following publication.</p> <p>Furthered the acknowledgement that a digital revolution is occurring and changing culture and creativity, especially with emphasis on individualised solutions rather than the opportunities for community and group engagement.</p> <p>Does not discuss creativity in subjects outside of the arts.</p>

Title	Key elements	Reflections on impact
<p><i>Understanding the value of arts & culture – The AHRC Cultural Value Project, 2016</i></p>	<p>The Cultural Value Project, supported by the Arts and Humanities Research Council, looked into the question of why the arts and culture matter, and how we capture the effects that they have.</p> <p>Suggests a number of areas of added value, some of which are original:</p> <ul style="list-style-type: none"> • reflective individuals • engaged citizens • peace building and healing after armed conflict • cities and urban life • economic value • creating a complex ecology of talent, finance, content and ideas • improving health and wellbeing • long-term arts engagement and positive health outcomes • arts in education • arts and cultural engagement and subjective wellbeing <p>Reflects on how it has become 'customary' to consider how the arts impacts on other areas of learning through transferable skills and knowledge. Questions the place of the arts within a hierarchy of disciplines.</p>	<p>Broadened the academic and policy debate around the types of participation in 'cultural' activities and significant research into other modes of participation.</p> <p>Questioned notions of value and hierarchy and challenged conception about 'non-participation' leading to increased conversations around 'public culture'.</p> <p>Limited to academic literatures and to some extent only AHRC funded areas.</p> <p>Highlighted the limited evidence for arts education supporting attainment, and recognises current limitations of theory and methodology. Points to strong evidence of benefits of arts education as cultivating confidence, motivation and pro-social behaviours as well as cognitive abilities.</p> <p>Raised idea of the arts generating 'habits of mind' such as 'following curiosities and possibilities, a willingness to practice repeatedly, not taking things for granted and developing a strong inner critic.'</p>
<p><i>Towards cultural democracy: Promoting cultural capabilities for everyone, Kings College London, 2017</i></p>	<p>Directly addresses its findings and recommendations to 'policy makers, arts leaders, people who run creative groups – choirs, writing circles, knitting clubs and anything besides – and the millions of people who simply go ahead and create culture every day, in bands with their mates, hand-making birthday cards at the kitchen table, and putting on a karaoke night at the local pub' (Kings College London, 2017: 1-2) .</p> <p>Culture can be enabled or constrained by its environment.</p> <p>Much culture evolves organically and only a small proportion of the UK population makes regular use of publicly funded cultural organisations and activities.</p>	<p>The report has highlighted the need for <i>everyday creativity</i> (which it defines as 'the enormously diverse range of cultural and creative practices that take place outside of the publicly funded arts and the profit-making creative industries').</p> <p>Confined to the arts, does not talk about everyday creativity needed outside the cultural sector which is traditionally seen as arts based.</p>

Title	Key elements	Reflections on impact
<p><i>Developing Creative Education after Brexit: A Plan for Economic Growth, 2018</i></p>	<p>The publication of this cross-party report establishes the importance of the creative industries in the UK.</p> <p>Prioritises creative thinking as a policy:</p> <p>‘Place design and creative thinking at the heart of Government to spread best practice across the public sector’ (page 4).</p> <p>Advocates changing STEM (Science, Technology, Engineering and Maths) to STEAM (with addition of art) in the acronym.</p> <p>Advises that the government should reconsider and fully incorporate art and design into the English Bacallaureate.</p>	

REFERENCES

- Abrami, P. et al. (2015). Strategies for Teaching Students to Think Critically: A Meta-Analysis. *Review of Educational Research*. 85:2, p 275-314.
- All Parliamentary Design and Innovation Group (2018). *Developing Creative Education after Brexit: A Plan for Economic Growth*. London: Policy Connect.
- All-Party Parliamentary Group for Music Education, the Incorporated Society of Musicians and the University of Sussex (2019). *Music Education: State of the Nation*.
- Amabile, T. (1996). *Creativity in Context*. Boulder, CO: Westview Press.
- Arts Council England (2019). *Draft Strategy for 2020-2030: Public Engagement Report*. Traverse. – (2019). *Arts and Cultural Education in Outstanding Schools: Research Study Undertaken by the Royal Shakespeare Company for Arts Council England*. Pending.
- Baer, J. (1998). The Case for Domain Specific Creativity. *Creativity Research Journal*, 11:2, p. 173-177.
- Baer, J. (2010). Is Creativity Domain Specific? In J. Kaufman & R. Sternberg (Eds.), *The Cambridge Handbook of Creativity*. Cambridge: p. 321-341.
- Baer & McKool. (2009). Assessing Creativity Using the Consensual Assessment Technique. In C. Schreiner (Ed.), *Handbook of Assessment Technologies, Methods, and Applications in Higher Education*. Pennsylvania: IGI Global.
- Bakhshi, H., Frey, C. & Osborne, M. (2015). *Creativity vs. Robots: The Creative Economy and the Future of Employment*. London: Nesta.
- Bakhshi, H., Downing, J., Osborne, M. & Schneider, P. (2017). *The Future of Skills: Employment in 2030*. London: Pearson and Nesta.
- Bazalgette, P. (2017). *Independent Review of the Creative Industries*. London: Department for Digital, Culture, and Sport.
- Beghetto, R., & Kaufman, J. (2014). Classroom Contexts for Creativity. *High Ability Studies*. 25:1, p. 53-69.
- Besemer, S. & O'Quinn. (1987). Creative Product Analysis: Testing a Model by Developing a Judging Instrument. In Isaksen, S. (Ed.), *Frontiers of Creativity Research: Beyond the Basics*, p. 341-357. Buffalo: Bearly Limited.
- Blackman, R. (2019). More Creativity, for More People, in More Places. Arts Council England.
- Bowyer, G. (2019). *Switched On: Exploring the Challenge of Adequate Digital Access for All Children and Young People*. Mountain View, CA: Carnegie.
- BritainThinks. (2019). *Research with Headteachers and Governors to Understand Creativity and Creative Thinking in Schools*. London: BritainThinks.
- Broadbent, E. at al. (2017) *What the World's Young People Think and Feel. Generation Z: Global Citizenship Survey*. Varkey Foundation.
- Broadwood, J. et al. (2014). *Arts and Kindness*. Canterbury: People United.
- Brown, J. & Duguid, P. (2000). *The Social Life of Information*, Boston, MA: Harvard Business School Press.

- Bughin, J. et al. (2018). *Skill Shift: Automation and the Future of the Workforce*. Mckinsey Global Institute.
- Care, E., Scoular, C. & Griffin, P. (2016). Assessment of Collaborative Problem Solving in Education Environments. *Applied Measurement in Education*, 29:4, p 250-264.
- Children's Commissioner for England (2018). *Children's Mental Health Briefing*.
- Chui, M., Manyika, J., & Miremadi, M. (2016). *Where Machines Could Replace Humans – and Where they Can't (Yet)*. Mckinsey Global Institute.
- Church of England. (2016). *Church of England Vision for Education*. London: Church of England.
- Commission on Sustainable Learning for Life, Work and a Changing Economy. (2018). *Report from the Commission on Sustainable Learning for Work, Life and a Changing Economy*. London: Pearson.
- Cooper, B. (2018). *Primary Colours: The Decline of Arts Educations in Primary Schools and How It Can Be Reversed*. London: Fabian Society.
- CBI (2012). *First Steps: A New Approach for our Schools*. London: Confederation for British Industry.
- CBI (2016). *The Right Combination: Education and Skills Survey 2016*. London: Confederation for British Industry.
- CBI (2019). *Educating for the Modern World: CBI/Pearson Education and Skills Annual Report*. London: Confederation for British Industry.
- Comunian, & Gilmore, A. (2015). *Beyond the Creative Campus: Reflections on the Evolving Relationship between Higher Education and the Creative Economy*. London: King's College, London.
- Conner, T. DeYoung, C. & Silvia, P. (2018). Everyday Creative Activity as a Path to Flourishing, *The Journal of Positive Psychology*, 13:2, p. 181-189.
- CooperGibson Research. (2017). *Understanding Schools' Responses to the Progress 8 Accountability Measure: Research Report*. London: Department for Education.
- Cooper L., Benton T., & Sharp C. (2011). *The Impact of Creative Partnerships on Attainment and Attendance in 2008-9 and 2009-10*. Slough: NFER.
- Craft, A. (2010). Possibility Thinking and Wise Creativity: Educational future in England? In Beghetto, R. & Kaufman, J. (Eds.), *Nurturing Creativity in the Classroom*. New York: Cambridge University Press.
- Craft, A., & Jeffrey, B. (2008). Creativity and Performativity in Teaching and Learning: Tensions, Dilemmas, Constraints, Accommodations and Synthesis. *British Educational Research Journal*, 34:5, p 577-584.
- Cremin, T., Burnard, P. & Craft, A. (2006). Pedagogy and Possibility Thinking in the Early Years. *International Journal of Thinking Skills and Creativity*, 1, p. 108-119.
- Cremin, T. (2009). Creative Teachers and Creative Teaching. In Wilson, A. (Ed.) *Creativity in Primary Education*, p. 36-46.
- Csikszentmihalyi, M. (1996). *Creativity: Flow and the Psychology of Discovery and Invention*. New York, NY: HarperCollins Publishers.
- Culligan, K., Dubber, J. & Lotten, M. (2014) *As Others See Us: Culture, Attraction and Soft Power*. London: British Council and Ipsos MORI.

- Cultural Cities Enquiry. (2019). *Cultural Cities Enquiry, Enriching UK Cities through Smart Investment in Culture*. Manchester: Core Cities.
- Davies, D. et al. (2013). Creative Learning Environments in Education: A Systematic Literature Review. *Thinking Skills and Creativity* 8, p. 80-91.
- Davies, D. et al. (2014). The Roles and Development Needs of Teachers to Promote Creativity: A Systematic Review of Literature. *Teaching and Teacher Education* 34–41.
- Davies, L., Newton, L. and Newton, D. (2018). Creativity as a Twenty-first-Century Competence: An Exploratory Study of Provision and Reality. *Education* 3-13, 46:7, p. 879-891.
- Department for Education. (2014). *National Curriculum: Framework Document*. London: DfE.
- Department for Education. (2017). *Statutory Framework for the Early Years Foundation Stage: Setting the Standards for Learning, Development and Care for Children from Birth to Five*. London: DfE.
- Duffy, B. (2006). *Supporting Creativity and Imagination in the Early Years*. Oxford: Oxford University Press.
- Dunn, J. & Kendrick, C. (1982). The Speech of Two-three years Old to Infant Siblings: 'Baby Talk' and the Context of Communication. *Journal of Child Language*, 9 p. 579-595.
- Easton, E., & Djumalieva, J. (2018). *Creativity and the Future of Skills*. London: NESTA.
- Education Scotland. (2013). *Education Across Learning 3-18*. Livingston: Education Scotland.
- Fancourt, D. & Steptoe, A. (2019). Effects of Creativity on Social and Behavioural Adjustment in 7- to 11-year-old Children. *Annals of the New York Academy of Sciences*. 1438:1, p. 30-39.
- Fujiwara et al. (2014). *Quantifying and Valuing the Wellbeing Impacts of Culture and Sport*. London: DCMS.
- Gajda, A., Karwowski, M. & Beghetto, R. A. (2017). Creativity and Academic Achievement: A Meta-Analysis. *Journal of Educational Psychology*, 109: 2, p. 269-299.
- Gorard, S., Siddiqui, N., et al. (2015). *Philosophy for Children: Evaluation Report and Executive Summary*. London: Education Endowment Foundation.
- Guihn, Martin, Emerson, S. & Gouzouais, P. (2019). A Population-level Analysis of Associations between School Music Participation and Academic Achievement. *Journal of Educational Psychology* (advance online publication).
- Guilford, J. (1950). Creativity. *American Psychologist*, 5 p. 444-454.
- Gutman, L. & Schoon, I. (2013). *The Impact of Non-Cognitive Skills on Outcomes for Young People: Literature Review*. London: Institute of Education, University of London.
- Hall, C. & Thomson, P. (2017). *Inspiring School Change: Transforming Education through the Creative Arts*. Routledge.
- Heller-Sahlgren, Gabriel. (2018). *The Achievement-Well-Being Trade-off in Education*. London: Centre for Education Economics.

- Henley, D. (2018). *Creativity: Why It Matters*. London: Elliott & Thompson.
- Hennessy, B. & Amabile, T. (2010). Creativity. *Annual Review of Psychology* 61, p. 569-98.
- Higgins, S., Hall, E. Baumfield, V. and Moseley, D. (2005). *A Meta-Analysis of the Impact of the Implementation of Thinking Skills Approaches on Pupils*. Institute of Education: University of London.
- Horton, S., H. Kim, et al. (2017). *New Data on the Breadth of Skills Movement: Consolidation*. Washington: Brookings Institution.
- House of Commons Library (2018). *Briefing Paper CBP8411: UK Youth Parliament*.
- Howard-Jones, P. (2014). *Neuroscience and Education: A Review of Educational Interventions and Approaches Informed by Neuroscience*. Education Endowment Foundation.
- Hunsaker, S., & Callahan, C. Creativity and Giftedness: Published Instrument Uses and Abuses. *Gifted Child Quarterly*. 39, p. 110-114
- Ings, R., Crane, N. & Cameron, M. (2010). *Be Creative Be Well: Arts, Wellbeing and Local Communities. An Evaluation*. London: Arts Council.
- Kaufman, J. C., & Baer, J. (Eds.) (2005). *Creativity Across Domains: Faces of the Muse*. Routledge.
- Kidron, B., Evans, A., & Afia, J. (2018). *Disrupted Childhood: The Cost of Persuasive Design*. 5Rights Foundation.
- King's College London. (2017). *My Primary School is at the Museum: Inspiring Schools and Museums across the UK to Build Museum-School Partnerships*. London: CulturalInstitute KCL.
- Kokotsaki, D., & Newton, D. (2015). Recognizing Creativity in the Music Classroom. *International Journal of Music Education*, 33:4, p. 491-508.
- Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Local Government Association. (2017). *People, Culture, Place: The Role of Culture in Placemaking*. London: LGA.
- Londesborough, M., (Ed.). (2016). *Possibility Thinking: Reimagining the Future of Further Education and Skills*. London: RSA.
- Lou, et al., (2015). *New Vision for Education: Unlocking the Potential for Technology*. Geneva: World Economic Forum.
- Lubart, T. (2001). Models of the Creative Process: Past, Present and Future, *Creativity Research Journal*, 13:3-4, p. 295-308.
- Lucas, B., Claxton, G. & Spencer, E. (2013). *Progression in Student Creativity in School: First Steps towards New Forms of Formative Assessments*. Paris: OECD.
- Lucas, B. (2016). A Five-Dimensional Model of Creativity and its Assessment in Schools. *Applied Measurement in Education*, 29:4. p. 278-290.
- Lucas, B. & E. Spencer (2017). *Teaching Creative Thinking: Developing Learners who Generate Ideas and think Critically*. Crown House Publishing Ltd.
- MacLaren, I. (2012). The Contradictions of Policy and Practice: Creativity in Higher Education. *London Review of Education*. 10:2, p. 159-172.

- McLeish, T. (2019). *The Poetry and Music of Science: Comparing Creativity in Science and Art*. Oxford University Press.
- Magrini, L. & Carton, N. (2018). *Can Cities Outsmart the Robots? The Future of Skills in UK Cities*. London: Centre for Cities.
- Manning, M. et al. (2017). The Relationship between Teacher Qualification and the Quality of the Early Childhood Education and Care Environments. *A Campbell Systematic Review*, 1.
- Marsh, J. (2010). *Childhood, Culture and Creativity: A Literature Review*. Newcastle upon Tyne: Creativity, Culture and Education.
- Marsh, J., et al. (2015). *Exploring Play and Creativity in Pre-schoolers' use of Apps: Final Project Report*. Technology and Play.
- Marsh, J. et al. (2018). Play and Creativity in Children's use of Apps. *British Journal of Educational Technology*, 49:5, p. 870-882.
- Maslow, A. (1968). *Toward a Psychology of Being*. New York: Wiley.
- Maslow, A. (1943). A Theory of Human Motivation. *Psychological Review*, 50: 4, p. 370–96.
- Moger, P. and Bagley, C. (2018). A Space for Policy Legacy: An Ethnographic Exploration of a Secondary School's Commitment to Creativity after National Policy Priorities have changed. *Ethnography and Education*, 14:1, p. 101-118.
- National Advisory Committee on Creative and Cultural Education (1999). *All Our Futures: Creativity, Culture & Education. Report to the Secretary of State for Education and Employment, the Secretary of State for Culture, Media and Sport*. London: Department for Education and Employment.
- Newton, D. & Newton, L. (2009). Some Student Teachers' Conceptions of Creativity in School Science. *Research in Science & Technological Education*, 27, p. 45-60.
- Newton, L. (Ed.) (2012). *Creativity for a New Curriculum: 5-11*. Abingdon: Routledge.
- OECD (2015). *Intervention and Research Protocol for OECD Project on Assessing Progression in Creative and Critical Thinking Skills in Education*. Paris, Centre for Educational Research and Innovation (CERI) Governing Board.
- OECD Directorate for Education and Skills (2018). *Framework for the Assessment of Creative Thinking in PISA 2021 (second draft)*. Paris: OECD
- Office for Standards in Education (2019). *The Education Inspection Framework*. London: Ofsted.
- Okpara, F. (2007). The Value of Creativity and Innovation in Entrepreneurship. *Journal of Asia Entrepreneurship and Sustainability*, 3.
- Paterson, C., Tyler, C & Lexmon, J. (2014). *Character and Resilience Manifesto*. London: All-Party Parliamentary Group on Social Mobility.
- Pfeiffer, S. I. (2012). *Serving the Gifted, Evidence-Based Clinical Psychoeducational Practice*. London: Routledge.
- Policy Connect. (2018). *Developing Creative Education After Brexit: A Plan for Economic Growth*. London: Policy Connect.
- PwC (2018). *Workforce of the Future: The Competing Forces Shaping 2030*.

- Resnick, L. (1999). Making America Smarter. *Education Week Century Series*. 18: 40, p. 38-40.
- Roberts, P. (2006). *Nurturing Creativity in Young People : a Report to Government to Inform Future Policy*. London: Department for Culture, Media and Sport.
- Rt Hon Sec of State for Education (2019). *Independent Panel Report: Post-18 Review of Education and Funding*. DfE: HM Stationery Office
- Runco. M & Pritzker. S. (2011). *Encyclopedia of Creativity*. Encyclopedia of Creativity, 2nd Edition. Boston, MA: Academic Press/Elsevier.
- Runco, M. & Jaeger, G. (2012). The Standard Definition of Creativity. *Creativity Research Journal*, 24:1, p. 92-96.
- Silvia, P., Kaufman, J. & Pretz, J. (2009). Is Creativity Domain-Specific? Latent Class Models of Creative Accomplishments and Creative Self-Description. *Psychology of Aesthetics, Creativity and the Arts*, 3:3.
- Sorrell, J., Roberts, P., & Henley, D. (2014). *The Virtuous Circle: Why Creativity and Cultural Education Count*. London: Elliott and Thompson.
- Spencer, E., Lucas, B & Claxton, G. (2012). *Progression in Creativity: Developing New Forms of Assessment. A Literature Review*. Newcastle Upon Tyne: Creativity, Culture & Education.
- Sprague, M & Parsons, J. (2012). The Promise of Creativity. *Learning Landscapes*, 6, p. 389-407.
- Sutton Trust. (2014). Extra-Curricular Inequality. Research brief.
- Sutton Trust and Social Mobility Commission. (2019). *Elitist Britain: The Educational Backgrounds of Britain's Leading People*.
- Thomson, P. & Hall, C. (2018). *Time to Listen: Evidence from the Tracking Arts Learning and Engagement [TALE] Project*. Nottingham: University of Nottingham.
- Till, A., Ratcheva, V, & Zahidi S. (2018). *The Future of Jobs Report 2018*. Switzerland: World Economic Forum.
- Tisdall, L. (2019). *A Progressive Education? How Childhood Changed in Mid Twentieth-Century English and Welsh Schools*. Manchester: Manchester University Press.
- Torrance, E. (1977). *Creativity in the Classroom*. Washington, DC: National Education Association.
- Trades Union Council (2019). *Platform Work in the UK 2016-2019*. Hatfield: Statistical Services and Consultancy Unit (SSCU), University of Hertfordshire.
- Treffinger, D., Young, G., Selby, E. & Shepardson, C. (2002). *Assessing Creativity: A Guide for Educators*. Connecticut: The National Research Centre on the Gifted and Talented.
- Trevarthen, C. & Malloch, S. N. (2000) The Dance of Wellbeing: Defining the Musical Therapeutic Effect. *Nordisk Tidsskrift for Musikterapi*, 9:2, p. 3-17.
- Tripney, J. et al. (2010). *CASE: Understanding the Drivers, Impact and Value of Engagement in Culture and Sport*. London: Institute of Education, University of London.
- Turner, S. (2013). Teachers' and Pupils' Perceptions of Creativity across Different Key Stages. *Research in Education*, 89: p. 23-40.

Villalba, E. (2008). *On Creativity: Towards an Understanding of Creativity and its Measurements*. Luxembourg: Office for Official Publications of the European Communities.

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

Woolf, F. and Tambling, P. (2018). *Building a Creative Nation: Current and Future Skills Needs*. Creative and Cultural Skills & The National Skills Academy.

FOOTNOTES

- ¹ Cultural Cities Enquiry, Enriching UK cities Through Smart Investment in Culture (Core Cities: 2019); People, Culture, Place: The Role of Culture in Placemaking (Local Government Association: 2017).
- ² <https://www.ons.gov.uk/businessindustryandtrade/changesstobusiness/businessbirthsdeathsandsurvivalrates/adhocs/010183analysisofactiveenterprisesintheukbysmallandmediumenterprisesandemploymentsizeband2004to2017>.
- ³ <https://www.tuc.org.uk/news/uk%E2%80%99s-gig-economy-workforce-has-doubled-2016-tuc-and-feps-backed-research-shows>.
- ⁴ <https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry/table1c>.
- ⁵ <https://futureskills.pearson.com/research/assets/pdfs/technical-report.pdf>.
- ⁶ https://www.artscouncil.org.uk/sites/default/files/download-file/Travese_Draft_strategy_2020_30_Public_Research_Report_June2019_0.pdf.
- ⁷ <https://files.digital.nhs.uk/A6/EA7D58/MHCYP%202017%20Summary.pdf>.
- ⁸ <https://researchbriefings.files.parliament.uk/documents/CBP-8411/CBP-8411.pdf>.
- ⁹ <https://www.childrenscommissioner.gov.uk/publication/childrens-mental-health-briefing/>.
- ¹⁰ <https://www.culturehealthandwellbeing.org.uk/appg-inquiry/>.
- ¹¹ <https://www.artscouncil.org.uk/publication/ten-year-strategy-evidence-children-and-young-people>.
- ¹² https://www.artscouncil.org.uk/sites/default/files/download-file/BTBD%20-%20What%20arts%20and%20culture%20means%20to%20young%20people_0.pdf
- ¹³ <https://researchtale.files.wordpress.com/2019/07/time-to-listen-tale-project-final-report.pdf>.
- ¹⁴ <https://www.ifs.org.uk/uploads/Presentations/Education-Spending-in-England-2019.pdf>.
- ¹⁵ <https://www.nasuwf.org.uk/article-listing/teachers-paying-to-provide-basics-for-pupils.html>.
- ¹⁶ <https://www.ism.org/images/images/State-of-the-Nation-Music-Education-WEB.pdf>.
- ¹⁷ Arts and Cultural Education in Outstanding Schools: Research Study Undertaken by the Royal Shakespeare Company for Arts Council England. Pending.
- ¹⁸ <https://www.hogrefe.fr/produit/creativite-formation-epoc/>.
- ¹⁹ https://www.oph.fi/english/curricula_and_qualifications/basic_education/curricula_2014#.
- ²⁰ <http://www.smf.co.uk/press-release-private-school-premium-of-194000-revealed-in-new-report/>.
- ²¹ <https://www.suttontrust.com/research-paper/elitist-britain-2019/>.
- ²² <https://www.ifs.org.uk/publications/7419>.
- ²³ <https://www.artscouncil.org.uk/blog/more-creativity-more-people-more-places> & <https://getcreativeuk.com>.

DURHAM COMMISSION 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 pedagogies and practices that cultivate creativity in young people.

