CREATIVE LEARNING IN SCHOOLS: WHAT IT IS AND WHY IT MATTERS

A RAPID EVIDENCE SCAN

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THE IMPORTANCE AND IMPACT OF DEVELOPING CREATIVITY IN SCHOOLS

The evidence at a glance

Our review of the evidence suggests that:

1. The field of creativity is internationally well-developed and, over the last fifty years, there has been a growing understanding of creative learning in schools.

2. Creativity and hence creative learning are very broad concepts. Nevertheless creative learning can be defined in ways which teachers and practitioners find helpful. In our review we offer a model published by OECD and developed by an Australian school as a template.

3. There is general agreement that, like many capabilities, creativity can be learned.

4. There is a strong global consensus that creativity is an important capability in the 21st Century and, consequently, is a valued outcome of schooling.

5. Creative teachers and other practitioners report the many positive outcomes that young people gain from creative learning. But systematic evidence for the wider benefits of creative learning is less strong. Nevertheless there is the beginning of an encouraging evidence base.

1. CONTEXT

Across the world most nations want their citizens to be creative.[1] Countries believe that, if their people are more creative they will in turn be likely to be, among other things, better at problem-solving, more entrepreneurial, happier and more successful in life. If creativity is a valued attribute, then it follows that, unless it is an inherited trait, it needs to be learned. While researchers disagree as to whether you can teach all aspects of creativity, there is sufficient unanimity that much is learnable (Torrance, 1970; Perkins, 1995; Csikszentmihalyi, 1996). Most national governments recognise that, while creativity can continue to be fostered in the workplace, it also needs to be cultivated at school.[2]

Australia has been at the forefront of thinking about the place of the creativity in young people's lives. The Melbourne Declaration on Educational Goals for Young Australians (2008) explicitly calls for all young Australians to become 'confident and creative individuals' who are:

'…creative, innovative and resourceful, and are able to solve problems in ways that draw upon a range of learning areas and disciplines.' (p.8)

The Australian Curriculum, Assessment and Reporting Authority (ACARA) explicitly requires schools to teach critical and creative thinking:

'Creative thinking involves students in learning to generate and apply new ideas in specific contexts, seeing existing situations in a new way, identifying alternative explanations, and seeing or making new links that generate a positive outcome.' (ACARA, 2013, p.66)

The Dusseldorp Forum promotes creative learning in schools with a clearly stated intention: 'We define creative learning as teaching that

encourages young people to use their imaginations and engage their natural curiosity, to see age-old problems in a new light, to experiment and test ideas, to apply mixed mediums and interdisciplinary approaches, to pursue their interests and strengths and to develop a life-long love of learning.' (http://dusseldorp.org.au/priorities/creative-learning/)

As part of its commitment to better understanding the impact of creative learning on young people and promoting a wider debate about the role of creativity, the Dusseldorp Forum has commissioned a rapid evidence review from the Centre for Real-World Learning at the University of Winchester.[3] In this rapid scan we describe the broad field of creative learning, suggest why it matters today and summarise the evidence for its impact on learners.

2. WHAT IS CREATIVE LEARNING?

It would seem reasonable to suppose that the development of creativity at school requires students to have opportunities for 'creative learning'. So what do we mean by this term?

In the previous section we saw the Dusseldorp Forum's definition of creative learning, which builds on thinking from UK researcher Julian Sefton-Green.[4] This kind of definition finds favour by many, including the UK's accountability body Ofsted. In a review of creative learning in schools Ofsted suggests that creative learning is characterised by:

- questioning and challenging
- making connections and seeing relationships
- envisaging what might be
- exploring ideas, keeping options open
- reflecting critically on ideas, actions and outcomes. (Ofsted, 2010)

Logically any definition of creative learning will itself be strongly related to definitions of creativity and the kinds of capabilities which creative people exhibit (e.g. perseverance, pro-social skills). This broader discussion is beyond the scope of our review in which we have inevitably had to summarise thinking.

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1 *An example of such an interest in creativity was Europe's Year of Creativity in 2009,* http://www.create2009.europa.eu/ *(accessed 13 January 2015)*

2 *In the UK Sir Ken Robinson created the conditions for a national strategic approach to creativity with his seminal report in 1999 - All Our Futures: Creativity, Culture and Education. Largely as a result of his advocacy a decade of investment in schools followed in England between 2002 and 2011 by Creative Partnerships,* http://www.creative-partnerships.com/ *(accessed 13 January 2015). One of the largest libraries of impact data from this and other similar creative programmes can be found at* http://www.creativitycultureeducation.org/research-reports *(accessed 13 January 2015).*

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3 http://winchester.ac.uk/realworldlearning *(accessed 13 January 2015)*

4 *See* http://dusseldorp.org.au/resource/creative-learning-2/ *(accessed 16 January 2015)*

Creativity

The study of creativity crosses many academic boundaries. This includes, Archaeology (e.g. the origins and evolution of creative behaviour); the Arts (e.g. creative processes, such as metaphorical thinking, flexibility and visualisation); Neuroscience (e.g. creativity networks in the brain[5]); Economics (e.g. employee productivity) and Education (e.g. assessing creativity).

Reiter-Palmon, Beghetto and Kaufman (2014) provide an interesting look at creativity through a business-psychology-education integrated lens. Through this lens it can be concluded that:

- Much of the heavy conceptual lifting around creativity has been done in the areas of psychology, education and business.
- Creativity can be conceived as an intrinsic end in itself (the consequence, product or outcome) and as a means to some other end (e.g. innovation, organisational change, health, happiness).
- In education, creativity 'occupies a murkier position' with it more likely viewed as an on-route indicator of a desired outcome than a valued outcome in its own right.
- Creativity often involves in context a 'combination of originality and task appropriateness'
- In business, creativity is often associated with the development of new ideas, along then with the implementation of those ideas towards organisational 'success'.

Overall, researchers and practitioners agree that creativity is a complex and multi-faceted phenomenon, which makes a universally accepted definition hard to come by (Harris & Ammermann, 2015; Treffinger et al, 2002).

When creativity is considered in its general sense, most researchers focus on one important aspect – 'divergent thinking' – the ability to generate many ideas from a range of perspectives without being limited by preconceived thinking. A popular method of measuring this aspect of individual creativity is known as the 'alternative uses task' (Guilford, 1967), where, typically one might be asked to think of as many unconventional uses of

5 *See Judith E. Glaser (Chairman, The Creating WE Institute) interview of Rex Jung (Assistant Professor, University of New Mexico, Department of Neurosurgery)* http://bit.ly/1XlJFe7 *(accessed 17 December 2014)*

a paper clip. But while divergent thinking – the capacity to innovate and come up with ideas is clearly important - it is only one aspect of the broad field known as creativity.

Four views of creativity

In helping us to understand the different dimensions of creativity, Anna Craft (2008) helpfully maps a range of views of creativity (see Figure 1). These range from creativity as an individualised phenomenon to creativity as a collective endeavour and make clear the tension which exists between creativity that is domain-specific as opposed to being something that is domain-free. In other words, there are at least four different ways of 'being creative' in a particular subject, more generally in life, as an individual act or in a group.
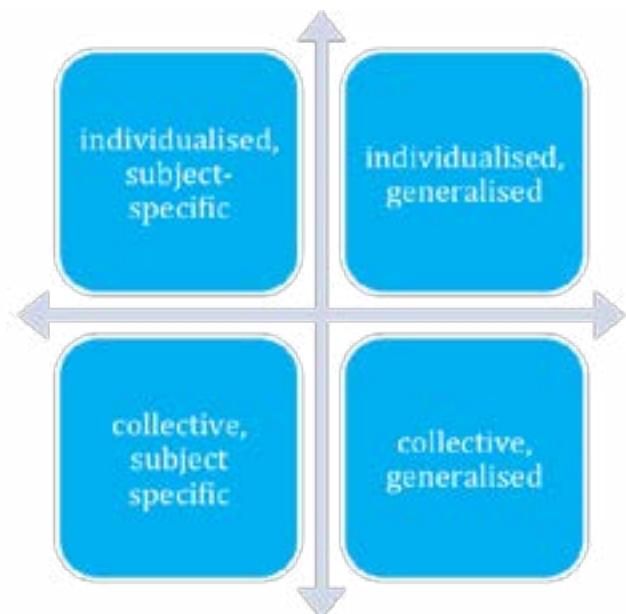

Figure 1 - Four views of Creativity (Craft, 2008)

One of the first and arguably most influential researchers to examine creativity from the individual perspective was JP Guilford. A psychologist, Guilford focused on habitual patterns of mind or traits and their associated behaviours to describe and account for different personalities.

In a comprehensive meta-analytical review of the creativity literature, Treffinger compared 120 definitions of creativity in papers exploring the 'traits', 'characteristics', and other personal 'attributes' which distinguished highly creative individuals from their peers (Treffinger et al, 2002). Treffinger clustered these many attributes into four broad categories:

1. generating ideas
2. digging deeper into ideas
3. openness and courage to explore ideas, and
4. listening to one's 'inner voice'.

While the work of Treffinger and Guildford is a helpful starting point, it is inevitably incomplete as manifestations of creativity are almost always the result of complex social collaboration.

An early authoritative view of creativity was Arthur Koestler's *The Act of Creation*, which takes a broad conception of creativity and emphasises its social dependencies. Koestler's general theory of human creativity highlighted the role of external influences on an individual's creative thought process. Citing the scientific 'discoveries' of Kepler, Kelvin, Newton, Pasteur, and Fleming, Koestler demonstrated the way all ideas develop through cross-fertilisation and recombination of existing components. Human beings do not, he suggests, ever create wholly original thinking.

Whether creativity or creative learning is subject-specific or more general is a particularly important issue in schools. For much of the last fifty years in many schools creativity has largely or exclusively been associated with the arts. But today the trend is towards a broader conception of creativity and creative learning in schools. There are some perfectly reasonable arguments for this situation including the intrinsic value of the arts, the potential for the developing certain cognitive skills through arts education and the potential for the arts as media for learning other subjects. These arguments are well summarised by Keith Sawyer (2011) who points out the limited evidence actually existing for the second and third of these assertions.

Mihalyi Csikszentmihalyi has made compelling arguments for the more general location of creativity. The key difference between creative people and their less creative peers he has suggested is the 'complexity' of their tendencies of thought and action. Those veering toward creativity 'tend to bring together the entire range of human possibilities within themselves' (Csikszentmihalyi, 1996 p.57).

Creativity, intelligence and thinking
In addition to considering the individual or social and specific or general contexts, there are two other dimensions of creativity that commonly feature in discussions of creative learning –its relationship to intelligence and its connection with thinking. Starting with the first of these creativity is related to, though not the same as, intelligence.

Guilford (1950) was among the first to cast doubt over the idea that intelligence tests could appropriately measure creativity. This marked a shift from the concept of creativity being an inherited trait of a genius to something that could be developed in us all and measured in the every day (Barbot, Bescaçon and Lubart, 2011).

Sternberg's concept of 'successful intelligence' (1996), for example, links the concepts of creativity, analysis and practical gumption to show what it is that successful people do to achieve their life goals. He sees creativity not only as the ability to come up with ideas but as one of three core aspects of intelligence along with analytical and practical capability. Sternberg reminds us that it is the use of these three aspects in combination that determines whether you are successful or not in the real world.

In both the UK and the USA there has recently been much made of the close affinity which there is between creativity and thinking skills (Trilling and Fadel, 2009; Ritchhart, 2011). Indeed for much of the last decade in England, secondary schools were invited specifically to develop Personal, Learning and Thinking Skills. Creative thinkers were those who '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.'[6]
One particular kind of thinking is problem-solving and this has recently gained in status as an activity by the adoption by the Programme for International Student Assessment (PISA) of a creative problem-solving test. PISA defines creative problem solving as:

'an individual's capacity to engage in cognitive processing to understand and resolve problem situations where a method of solution is not immediately obvious. It includes the willingness to engage with such situations in order to achieve one's potential as a constructive and reflective citizen.' (OECD, 2014, p. 30)

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6   *An archive version of this can be found at* http://webar-
chive.nationalarchives.gov.uk/20110223175304/http://curricu-
lum.qcda.gov.uk/uploads/PLTS_framework_tcm8-1811.pdf

Interestingly PISA is contemplating a collaborative problem solving framework (PISA, 2015) so extending the notion of creative problem solving as an individual to similar creative activity in a group. In Australia critical and creative thinking are linked together explicitly in ACARA's definition:

'Dispositions such as inquisitiveness, reasonableness, intellectual flexibility, open- and fair-mindedness, a readiness to try new ways of doing things and consider alternatives, and persistence both promote and are enhanced by critical and creative thinking.' (ACARA, p. 67)

Like Canada, Finland and England, Australia performed well on the 2012 PISA test of creative problem solving, although there were important cultural variations. So, for example 4% of Indigenous students were top performers compared to 18% of non-Indigenous students and 37% of Indigenous students were low performers compared to 15% of non-Indigenous students (Bortoli and Macaskill, 2014).

In this section we have been trying to understand what we mean by creative learning and by creativity. For without a sound definition we cannot establish:

• whether creative learning is valued
• what its outcomes are for learners.

Given the breadth of the field, we now turn attention to a working model of creative learning in action.

A working model of creative learning in action

Initially the result of work commissioned and published by the OECD, this work has been customised and further developed by Rooty Hill High School in Sydney. The original model (Lucas, Claxton and Spencer, 2013) offered a definition of creativity that focuses on five creative habits of mind, each with three sub-habits:

1. Inquisitive. Wondering and questioning - Exploring and investigating - Challenging assumptions
2. Persistent. Sticking with difficulty - Daring to be different - Tolerating uncertainty
3. Imaginative. Playing with possibilities- Making connections - Using intuition
4. Collaborative. Sharing the product - Giving and receiving feedback - Cooperating appropriately

5. Disciplined. Developing techniques - Reflecting critically - Crafting and improving.

Rooty Hill High School in Western Sydney has further developed this thinking to suggest specific patterns of thinking and activity that might best cultivate each of the fifteen sub-habits of a creative learner. Their creative learning is consequently geared towards these desired outcomes and is depicted in Figure 2 on page 6.

3. WHY CREATIVITY MATTERS

The importance of creativity is not a new idea. Here is one of our greatest psychologists, Lev Vygotsky, writing on the topic nearly a century ago:

'We should emphasize the particular importance of cultivating creativity in school-age children. The entire future of humanity will be attained through the creative imagination; orientation to the future, behaviour based on the future and derived from this future, is the most important function of the imagination.' (Vygotsky, 2004)

What is the broader case for creativity being important today? The evidence is strong.

It is economic. Most countries explicitly encourage their schools, colleges and universities to develop creativity. They believe that the possession of creativity in citizens will be a source of competitive advantage. Here is an example from Scotland of this kind of rationale (Education Scotland, 2013):

'Scotland needs to prepare its young people for life and work in an uncertain economic and social environment if they are to thrive in an era of increasingly rapid change. The need for a well-developed set of higher-order skills will be a key part of the toolkit they will need and the ability to think creatively will be one of the most important tools in that toolkit.' (Foreword).

A Southern Hemisphere example is the case of Hong Kong and Shanghai which are:

'reducing the emphasis on rote learning and increasing the emphasis on deep understanding, the ability to apply knowledge to solving new problems and the ability to think creatively.' (OECD, 2011 p83)

Creativity is also positively associated with entrepreneurial behaviour at the individual as well
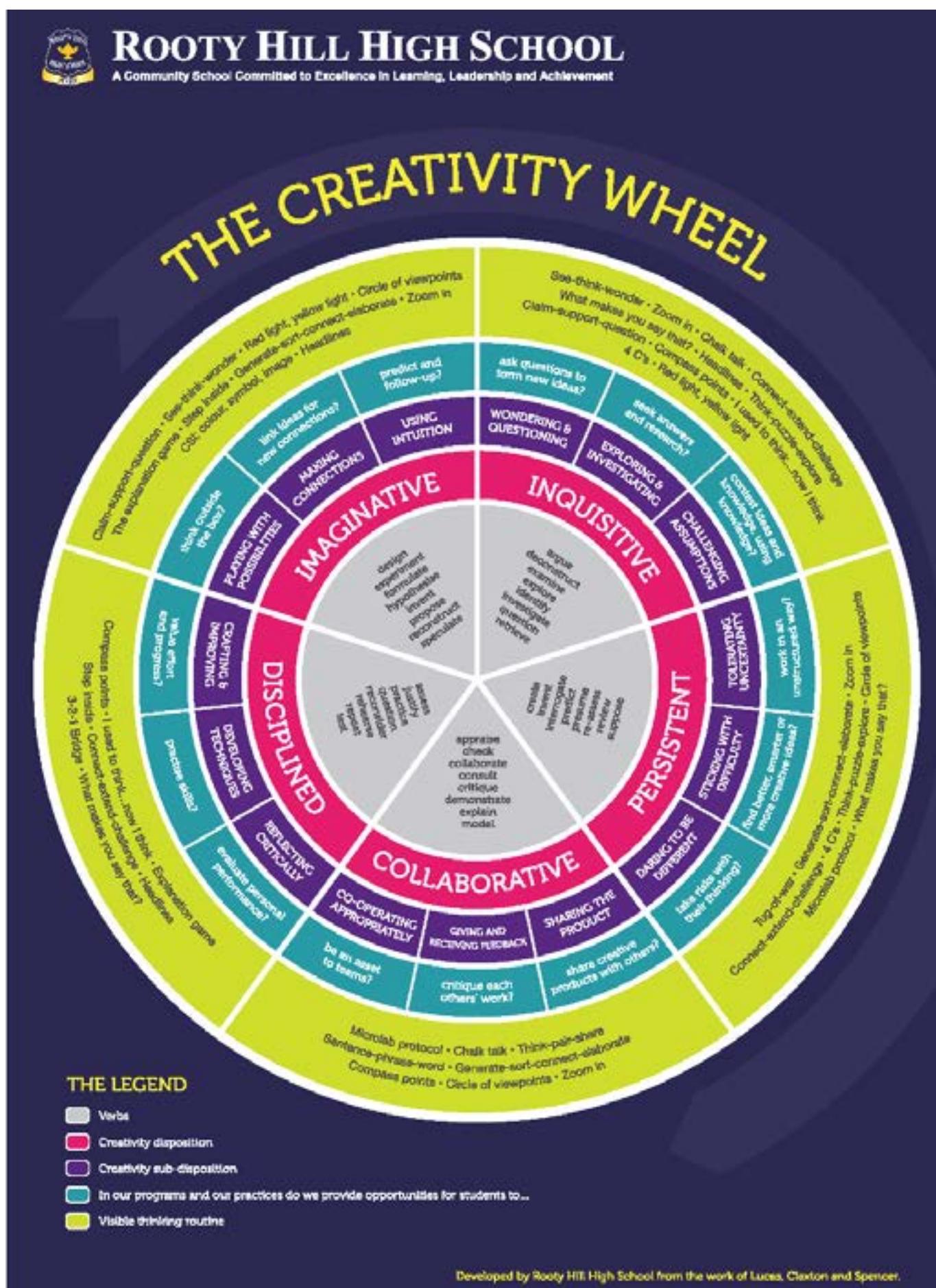
Figure 2 - Rooty Hill High School's Creativity Wheel

as the societal level (Amabile, 1996; Hamidi et al. 2008).

The argument is an education-competition one, too, with the recent introduction by PISA of the creative problem solving test, already discussed being the clearest empirical evidence of an international interest in an outcome of schooling where previously the focus was on literacy, numeracy and science.

Successful nations will want their school systems to feature highly in the league table of creativity. Calls to develop this capability from its citizens are also coming from outside education. Australia's former Treasury Secretary Dr Ken Henry landmark public lecture is an example.[7] In it, Henry argues that a more sophisticated understanding is required of the:

'extent to which individuals enjoy a set of capabilities that provides them the freedom to choose a life of value.' (Henry, 2014)

Part of the solution that Henry puts forward is the development of 'education pathways to knowledge; and science and innovation systems that support creativity'.

This relationship between the wealth of a nation and creativity is also not lost on Australia's neighbour, Hong Kong. Teaming up with the government's Home Affairs Bureau, the University of Hong Kong were commissioned to devise a framework for a Creativity Index (Home Affairs Bureau, 2004). 'Creativity', along with 'knowledge' and 'information' were singled out as different 'intangible assets that a city could capitalise on for its economic growth in the age of globalisation' (p.2).

There is a technological and speed-of-change argument, too. Here the synonym for creativity most often used is 'innovation'. A clear case along these lines is made for Australian schools by Kathryn Moyle (2010):
'A common theme in many countries' national policies is that innovative, knowledge-based economies driven by talent and creativity are the way to build sustainable societies in the future.'

Much of this is common sense - 'the world is changing fast and we need to be able to be creative and adapt accordingly.'

There is also an emotional argument which one of the best-regarded contemporary creativity researchers, Ken Robinson, leads us into:

'Descartes said, "I think therefore I am." As Robert Witkin pointed out, an equally powerful starting point might have been, "I feel therefore I am.' Feelings are a constant dimension of human consciousness.' (Robinson, 2011, p.183)

In case Robinson's line of thought is not immediately clear, let us explain. For he goes on to remind us that it is through feelings as well as through reasoning that human beings find their real creative power. Look back at the Creativity Wheel (Figure 2) and you can quickly see how within each of our five creative habits there is a feeling as well as a reasoning dimension. Robinson was once a powerful advocate for the arts (instead of other subjects). These days he argues for creativity in many domains to enable us to realise the full range of our feeling and thinking as creative individuals.

And finally there is an increasingly strong social argument for creativity. Primarily this draws from the increasingly sound connections we can make between creativity and wellbeing (Seligman and Csikszentmihalyi, 2000). From this literature we know that many of the kinds of creative habits of mind we advocate on page 6, correlate with higher levels of wellbeing.

4. THE BENEFITS OF CREATIVE LEARNING TO LEARNERS IN SCHOOLS

Thus far we have shown that we are dealing with a well-researched field (creativity), something that can be cultivated in schools (as creative learning) and which is internationally considered as being important (for a range of reasons).

In this final section we consider the strength of evidence as to the impact of creative learning on individual students:

- Do students who take part in creative learning become more creative?
- Do creative learning programmes help learners to learn better?

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7 *See ANU Policy Outlook 2014 keynote – Ken Henry: public policy resilience and the reform narrative* https://crawford.anu.edu.au/events/4510/anu-policy-outlook-2014-keynote-ken-henry-public-policy-resilience-and-reform-narrative *(accessed 24 September 2014)*

- Does creative learning increase students' attainment?
- Are there other beneficial outcomes?

Let's briefly examine each of these questions. Each begins with a blunt answer and continues with brief exemplification. Much of the evidence comes from the UK's Creative Partnerships programme. This is because it has arguably the most comprehensive and focused information on this topic and over time when it comes to schools.

Do students who take part in creative learning become more creative?

Curiously we don't really know.

It's difficult to find reliable research in this area because we can mean different things when we use the phrase creative learning. Neither do we yet have effective ways of measuring or tracking the development of such skills even if some evaluation and assessment methods might be helpful (Lucas and Claxton, 2008).

But while this may seem a surprisingly negative answer, in a very practical way it is easy to see how creative learning programmes are highly likely to help learners once you disaggregate creativity into the kinds of habits we described in Figure 2 on page 6. Interventions that specifically sought to develop children's capabilities in the area of, for example, seeing connections, very probably did so. But such local evaluation was beyond the scope of this evidence scan.

Do creative learning programmes help learners to learn better?

There is considerable indirect evidence to suggest that they do.

For we know that questioning, persisting, giving and receiving feedback, collaborating, practising and using imagination all in different ways form part of what might in general be referred to as metacognitive skills and are both linked to effective learning and positively associated with gains in achievement (Hattie, 2009). Such skills would include persistence/resilience, problem-solving, disciplined practice, reflective capability, questioning skills – for example – all of which are known to contribute positively to learning outcomes.

In a similar vein, a sample of 44 Creative Partnership schools in England were reviewed by Ofsted in 2010 and a range of desirable outcomes were noted:

'Almost all these schools were making effective use of creative approaches to learning. Most of the teachers felt confident in encouraging pupils to make connections across traditional boundaries, speculate constructively, maintain an open mind while exploring a wide range of options, and reflect critically on ideas and outcomes. This had a perceptible and positive impact on pupils' personal development, and on their preparation for life beyond school.' (Ofsted, 2010 p.4)

Does creative learning increase students' attainment?

There is some evidence to suggest that it does. The direct evidence is provided by studies summarised by John Hattie (Hattie, 2009) showing how programmes using creative thinking techniques enhance achievement in general (Higgins et al, 2005). A small-scale study involving 48 teachers of some elementary 800 pupils found significant gains in reading and mathematics (Schacter et al, 2005).

In evaluating the Creative Partnerships programme the National Foundation for Educational Research found that:

'There are positive messages for Creative Partnerships. While effect sizes are relatively small, the results of this study suggest that Creative Partnerships is contributing to improved levels of attainment. For example, young people who have attended Creative Partnerships activities made, on average, the equivalent of 2.5 grades better progress in GCSE than similar young people in other schools'. (NfER, 2008)

Are there other beneficial outcomes?

Yes. We can be clear that, in a range of ways, creative learning contributes to a range of positive outcomes. From their systematic review of literature, Jindal-Snape and colleagues (2013) found that conducive creative learning environments contribute to the following beneficial outcomes:

Student motivation and engagement improves:
There is some evidence to suggest that creative learning environments improve levels of student motivation and engagement. Jindal-Snape's and colleague's (2013) review found evidence

of this from studies with primary age students (use of interactive whiteboards creatively) and secondary age students (use of ICT through games-based approaches), as well as a small study with primary school teachers (enhanced involvement of students). In each study, along with improved motivation and engagement, other benefits were noted such as, improved concentration, reducing the generational gap or student enjoyment.

Students feel a sense of personal success:
Immersion in creative environments is reported to not only impact positively on academic achievement, but 19 case studies of creative learning from Scottish schools found that the main outcomes for students was a sense of personal success.

Increased levels of confidence:
The evidence base is lean, but Jindal-Snape and colleagues (2013) identified a number of small-scale studies showing reports of increased student confidence from practitioners working in Scottish schools and primary teachers in England, as well as from observations of children in the early years and primary school phases to tackle various teaching materials.

Enhanced resilience:
A close cousin to a learner's level of confidence is his or her resilience as a learner. Among these studies cited by Jindal-Snape and colleagues, of note is the experimental comparison of children in 'play-based' and 'taught' learning environments. This study by Whitebread and colleagues (2009) showed that children in the 'play-based' (creative) environment were significantly more likely to persevere with a task than those in a 'taught' environment. They were also prepared to spend longer on open tasks, while the 'taught' children spent more time on closed tasks.

Social and emotional development:

There is some evidence. For example, noted in the review by Jindal-Snape and colleagues (2013) is a 2007 study by Matthews. The study involved two classes of primary school age students from a London school undertaking a six-week creative arts intervention to assist their transition into secondary school. The study showed that students undertaking this intervention helped them become more articulate about their concerns, as well as more reflective and emotionally aware.

Jindal-Snape and colleagues (2013) conclude that very few studies explicitly look at the relationship between creativity in education and gender, age or socioeconomic status. We would add to this, also culturally and linguistically diverse student backgrounds.

Attendance improves according to evaluation of work in the UK:

'Participation in Creative Partnerships was shown to be associated with an educationally significant reduction in total absence rates in primary schools ….Total absence rates in schools that had been participating in Creative Partnerships for four years were almost one percentage point lower than in otherwise comparable schools with no history of involvement with Creative Partnerships.' (NfER, 2008)

Creative learning activities would seem to be able to engage parents in a number of useful ways:
Children often want to talk about their learning at home, parents feel that they understand more about what the school does, parental aspirations can be enhanced and parents may be tempted to take up cultural and creative activities themselves (Centre for Literacy in Primary Education, 2006).

Low SES backgrounds:
While far from an overt focus, mention is made in the OECD's Equity and Quality in Education: Supporting disadvantaged students and schools (2012) report of the use of creative activities as part of a continuum of support for improving low performing disadvantaged schools. In the OCED's Innovative Learning Environment project more than 30 systems were analysed. Consistent with some of the features for boosting creative learning in the next section, in some cases schools were organising learning time differently. In Greece, for example, primary and secondary schools were becoming 'all day' schools and the curriculum was being enriched with various kinds of creative activities, such as foreign language classes and sports.

5. HOW TO BOOST CREATIVE LEARNING?

Robyn Ewing (2010) points out that "there is a radical disconnection in many schools between learning and experience, and many children opt out." Calls for the development of learning environments conducive to creativity are dotted

throughout the literature. The good news is that, like any habit, creativity can be encouraged or as Sternberg (2012) also points out, it can be discouraged. Reaping the benefits then of creative learning is more likely to happen in some learning environments than others:

'One of the central blockers that challenge such a change in approach, however, are teacher beliefs and perceptions about their own creativity and how they can encourage creativity in their students (Hall, Thompson, & Hood, 2006).' (Ewing, 2010, p. 34)

An array of teacher behaviours has been identified from the research (Sawyer, 2011). These include helping students to resist the pressure to conform or an orientation of openness or allowing time for ideas to incubate. Collectively, these can encourage a culture of creativity.

More broadly, from his work in education, Sternberg (2012) states that three main things are needed to encourage creativity in learners:

1. opportunities to engage in it
2. encouragement when people avail themselves of these opportunities
3. rewards when people respond to such encouragement and think and behave creatively.

Another example is from Jindal-Snape's and colleagues (2013). They found that conducive creative learning environments for students take into account the:

• 'physical environment' (e.g. flexible use of space; using different areas within the classroom, outside the classroom and outside 'the school gates'; provision of a wide array of appropriate materials);
• 'teaching and learning environment' (e.g. this involved learners having some control over their learning; being supported to take risks; a flexible pace of learning; teachers developing good relationships with students); and
• 'role of partnerships beyond the school' (e.g. learners and learning that connect to, for example, the local business, sport and arts community).

Whatever the approach, researchers and practitioners agree that boosting creative learning requires a conscious focus across multiple spheres.

CONCLUSION

Nearly a century ago, Lev Vygotsky made the case for creativity and thus opened the door for developing this capability through creative learning. Today, the broader case for creativity is being made within and outside education. Creativity is being linked positively to individual, organisational, community and national economic prosperity.

In education, creative learning and the explicit fostering of this is associated with academic, social and emotional benefits for learners, as well as improved student attendance. And while it is clear that lines of argument and strength of evidence vary, collectively an undeniable narrative is emerging: creative learning is viewed as a critical literacy today and into the future for learners.

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