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INTRODUCTION

Jonnie Noakes | *Centre Director* & **Bill Lucas** | *Chair of Centre advisory committee*

Eton has a long tradition as a pioneering school dating back to its foundation by a teenage King Henry VI to provide a free education to poor scholars. As rapid changes sweep across the world in education over half a millennium later, Eton remains committed to uniting tradition with forward thinking and disciplined experimentation.

It is as yet unclear which changes will be game-changers. Will Artificial Intelligence disrupt education just as it will change the sphere of work, performing far better many of the cognitive tasks we currently teach and perhaps freeing us up to focus on teaching the things that only humans can do? Will the application of neuroscience and cognitive psychology impact deeply on teaching practice, for example in our understanding of motivation, emotional self-regulation and memory? Will learning be reorganised into cross-disciplinary themes rather than subject silos? Will assessment move towards proving mastery and away from traditional examinations? Is the centre of gravity shifting towards teaching vitally important capabilities such as creativity, emotional literacy, tenacity, curiosity and social intelligence?

In such a climate of diminishing permanence it's crucial that we are gathering up-to-date information from around the world about what is happening. We need to reflect on how that information is relevant to what we do in our schools and how we can make practical use of it. It is desirable that we are running our own research projects, instigating our own reforms, and sharing what we learn with others. The Tony Little Centre opened three years ago to do exactly these things. It is a laboratory for teaching and learning: for reflecting on what we do well, and asking what we could do better. While the 'we' starts with Eton, it explicitly engages the 'we' that is all teachers interested in innovation and research in learning. For public benefit is a priority.

"THE TONY LITTLE CENTRE HAS ESTABLISHED ITSELF AS A HIGHLY SIGNIFICANT REFERENCE POINT FOR DEVELOPING THINKING ACROSS INDEPENDENT SCHOOLS AND BEYOND."

DR WILLIAM RICHARDSON,
GENERAL SECRETARY, HMC

In the UK independent schools are increasingly being encouraged, we believe rightly so, to collaborate with state schools. Yet very little research has been done on what the potential benefits of such independent-state school partnerships (ISSPs) are. Last year Eton published an independent report (Lucas et al., 2017) that starts to explore ISSPs in more detail. The findings, which can frame an emerging taxonomy, are reproduced in the last section of the journal.

We are glad that we are not alone in this important work. An increasing number of schools in the UK and internationally are creating school-based centres for conducting research and applying the most valuable findings in the art, craft and science of learning. Communication between these centres is characterised by a spirit of open and mutually beneficial sharing. As Al McConville, Deputy Head Academic at Bedales School, has commented, "Eton's engagement with the wider educational community through CIRL is characteristic of its commitment not only to providing their own boys with the best possible education, but also to contributing to the wider social good through disseminating the findings of high quality research to other educational contexts. The Centre's activity reflects the College's openness to learning from others, as well as their desire to share their expertise as it deepens."

Within Eton the Centre seeks to promote a culture of creative innovation, disciplined enquiry and evidence-informed practice in teaching and learning. Innovating is not always easy. Most teachers feel simply too busy to try new things, and even the enthusiasm of early adopters does not always survive the inevitable frustrations of diverging from the tried and tested. We aim to cultivate a school-wide ethos of experimentation and calculated risk-taking as part of our ongoing professional development. We have many small trials going on simultaneously and iteratively. As well as experimenting with devices and platforms we work as education mentors for start-ups at Emerge Education, a leading London-based accelerator, trialling products and helping entrepreneurs to refine them. Recently we have been trialling blended learning for its impact on important employability and life skills such as time management, independence, teamwork and resilience. Early results are promising. Key to this sort of enquiry is our Researcher-in-Residence, Dr Iro Konstantinou, whose role includes facilitating research within the school by masters and by boys and publishing research findings both within and outside Eton. Dr Konstantinou has been centrally important in collaborating with academics and masters to develop this journal and has created a blog on evidence-informed practice to ensure we are part of the wider educational research dialogue.

Dr Konstantinou runs a series of courses for masters focused on teaching and learning. This is part of the Centre's broader role in designing and running professional development opportunities for masters. This year the Centre held a series of talks on 'The Science of Learning' and 'The Future of Learning' for masters, boys and partner schools, and we regularly convene small group meetings to discuss how to embed promising and interesting ideas about teaching and learning into schoolroom practice. The Centre also fosters the interest of pupils in what education is and how it might develop in future. Two pupils who were actively engaged with the activities of the school's Education Society, which engages with education experts and gives a platform for pupil voice, describe their experiences during the past academic year. The Researcher-in-Residence teaches groups of pupils the fundamentals of research in social science and facilitates the process whereby they conduct their own primary research, in preparation for university.

The world-wide movement to bridge the gap between theory and practice is particularly strong in the UK, where the work of the Education Endowment Foundation, the Centre for Evaluation and Monitoring at Durham, the Wellcome Trust, the UCL Institute of Education, and the Centre for Real-World Learning at Winchester among others are driving evidence-informed debate about what works in education. We aim to play an active part in this debate. A symposium we held at Eton two years ago for research-engaged schools has now grown into a 'network of networks' reaching hundreds of schools, many of whom already have well-established relationships with universities and research organisations.

Our Centre has worked closely with Research Schools International at Harvard to create 'usable knowledge'. During the last two years we have undertaken two small-scale pieces of research. In the first study we taught Growth Mindset to 130 C Block (Yr 12) pupils and found a statistically significant relationship between students' mindset scores and their prosocial attitude scores. We also found that students who took the course showed a statistically significant increase in prosocial attitudes; we did not find a change in a control group. The second research project looked at the relationships among boys' wellbeing and their academic achievement across the whole school. The research did not find any correlation between wellbeing and academic success, but the data

from the wellbeing surveys (answered by over 1,000 boys, with a fuller follow-up survey answered by just over 100 randomly-selected boys) showed some interesting results in wellbeing; namely, that boys' life satisfaction and positive emotions increase during the time they are at Eton in terms of four trends: social support; sense of autonomy; gratitude; and competence. These findings are particularly interesting because they run counter to trends nationally and internationally which generally show a decline in wellbeing in school years.

During the coming two years we will run an ambitious research project on 'character education', a broad term that refers to the skills, traits and dispositions which will form the foundation for the boys' individual conduct, moral values and personal strengths. Much of what we currently do in this area is tacit. The aim is to sharpen our awareness of our current practices, map them, inform them with up-to-date research into character education, and build a platform to share findings and encourage active dialogue among those who want to share interesting and excellent practice.

In this first issue of the *Eton Journal for Innovation and Research in Learning*, we focus on creativity, well-being, student voice and various aspects of research and evidence in schools. The journal is divided into three broader thematic sections: being a research-engaged school, teaching creatively and for creativity, and how to build effective independent-state school partnerships. We include pieces by established academics, thought-leaders, teachers, and pupils. We hope that this amalgam of voices can induce interdisciplinary discussions and act as one of the catalysts in research-engaged and innovative education practices. With this in mind, we have only slightly edited the various articles, trying to keep the authenticity of the contributors' voices as much as possible.

For published work and a video with an introduction to the work of the Tony Little Centre you can visit our website http://www.etoncollege.com/cirl. For research updates see our blog https://cirlresearch.com.

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"THE WORK OF THE CENTRE HAS BEEN FASCINATING AND INSPIRING, REMINDING US AS EDUCATORS OF HOW MUCH MORE WE CAN LEARN ABOUT THE NATURE OF LEARNING, AND MAKING AVAILABLE WIDER INSIGHTS INTO THE IMPLICATIONS OF ALL OF THIS FOR TEACHERS ACROSS ALL KINDS OF SCHOOLS"

GEOFF BARTON,
GENERAL SECRETARY, ASSOCIATION OF SCHOOL AND COLLEGE LEADERS

THE EDUCATION SOCIETY: FOSTERING DISCUSSION AND PROMOTING PUPIL VOICE

Harry Moross & Alexander Bricken | *Secretaries of the Society 2017-2018*

The Education Society was founded two years ago by a group of senior boys in collaboration with the Tony Little Centre. It provides a forum for boys to discuss topics relating to education with each other, with masters and with outside experts. The boys invite speakers to give talks on forward-thinking approaches to education, often from international perspectives, such as universities that teach interdisciplinary courses focused on complex real-world issues, the insights that neuroscience provides about how to learn, and the ways in which creativity can be taught. The Society promotes pupil voice by setting up fora and feeding their ideas into the Centre's strategic thinking about teaching and learning and into the deliberations of working parties, for example on the boys' use of IT and the school's reporting practices. Recently senior boys from the Society were invited to speak to the school's Academic Development Committee where they made proposals for developing the school's practices around giving feedback to masters, reporting, and university applications.

This academic year The Education Society has been busy with a wide variety of initiatives. Boys have been focused on cultivating the role of the society as a source of pupil voice within the school. Whilst this is beneficial to students, who now have the opportunity to be taken seriously in raising their issues, teachers and authority figures at Eton are now able to see the school from a different angle giving them a fuller perspective on how the school could improve for the future.

With the help of Mr. Noakes and Dr Konstantinou, as the Secretaries of the Society we were initially focused on the continuation and improvement of the teacher feedback survey that has now been circulated around the school.

We also established a network for communicating and building relationships with other schools across the UK, encouraging the founding of the St. Paul's Boys Education Society and sharing ideas with Sherborne School's Teaching and Learning forum.

As well as this, on the other side of the Education Society, we have had the privilege of hosting a wide variety of guests to talk on their work within the education world, drawing from a wealth of topics and ideas. For example, Brad Busch, psychologist and director of 'Inner Drive', spoke about 'The Science of Learning: what the research says about improving student memory, learning and retention'. On the topic of creative thinking, Bill Lucas, Professor of Learning, spoke about 'Creativity: what creative thinking is, why it matters, how it can be cultivated in schools and why we should try to measure its development in young people'. Ed Fidoe, leader of the 21 Trust and co-founder of School 21, spoke about a new university in the East End of London that will teach a single interdisciplinary course. Lucian Cosinschi, European Regional Manager for Minerva at KGI, spoke on their innovative pedagogical core-curriculum focused on analytical decision-making and problem solving, and their online learning platform the Active Learning Forum. These lectures give both boys and masters the chance to learn about different ways to improve learning capabilities, and about effective teaching methods based on new studies surrounding the modern day schoolroom while engaging students with what society has to offer.

We hope that the Education Society will continue to flourish and our legacy to be the establishment of a forum where boys have a real opportunity to shape their education alongside masters.

BEING A RESEARCH-ENGAGED SCHOOL

BEWARE THE SORCERER'S APPRENTICE:
WHY TEACHING AND LEARNING MUST BE A SCHOLARLY AND RESEARCH-INFORMED ENDEAVOUR

Gerry Czerniawski | *Professor of Education, University of East London*

The use of evidence, enquiry and evaluation lie at the very heart of what it means to be effective both as a teacher and teacher educator.

A report from the British Educational Research Association in conjunction with the Royal Society for the Encouragement of Arts, Manufacturers and Commerce (BERA/RSA, 2014) has highlighted the importance of 'research engagement' i.e. the involvement of teachers and educational leaders in carrying out research and 'research literacy' i.e. that teachers should be: familiar with a range of research methods, with the latest research findings and with the implications of this research for day-to-day practice, and for education policy and practice more broadly (BERA-RSA, 2014: 40).

As we consider the role that research can play in the professional learning and professional development of teachers it is worth remembering that the sorcerer's apprentice found himself in deep water through mimicking the actions of his master [sic] without the requisite skills, knowledge and attributes developed over time with rigour, scholarship and practice. Acknowledging these requisites and the challenges teachers face in becoming researchers I discuss, in this article, the relationship between research-based knowledge, scholarship and how both can and must inform the professional learning and practice of teachers and their learners.

Developing a researcherly 'habit of mind'

It is the starting point of this article that engaging in educational research not only contributes to the professional development of teachers, but to the body of knowledge of the profession and to teaching and learning in general. But what exactly do we mean by 'research' and how best can we develop researcherly dispositions?

Fully cognisant of the breadth, depth and diversity of educational research and well as the diversity of those that engage in it, the BERA-RSA Inquiry has taken a deliberately inclusive and wide-ranging definition. By research, the report's authors mean any deliberate investigation that is carried out with a view to learning more about a particular educational issue (BERA, 2014: 42). As educators, many of us engage with research in one way or another, formally and/or informally, when we plan and prepare our teaching, presentations, reports and in some cases, our publications. The professional reading we do includes almost any form of publication that is, hopefully, research informed (e.g. periodicals, journal articles, textbooks, policy documentation). One can identify this preparatory scholarly activity as 'research' albeit research with a small 'r' (Murray et al., 2014).

Akin to Boyer's (1990) notion of the 'scholarship of teaching', taken in isolation this type of research can inform (and hopefully enhance) personal and professional practice. But Cochran-Smith (2005) argues that educators need to do more than just critically read, understand and question the epistemological background of articles and reports. In addition to this scholarly disposition they need also to be capable of conducting research into their own practices and programmes:

"Taking our own professional work as educators as a research site and learning by systematically investigating our own practice and interpretive frameworks in ways that are critical, rigorous, and intended to generate both local knowledge and knowledge that is useful in more public spheres" (Cochran-Smith, 2005: 220).

Far from just being research consumers, teachers can generate new forms of knowledge – research with a capital 'R'. This form of research engagement and knowledge production has traditionally been inherently linked to the improvement of teachers' own practice (Stenhouse 1967; Elliot and Norris, 2011). But for this to happen, educators need to develop what Tack and Vanderlinde (2016) term their 'researcherly disposition' (ibid. 4). This disposition, they argue, consists of three interrelated dimensions.

1. An affective dimension – the extent to which an educator values his/her role as an educator-researcher.

2. A cognitive dimension – the educator's perceived ability to engage with research as both a consumer and producer of knowledge.

3. A behavioural dimension – the educator's tendency to engage in research activities as both a consumer and producer of knowledge.

However, developing this researcherly 'habit of mind' (Tack and Vanderlinde, 2016) can be challenging depending on our employment context. While schools in the United Kingdom are increasingly becoming research active, finding space and time to research can be a huge ask when many teachers view their primary role as teaching pupils. Many teachers in schools do not necessarily have Masters level qualifications and in many cases little or no research experience. These challenges can and should have significant implications for the commitment institutional senior leadership teams give, not just to the increasing role research plays within schools and colleges (in both the independent and state funded sectors) but to the dedicated professional development provision targeting the research (and teaching) potential of all their staff.

Moving closer to a research-rich environment

The BERA-RSA Inquiry (2014) report mentioned earlier has considered how research contributes to the development of professional practice, school practice and the outcomes for learners of all ages and abilities: The Inquiry makes the case for the development, across the UK, of self-improving education systems in which all teachers become research literate and many have frequent opportunities for engagement in research and enquiry. This requires that schools and colleges become research-rich environments in which to work. It also requires that teacher researchers and the wider research community work in partnership, rather than in separate and sometimes competing universes. Finally, it demands an end to the false dichotomy between HE and school-based approaches to initial teacher education [BERA-RSA, 2014: 1] The report advocates ten principles for a research-rich, self-improving education system.

1. Teachers share a common responsibility for the continuous development of their research literacy.

2. During the course of qualifying and throughout their careers, teachers have multiple opportunities to engage in research and enquiry, collaborating with colleagues in other schools and colleges and with members of the wider research community.

3. Commisioners of education research build teacher engagement into commissioning processes so that wherever possible teachers are active agents in research.

4. Producers of new research knowledge endeavour to make their research findings as freely available, accessible and usable as possible.

5. Research literacy has a prominent place in development programmes such that the development of research-rich school and college environments is seen as a key leadership responsibility.

6. Inspection frameworks explicitly recognise the importance of research literacy to teachers' professional identity and practice.

7. Every learner is entitled to learning that is informed by the latest relevant research.

8. Every teacher is entitled to work in a research-rich environment that supports the development of the research literacy and offers access to facilities and resources that support sustained engagement with and in research.

9. Policymakers of all persuasions – and those who seek to influence policy – encourage, and are responsive to, the findings of the educational research, both in policy formulation and implementation strategies.

10. There is a sustained and growing systematic capacity to support educational research at the level of the individual school or college, through local and regional networks, embedded in teachers' terms and conditions and across the wider research community based in universities and elsewhere.

[Adapted from: BERA 2014. Research and the Teaching Profession – Building the capacity for a self-improving education system. Final report of the BERA-RSA inquiry into the role of research in teacher education pp.24-25)]

After Dewey (2002) and drawing on work from the Netherlands, Willemse and Boei (2017) have created nine design principles they consider important in developing educators' communities of enquiry regardless of whether they work in schools, colleges or universities. These principles embrace all educators but particularly those who may have little or no experience of conducting research or supervising students' research:

Nine design principles for developing communities of enquiry

1. Research should be conducted in small groups of six to eight educators to ensure mutual collaboration and decision-making.

2. The subject of enquiry is communally chosen and derived from practice.

3. Frequent meetings (eg every four weeks) to take place with the community of enquiry.

4. Fixed dates of meetings that provide a clear exchange of commitment and expectations of the community.

5. Meetings to follow commonly defined stages of research (problem definition, literature research, research question formulation, instrument design, planning and gathering of data, analyses, sharing the results with others).

6. Each meeting to be organised around three themes 1) exploring existing research and exchanging prior knowledge; 2) work on the research project; 3) reflecting on learning experiences and the relationship between those experiences and supervising pre-service teachers' research.

7. In pairs and between meetings participants should reflect and engage with tasks to guarantee the continuation of the research.

8. Experienced teacher educator-researchers should participate as full members and as mentors of the community of enquiry.

9. After collaborative consideration and dialogue the results of the research are shared through dialogue, conference presentation and publications.

(ibid. 210-211)

Taking time to critically reflect on our professional practice

It is easy to forget that as teachers we are also professional learners. And yet taking time to critically reflect on our own professional practice feels like a luxury rather than a professional necessity. Creating that time and finding someone (e.g. a professional mentor; critical friend) who you trust and can sit down with to talk about your professional practice and needs can be one of the most effective and most enduring forms of professional learning. I hope that the following questions might be useful in preparation for such professional dialogue.

Reflection points

- What practices have you tended to adopt the most (in teaching, research, networking and writing)?

- To what extent are these practices effective?

- What might you learn from other colleagues and how best can you accommodate their practice into your own?

- Against what measurements or values do you examine your own practice?

- To what extent could you explore alternative values in critically evaluating, as well as celebrating your own practice?

- What opportunities are there in your own institution for career support and development?

- What opportunities exist within and outside your own institution to address your professional strengths and weaknesses?

- To what extent are you fully aware of the sources of funding available to you to develop your own professional learning?

- What professional networks exist (e.g. subject associations, trade-unions, university networks, learned societies/research associations) that could support your career development?

- To what extent could you benefit from subject and methodological knowledge development?

- To what extent would you find it beneficial to observe or be observed by colleagues in order to improve your own pedagogic practice?

Concluding thoughts

The rapid development of 'Research Leads' in many schools (in both the independent and state funded sectors) in England in recent years has been accompanied by debates over the extent to which all teachers in schools can and should be involved in research, the nature and value of 'experiential' and 'craft' knowledge and what is meant by 'research-informed' teaching (Bennett 2016; McAleavy, 2016). However, Gewirtz (2013) argues that the danger in talking in simple terms about research-informed teacher education is that this can reinforce a reductionist, techno-engineering model where teachers, uncritically, simply implement 'what works' rather than critically reflect on their practice, its impact and rationale.

All research involves the identification of a research problem or question. It also involves identifying the procedures for capturing data and documenting analysis of this data while critically reflecting on these processes. This commitment to research, in its broadest and most critical sense of the word, is a powerful tool for encouraging professional autonomy and continuing reflective practice. It is also an opportunity to offer something of tremendous value to colleagues, students and pupils within and outside our own institutions. The nurturing of teachers' scholarly and researcherly dispositions is, and must continue to be,

a prerequisite for authentic and enduring professional learning and professional development. It is also a prerequisite for future practice in teacher education that will support a new generation of teachers to go beyond 'what works' to engage in a genuine educational transformation of the system and its learners.

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BEING A RESEARCH-ENGAGED SCHOOL:
A MULTIFACETED APPROACH

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In our attempts to be a research-informed school, our approach is bottom up, led by teachers rather than responding to positions of authority, whether that is management teams, examining bodies, or inspection reports. To make this argument we draw from various individuals and their respective experiences: the Researcher-in-Residence and a History teacher at Eton College, the Researcher-in-Residence at Christ the King, a state sixth-form college in London, and a professor of education who has been researching the interactions and impact of evidence and research on teachers.

This article suggests that being research-engaged does not only entail conducting action research but also the need to be a reflective practitioner with the ability to understand and be able to act on pupil difficulties, which can be one of the most effective pedagogical attributes that empirical research on effective teaching has identified (Hattie, 2009). Making classroom based in-situ judgments is different from making judgments based on a conceptual understanding of education, and being able to identify problems and search for answers through interrogating and evaluating research can be an invaluable asset for teachers.

Being a research-engaged school also encompasses facilitating the processes for teachers to be self-improving practitioners: to be informed about research and scholarship in teaching, to engage in and with research and to be consumers of research, and to be equipped to conduct their own research (BERA-RSA, 2014). This drive to be self-reflective and base one's judgements on evidence is one which ideally should be embraced by new and experienced teachers alike. As Griffiths argues: 'experience is not enough on its own. To become excellent — that is, more than proficient — requires a career-long commitment to self-cultivation as teachers. Part of the reason that the commitment needs to be career-long is that teaching contexts are in a continual state of change, and teachers need to adapt through a process of self-cultivation.' (Griffiths, 2012:117).

For this to happen teachers need to be equipped with the motivation, capacity, confidence and opportunity to do so. If these criteria are met, there is a powerful other way in which the schools can achieve high academic results and potentially reduce the workload of the teachers. However, there are still some structural barriers in place for research to become the norm in schools.

For example, there still exists the underdeveloped model of the teacher-as-researcher (Hammersley, 1993), and the capacity for this position is yet to be robustly applied in schools. There is also the 'there is no time' narrative, often heard in school corridors and staff rooms, which will need to shift. Hargreaves (1996) advocated small scale research relevant to the national agenda but not commissioned or dictated by it, using the analogy of the medical profession where care for patients involves the need for evidence about diagnosis, prognosis, therapy and other health care issues. Perhaps then part of the learning teachers are trying to produce is based on problems facing the pupils rather than being dictated by the syllabus. This model can also allow for deliberations of a community of researchers and practitioners who share their respective expertise.

There has been a shift in the cultural practices which foster such collaborations and communities of practice. To name a few examples, there are the Research Schools Network, the Institute for Research in Schools, and the Institute for Effective Education. Research is becoming central to what schools strive to do. Increasingly schools appoint Research Leads in senior roles, they train teachers to become researchers, and they build centres to foster research initiatives. Another example of the need for such collaborations which foster research is an initiative which our Centre is an active member of: the Research in Schools Learning Community. Bearing in mind the various initiatives and potential around being a research-engaged school, below are some reflections on how this can be realised in practice.

Iro Konstantinou

I was appointed as the Researcher-in-Residence at the Tony Little Centre at the end of 2017. I was still finalising my PhD thesis and I was very much torn between staying in academia or accepting a role at a school and perhaps losing the momentum of writing papers, attending conferences, and being part of the active debates around research. I was also sceptical of the role research had in schools. In HE, academics complained about the fact they would soon be 'judged' on their teaching with the Teaching Excellence Framework (TEF). Was it now that schools would be 'judged 'on their research outputs? However, I soon realised that there was great potential to what could be achieved through conceptualising research in schools in broader terms. Admittedly a well-resourced school, such as Eton College, could offer great opportunities to engage in research, with a physical space which offered abundant opportunities for experimentation and innovation. What I also came to realise was the potential that lies in collaboration across schools and how this role allowed me to be part of a community of teachers and researchers in schools across the country.

There is a real need and a rightful place for research in schools. This has been happening, but there is potential for this to become the norm across schools which might still be trying to balance their priorities between producing their own research data and using research findings in the classroom in order to enhance pedagogical practices. I believe there need not be such a conundrum: any engagement with evidence-based pedagogy has the potential to result in more efficient practice. Auspiciously, teachers seem keen to engage with the process. There are several projects which are in progress at Eton, most of which are not only looking to utilise the most innovative of methods, but also to make teaching more efficient and effective and to ensure that pedagogies have the scope to develop both academic excellence and contribute to skills which are vital for 21st century students.[1]

Joanna Rainey

From a teacher's perspective, engaging in and with research is something that I have always seen as central to my job. From the first days of the PGCE to five years in, I am consistently aware of wanting and needing to do better for my students. This ranges from improving my techniques to engage students, knowing how to identify the problems and reach those who aren't engaged, measuring progress and feeling confident in how I assess it, and being secure in knowing what works and what doesn't – and why. As I am currently undertaking an MA in Education Management, it is this last question which has struck me most forcefully: how do we know whether what is happening in our classrooms is right; and if it is, why is it? A fellow student recently remarked that she knew academic grouping for younger years was detrimental because she had seen that mixed ability grouping worked in her school. But she couldn't explain why she was so convinced of this, or how she could prove it enough to change or continue her practice. The immediate dismissal

of research as being high-minded and dictatorial, removed from everyday reality on the frontlines of the classroom, is a perception that limits how teachers can engage successfully with research as both consumers and creators. Indeed, most teachers would not recognise any of the numerous research organisation mentioned in Nelson and O'Bierne's NFER study (2014), indicating a chasm between schools and academic research that is hampering both in achieving a common goal: improving schools for the students who study in them.

So why are we not doing enough of it at the moment? I wonder if there is a fear or superstition amongst teachers that research will only tell them something they already know (e.g. the foundations of good quality teaching and learning are subject knowledge, classroom management, well-structured lessons and effective assessment), and not provide more than the obvious. It is clear that whilst some research does this, it expands further to provide value in explaining what makes one type of assessment more effective than another, or what a structured lesson consists of, through comparative and large scale studies. On the other side of the argument, there is widespread expectation that research will be limited in scale, relevance, quality and ridden with ideological presuppositions, and essentially useless in helping teachers with concerns and problems for which they need immediate, and trustworthy, answers. Beyond these difficulties, getting teachers not just to read research but to undertake it themselves reveals further hurdles. Academic research has criticised school-produced research (e.g. the Action Research movement) as lacking in evidential basis due to the practical difficulties of organising control groups and the necessary focus on classroom based designs. When teachers are faced with the fear of undertaking research they cannot depend upon to provide wholly accurate results, the drive to continue is easily lost and explained away by lack of time and a mountain of other responsibilities.

Yet research comes in many forms. Just as the International Boy's School Coalitions annual Action Research programme values qualitative data (including observations, questionnaires, interviews and journals) to learn about students and their progress rather than demanding quantitative proof, it is clear that simply thinking about how and what you are teaching will improve your practice and your ability to engage with research. It is a double victory, as Saunders (2010) proves by concluding that engaging with research is likely to increase professional skills of enquiry and help teachers to avoid face-value interpretations. Furthermore, many of the research topics that teachers could engage with and in would be wide in their applicability. Therefore, the potential to create a community of engaged teachers, or a research 'ecosystem' as Hargreaves (1996) and Goldacre (2013) hoped for with their call for 'Knowledge Mobilisation', would mean that the diagnosis of problems in some schools might provide the solutions needed for others.

Sue Sing
Researcher-in-Residence | *Christ the King Sixth Form College*

At Christ the King Sixth Form College, the significance and relevance of using evidence-informed practices with regards to the development of teaching and learning became apparent following its lead involvement in an externally-funded cross-sector action research project. This saw state and independent school teachers researching together, in genuinely reciprocal ways, to better understand what makes the difference for achieving high grades at GCSE and A-level. Being able to experience first-hand what this learning looked like, and felt like, and having opportunities to reflect on this and consider implications for their own practice, was reported as incredibly beneficial and empowering in terms of practitioners' professional development. This unexpected outcome resulted in a significant shift in thinking at CTK, at senior leadership level, in terms of its provision and promotion of staff CPD opportunities: namely, this resulted in the introduction of CTK Professional Development Bursaries and the appointment of a Researcher-in-Residence to support and further develop research activities across the institution. In addition, most recently,

senior leadership groups at the college have become involved in using research-informed approaches to inform the development of its strategic practices.

With colleagues from various schools, we created the 'Research in Schools Learning Community' to try to attract like-willed people, based in schools, with responsibilities for leading and/or supporting the development of research in their institution. Given the growing movement around the role of research in schools, and schools being at a range of stages in terms of their 'research journey', it seemed timely and hopefully beneficial to establish a professional community within which we could create opportunities for learning with, and from, each other, and explore possibilities for collaboration. This group seeks to offer independent and state schools opportunities to develop their thinking through the sharing and exchange of knowledge, ideas and approaches. Through this collaborative mentality, our belief is we can support each other to strengthen what we do in our own schools and, in turn, help one another to further develop and embed an evidence-informed ethos and environment.

Tim Cain
Professor of Education | *Edge Hill University*

I recently gave a presentation at Eton College, addressing members of the Research in Schools Learning Community. My presentation on this day was based on data gathered from five research projects, mostly in Primary and Secondary schools; these projects involved interviews with around a hundred teachers and school leaders. The overarching research question that united all the projects was, 'How can educational research impact on teachers and teaching?'

Qualitative analysis showed that the interviewees believed that research could impact in three broad ways: to inform decision making, to extend teachers' mindsets, and to develop a school as an intelligent community. They also had two broad aims for research-informed practice: to improve outcomes for pupils, and to advance teachers' professionalism. In principle, each of the three beliefs is coherent and justifiable. Research can inform decision making, particularly outside the classroom, although not in the straightforward way that is sometimes claimed. By bringing evidence from research into discussions which include other forms of evidence, teachers and school leaders can make better choices among possible alternatives and can avoid making decisions which have previously been found wanting.

Research can also challenge 'teaching mindsets' – the conscious and subconscious mental frameworks that teachers apply to the many swift and intuitive decisions that they take whilst teaching. By challenging teachers' mindsets, research can prompt teachers to question their habitual practices, to employ deeper, more complex educational concepts and sometimes, to think about teaching and learning in new ways. Research can develop a school as an intelligent community because, by its nature, research encourages questioning, discussion and critique. Indeed research proceeds, at least in part, by principled attempts to disprove previous research. Some schools provide the means for staff to discuss research: they encourage individuals and groups to undertake action research projects; they instigate research reading groups; they form research partnerships with universities and other organisations and they organise regular events such as annual research conferences, where staff can discuss their own research and published research.

It is important for schools to recognise the multiple ways in which research can inform practice. As Nicholson-Goodman & Garman (2007) found, if school leaders focus entirely on the ability of research to inform decision making at the whole-school level, they can be drawn into using research to 'wield power' rather than to encourage debate. To avoid this trap, school leaders can bear in mind the potential of research to extend teachers' mindsets and to develop the school as an intelligent community.

(Professor Tim Cain's book *Research informed schools: Why? What? How?* will be published by Routledge in early 2019).

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RANKING PUPILS AND MOTIVATION:
TEACHER AND STUDENT PERSPECTIVES

John Greenwood | *Teacher of Russian, Eton College*

Competition exists in many guises in our day-to-day lives and was once a key feature of the education system in England, but with the shift to a more pupil-centred approach over the last forty years, what Chitty (2014) refers to as 'healthy competition' in the academic side of school life has become rather less commonplace (Galloway et al., 2004). Consequently, the suggestion that pupils be ranked based on their performance in internal school examinations for each subject does seem to go against the grain somewhat. The very mention of a school that still engages in such a practice prompts some teachers to suck air sharply through their clenched teeth. Nevertheless, this is a process that is still carried out in some of the country's top-attaining schools.

When colleagues voice an opinion on the way in which pupils are ranked at Eton, both sides of the argument are dominated by the question of pupil motivation and how best to secure it. It also strikes me as odd that we are so willing to label an internal examination result as a 'failure', when we know that the boys will ultimately leave the school with a clutch of the very best grades, and for that reason, I have been keen to establish exactly how boys perceive their 'successes' and 'failures', not least because of the impact this can have on motivation.

There can be little doubt that the system as it stands does not motivate everybody, but the statement by Galloway et al., (2004) still holds true: '...there is no consensus about the nature of motivation, nor even about the most appropriate way to analyse it.' With that in mind, no one system will motivate every pupil. The more pressing concern, therefore, is probably the idea that the current system not only fails to motivate, but actively demotivates a significant number of learners.

The above reflections pose some questions on what we would consider to be the consequences of the academic competition we seek to foster: do we breed arrogance and a smug sense of security in some boys, while boys at the bottom languish in a pit of low self-esteem? All of these ideas have been floated to me at some point or other by colleagues, but are any rooted in anything more than what Bruner (1999) would dismiss as 'folk pedagogy'?

TEACHERS SEEM TO BE WELL AWARE OF THE POLARISED EFFECTS OF OUR RANKING OF THE PUPILS IN THE SCHOOL.

Methodology

In order to tackle the three research questions, which I discuss below, this research considers three main sources of evidence. The first source is the numerical data relating to pupils' examination performance and their relative numerical ranks. The aim of the collection of this data is simply to establish that those using rank position to identify performance may easily be misled; a rank may or may not accurately reflect individual academic performance or progress. The second is the responses to surveys completed by pupils and by teachers that give a personal perspective on the process whereby pupils are ranked. The survey generates both quantitative data, sometimes in the form of a Likert scale, offering a more detailed breakdown of responses to a fundamentally closed question (Bowling, 1997; Burns & Grove, 1997), sometimes in the form of ranked-order questions in order to show a priority preference for a series of valid responses, to more open-ended opportunities to give additional detail in order to qualify answers. The third is data generated by two focus- group sessions conducted with pupils after the data from the surveys was studied, in order to follow up on points of interest or points that the statistical data had shown inconclusively.

Analysis of data and responses to the research questions
What do pupils perceive to be the effects of ranking by attainment on their motivation?

A large number of pupils believe that their rank is a legitimate, useful marker of their own performance, even in the face of evidence that they have very little agency over their own achievement if this is how they measure it. Some of the pupils, particularly those who consider themselves to be amongst the higher-achieving pupils, feel that the system helps to boost their motivation, and some even believe that it is an essential hallmark of the school's education in character and resilience. Those who consider themselves to sit at the opposite end of the academic spectrum, however, are not motivated by this system and, in many cases, there is evidence of demotivation, a reduction in self-esteem and there is a good deal of research that indicates the negative consequences of this.

THIS HAS BEEN A USEFUL OPPORTUNITY TO DISCUSS WITH PUPILS AND THEIR TEACHERS A SYSTEM WITHIN THE SCHOOL THAT WE SEEM TO APPLY BLINDLY, SIMPLY BECAUSE IT IS SOMETHING THAT HAS ALWAYS BEEN DONE.

What do teachers perceive to be the effects of ranking by attainment on pupil motivation?

Teachers seem to be well aware of the polarised effects of our ranking of the pupils in the school. While almost all of the teachers acknowledge that there is sometimes a motivational effect at the top end of the attainment spectrum, there are some real issues relating to demotivation and low self-esteem at the bottom end, particularly in cases where boys feel that they have no control over what they perceive to be a valid performance marker. Moreover, the teachers often have a sense of the "bigger picture" and argue that we are senselessly lowering self-esteem in boys who have already been selected by attainment, many of whom will sail through the public examinations.

Do views on ranking by attainment in pupils differ depending on year group / perception of prior attainment and, if so, how?

It seems clear that the attitude of F Block (Y9) towards the value of their rank stands in contrast to the attitude of other year groups higher up in the school. This would perhaps seem to suggest that one's attitude toward work and motivation can be changed in a fairly short time-frame because of the environment. Although the school would like to believe that we encourage the boys to take on a growth-mindset approach to learning, this is a system that appears to be at odds with that.

This has been a useful opportunity to discuss with pupils and their teachers a system within the school that we seem to apply blindly, simply because it is something that has always been done. Consequently, I intend to present my findings at the school's Centre for Innovation and Research in Learning with a view to promoting a reformed system. This will present an opportunity to discuss with interested parties whether their views may have changed in light of the evidence presented. (extract from a longer piece of work submitted for assessment to the University of Oxford as part of an MSc in Learning and Teaching).

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COLLABORATIVE INQUIRY INVOLVING STUDENTS:
METHODS AND APPLICATIONS

Iro Konstantinou | *Researcher-in-Residence, Eton College*

Kincheloe and Steinberg (1998:2) promote the idea that 'education should help one make sense of the world. At the same time, it should help students make sense of themselves as 'players' in the world'. They argue that, with this in mind, educational institutions should embrace the pedagogical assertion that good education prepares students as researchers who can read the world so that they can both understand it and change it. Thus, 'students as researchers gain new ways of knowing and producing knowledge that challenge the common-sense views of reality' (ibid.: 2). Following this educational paradigm, 'Instead of memorizing unexamined, teacher-delivered data, students […] engage in the exploration of narratives (the grand stories) that shape their lives, devise (after rigorous study) revisionist interpretations of social and educational phenomena, and analyse canonized information within the frameworks of new contexts' (ibid.: 4). Similarly, Bragg and Fielding (2005:105) make the case for collaborative enquiry within schools as a democratising process, which involves sharing and distributing leadership and encouraging all members of the school to be active 'enquirers'. This, they suggest, should involve students; for 'without the involvement of the students it is not possible to enquire effectively either into the learning and teaching processes or into the school itself' (ibid.). This, therefore, is an argument of autonomy and agency as much as one of providing the methodological tools for conducting such inquiry.

With these theoretical underpinnings in mind, we decided to offer an optional course for students in their penultimate year at Eton. The course allowed students to explore their own academic interests, while they were guided throughout the process. Eight students signed up to the course and during the Summer term, they learned how to refine their research questions, how to conduct interviews, design surveys, analyse data and suggest interventions on a school-wide level. Below the students describe in their own words their motivations and experiences engaging with the Research Option.

Freddie zu Wied

I was very curious of the emotional disposition of boys admitted to the school and a survey-based investigation seemed the best way of exploring this. I hoped to make the investigation as objective as possible. Having looked into various possibilities, it seemed that the RQ Test from *Unselfie: Why Empathetic Kids Succeed in Our All-About-Me World* by Michele Borba, Ed. D. suited the investigation best. It gave me the option to explore a range of variables, but I decided to focus on optimism and empathy. Collecting data from boys aged 13-15 (F to E Block) from two school houses, totalling around 40 boys, gives a varied and collective view of this age group at Eton College. While the school is home to an enormous variety of character-types, it is also selective, with the process for admittance starting at 11-12 years old. I am interested into how this may affect the emotional orientation of the boys who are now at the school. I am still in the process of collecting data, but I am very curious to see how everyone will respond to the survey.

Mayowa Ayanbadejo

My research project is on the topic of consumption habits and their potential correlation with an education in economics. Economics and the flow of money through consumerism plays a key role in everyday life whether that be on a small scale – the purchase of a chocolate bar – or on a nationwide scale. Often depicted through predictable and logical curves and analysis, economics is heavily based upon the rationality of consumers and producers – which is known not to be true. Consequently, to examine the impact of a knowledge of economic theory upon irrational decision making, I planned a qualitative interview of 10 boys with the question – Does a knowledge of market failures affect consumers consumption habits, and if so to what extent? Coming into the project at the start of term I had no prior knowledge or skill in choosing and conducting my own research. But, over the last 4 weeks through this research option I have gained an insight in to the strategy of research. I have had a lot of guidance and helpful expertise throughout this process which has helped me to co-ordinate this project to attain meaningful results. This option has also allowed me to delve deeper into extra-curricular topics and questions which have been prevalent upon my mind. I have enjoyed this investigation and it has instilled in me a drive to undertake more future ventures.

Max Shakespeare

I dropped Chinese due to my frustration about my lack of progress and how impossible fluency seemed. I also went on a Spanish immersion programme one summer and the amount I improved in a week completely dwarfed my rate of progress within a school setting. These inspired me to undertake a project to find out what made the language learning experience so different and so much less effective in the classroom than in an immersion setting. I am interviewing a number of students who have become fluent in another language after birth and have experienced language teaching at school to highlight the limitations of teaching in the British education system. I am planning on presenting my results to the Head of Modern Languages in order to draw his attention as to what creates the best language learning atmosphere and how we, at Eton, can get as close to that as possible.

Arthur Chan

The Research Option was an engaging series of classes that allowed all of us to appreciate the nature of scientific research, as well as providing a platform for us to explore some of our own questions that we had in fields ranging from sociology to economics. For my project, I elected to investigate the effects of perceived popularity within the student body at Eton. This was a subject I felt would resonate with many of my other peers at school, and was also grounded in social psychology - one of my personal interests. A particular focus was placed on how popularity influenced day-to-day social interactions with other boys, such as self-confidence and conversational skills. I used Google Forms to create a series of twelve multiple choice questions and sent it out to all boys in the college. The data I received back provided some fascinating insights into the nature of popularity in a secondary school environment, which I aim to write up in a short report.

Alec Deakin

My project aims to find a correlation between sport and mental health; primarily whether an increased level of sport and exercise can positively impact mental wellness. I chose this topic because of its prominence in current issues regarding mental health issues, where it is found that as little as ten minute of exercise a day can improve sleep quality, reduce anxiety, depression and relieve other problems. This topic also has a heavy significance at Eton where some boys will play over ten hours of sport a week but some will do none at all. I targeted my questionnaire on boys in my house where I found that most boys believe that sport is an essential part to their happiness and if they were to stop their exercise regimes then their mental health would worsen. I plan to expand my project outside of the house, and possibly link it into the future exercise and nutrition research project next Michaelmas half. I intend to publish my data to the Director of Sport so that both he and others can further enhance their understanding of the significance of sport on boys' mental wellbeing at the school, coming from boys' perspectives.

Tobias Robinson, Louis Capstick, Nathan Swindler

The rationale behind the sleep project was predominantly to shed light on the sleep deprivation crisis that we had experienced anecdotally in our daily lives as students at Eton College. After 3 years of hearing "I'm so tired" or "I was up till 1 AM last night" as the default conversation starter, we decided to see if any hard data existed to correlate with our own personal experiences of sleep deprivation in the school community; the creation of the Health and Wellbeing Advisory Board (WAB) provided a perfect vehicle to pursue this goal. The project's development was slow at first, but with the help of the Tony Little Centre and the guidance of Dr Konstantinou in particular, we persevered and built a functioning questionnaire. After a successful pilot survey in our boarding house at school and some subsequent tweaking of the structure and questions, we opened the survey to the whole school, and were met with fascinating results. With more than 760 respondents we were able to get a clear picture of the sleeping habits of Etonians and understand the barriers to healthy sleeping habits. The broader scope of the project is to raise awareness of how sleep can affect not only one's levels of tiredness but also impact negatively on academic and sporting performance, reduce motivation and be a detrimental factor in the overall wellbeing of adolescents. We aim to distribute the findings within the WAB but also across the College.

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DEVELOPING GREAT TEACHING: LESSONS FROM THE INTERNATIONAL REVIEWS INTO EFFECTIVE PROFESSIONAL DEVELOPMENT

Philippa Cordingley | *Chief Executive of CUREE*

In 2015, for the first time it became possible to identify and analyse the evidence emerging from a significant number of systematic and technical reviews of evidence about continuing professional development and learning (CPDL) that correlates with success not just for teachers but also for their students. Systematic reviews of mixed methods research began to emerge in the earliest years of the 21st century although initially there were doubts about the feasibility of tracing connections between continuing professional development (CPD), the key focus at that time, and student learning. But the classroom teachers appointed as advisers to a systematic review carried out by the Centre for the Use of Research and Evidence in Education (CUREE) using the Evidence for Policy and Practice (EPPI) Centre methodology were adamant that teasing out such links was key to the credibility and usability of resulting reviews. By contrast, academic advisers doubted the research evidence about CPD would be capable of doing this.

In the event, both were right because studies of CPD per se almost exclusively focussed on evidence about effects on teachers. But studies of substantive development of teachers' practices in specific subject or phase contexts that collected rigorous evidence about processes as well as impacts did provide the evidence the review authors (Cordingley et al., 2003) and its teacher advisers were seeking. In response to this initial review other reviews with bigger budgets and wider remits followed, including the series of seminal Best Evidence Syntheses commissioned by the New Zealand government (Tiemperley et al., 2006; Tiemperley et al., 2007). So by 2014-15 there was enough evidence from reviews to merit a meta analysis of meta analyses in order to create an authoritative overview. The result was Developing Great Teaching, a report commissioned by the Teacher Development Trust (Cordingley et al., 2015). This paper summarises the key findings emerging from that meta review carried out by CUREE with support from professors Steve Higgins and Rob Coe from the University of Durham and from professor Toby Greaney from the University College London Institute of Education, and considers its application in schools, classrooms and staffrooms.

Unsurprisingly, given the evidence about the complexity of student learning, the review starts by highlighting the fact that effective CPDL that is strongly associated with significant acceleration in student success involves a mix of sustained, carefully aligned, iterative, evidence-rich activities organised around aspirations for students. The report goes on to explore these activities and the connections between them in depth and the key elements are summarised here. But before doing so, I want to emphasise the importance of both aligning CPD activities with each other and with participating teachers' aspirations for learners.

A number of those who have sought to apply and/or replicate these findings have treated the core characteristics and activities as a recipe which can be used in multiple different contexts. In doing so, they risk overlooking the foundational proposition about alignment and focus. These twin concepts, a focus on aspirations for what specific students' learning will look like if teachers' own substantive development is successful and on careful alignment of activities and goals, argue against treating any approach to CPDL as a recipe. Instead, there is the need for creating a clear golden thread to shape CPDL; one that works back from an analysis on high aspirations for students and evidence about the best that is possible, through a series of interactive, micro experiments and in-depth observations of the learning process that connect those ambitious starting points with evidence about teachers' and students' aspirations.

This meta-analysis highlighted important information about what doesn't work. In particular, it suggests strongly that generic pedagogic CPD does not work unless teachers are given opportunities to contextualise what is being learned for particular subject contexts and for particular groups of students with shared learning interests, concerns or challenges.

FIRST, PROFESSIONAL LEARNING CONVERSATIONS NEED TO BE ORGANISED AROUND HOW STUDENTS RESPOND TO LEARNING; TALKING ABOUT TEACHING ALONE DOES NOT MAKE A DIFFERENCE.

So what practical conclusions were reached?

First, there is the mix of opportunities to work with colleagues with specialist expertise. Teachers engaged in pushing forward the boundaries of their professional understanding, knowledge and or practice need opportunities to listen to, watch and or pick the brains of colleagues with deep knowledge of the CPD goals and expertise in supporting CPDL. This means facilitators well placed to enable the development of leading practices, challenge orthodoxies and help teachers relate new ideas to current understandings in ways that help participants not just to grasp that X or Y can lead to deeper learning and engagement in a range of contexts, but also understand how and why these processes do and don't work in different contexts. They need, in other words, the chance to work with colleagues who can help them develop their own practical theories so that they can adapt new approaches to their own students and contexts on an informed basis.

However, teachers need such specialist support in relatively small doses in comparison to the opportunity to work collaboratively with peers. What they need in rather more extensive and sustained ways is the opportunity to try out new ideas and analyse them and their implications in partnership with peers who are taking similar risks. Remarkably professional learning conversations do not correlate with success for students – unless they are focussed on two things. First, they need to be organised around evidence about how their students are responding to their learning; talking about teaching alone does not make a difference. The conversations need also to probe the resulting student learning. But professional learning conversations also need to be focused on what happens when teachers challenge the status quo in order to provide fresh insights into how students experience learning activities and their relationship with teachers' intentions and routines. Teachers have to internalise and routinise so much by way of practice and knowledge in order to focus their attention on the dynamic interactions with and between students in front of them that it is difficult to retain deep self-awareness. Opportunities for professional learning mean changing those routines to enable teachers to bring to the surface the knowledge, ideas and assumptions that shape their actions subconsciously, so they can review and refine them in the context of new information. This is uncomfortable, sometimes painful work that calls for deep professional trust. Reciprocal vulnerability between teachers who both risk looking silly in the early stages of new teaching attempts have the potential to accelerate trust building through the process of providing practical support and help to each other.

A positive, concluding point I'd like to make is that embedding engagement with evidence at every stage is crucial, alongside evidence from wider research and best practice, and just as importantly, evidence from one's own students, classrooms and disciplines. This suggest strongly that CPDL facilitators can use the windows into students' learning to make evidence-based adjustments to the support they are offering; a multi layered approach to practising what we preach!

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TEACHING CREATIVELY AND FOR CREATIVITY

CREATIVITY AND CREATIVE THINKING IN SCHOOLS:
AN OVERVIEW

Bill Lucas & Ellen Spencer | *Centre for Real-World Learning, University of Winchester*

Creative Thinking is what you do when you are being creative and creativity is the outcome of this. Creative activity is that which is purposeful, generates something which is to some degree original and of value. Almost always creative thinking is a social activity and almost always it takes place in response to an issue or problem facing an individual or group. Creativity is a well-researched concept and one increasingly attracting attention in national curricula across the world.

A brief history lesson
The study of creativity is some seventy years old. Most researchers trace its beginnings to the work of Joy Paul Guilford in the middle of the last century (1950). Guilford suggested that there are two kinds of thinking: convergent (coming up with one good idea) and divergent (generating multiple solutions). Building on this line of thought Ellis Paul Torrance (1970) developed four sub-categories – fluency, flexibility, originality and elaboration. Each of these might be applied in our example as an indication of the degree of Creative Thinking being employed.

More recently Robert Sternberg (1996) has argued that creativity is three-dimensional. It requires synthesising (the ability to see problems in new ways and escape from conventional thinking); analysing (being able to recognise which ideas are worth pursing and which are not); and contextualising (having the skills in different settings to persuade others of the value of any specific idea).

Of course creative thinking is both a solo and a collective activity, most often having a social component. It can be viewed as domain-specific (being creative in a scientific context, for example) or domain-free (being creative in any situation). Anna Craft reminds us that while only a few may aspire to be an exceptional genius, all of us can show a more ordinary form of creative thinking, that she termed 'little c creativity' (2001).

Donald Treffinger (2002) found 120 definitions of creativity and helpfully grouped them into four broad categories – generating ideas, digging deeper into ideas, openness and courage to explore ideas and listening to one's inner voice.

Global interest in creativity
There is growing interest in the importance of creativity in society. Organizations and societies increasingly depend on innovation and knowledge creation to address emerging challenges (OECD, 2010). Importantly creativity is a universal and democratic phenomenon with everyone to a greater or lesser degree having the potential to be creative (Lucas, 2016).

The World Economic Forum (*The Future of Jobs Report, 2016*) listed complex problem-solving, creative thinking and creativity as the top three skills which will be needed in 2020. In the UK the Confederation of British Industry has argued for the importance of curiosity and creativity (CBI, 2012). Martin Seligman and Mihalyi Csikszentmihalyi (2000) make a powerful argument for the positive links between creativity and well-being. Indeed there is a general consensus among psychologists, economists and educators alike that creative thinking can also promote personality development, academic achievement, and future career success (Long and Plucker, 2015, Heckman & Kautz, 2012).

In 2011 we were commissioned by Creativity, Culture and Education to produce a synthesis of existing research (Spencer, Lucas, & Claxton, 2012) and develop a definition of creativity which might be robust enough but also practically useful in schools, Figure 1.

Figure 1 – The Centre for Real-World Learning's Five Dimensional Model of Creativity
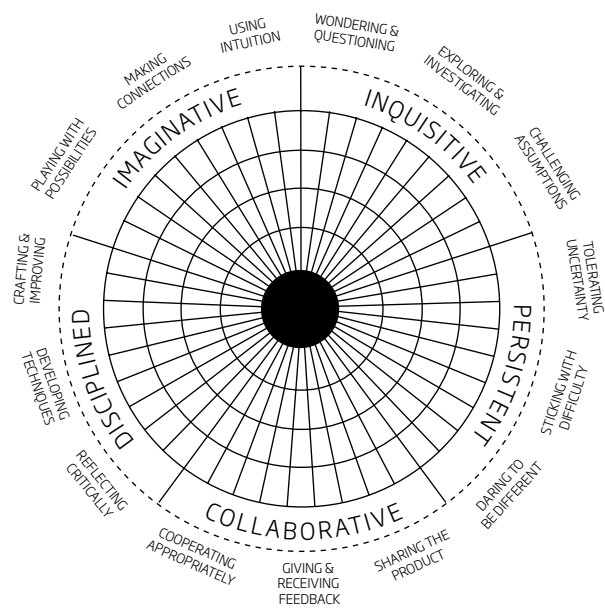
Published by the OECD (Lucas, Claxton, & Spencer, 2013) this five dimensional model frames creative thinking as a set of five creative habits of mind:

Inquisitive – Creative individuals are good at uncovering and pursing interesting and worthwhile questions both in a specific context and more generally. Not simply being curious, creative individuals pose concrete questions about things to help them understand, and develop new ideas. Questioning things alone does not make a creative thinker. Creative individuals act out their curiosity through exploration and follow up on their questions by actively going out, seeking, and finding out more. It's important to maintain a degree of appropriate skepticism, not taking things at face value without critical examination.

Collaborative – In today's world complex challenges require creative collaboration. Creative individuals recognize the social dimension of the creative process. Creative outputs matter, whether they are ideas or things creating impact beyond their creator. Creative thinkers want to contribute to the ideas of others, and to hear how one's own ideas might be improved. The creative individual co-operates with others taking into account the nature of the group, the kind of problem and the stage at which the group has reached.

Imaginative – At the heart of creative thinking is the ability to come up with imaginative solutions and possibilities. Developing an idea involves manipulating it, trying it out, and improving it. Seeing new links between ideas is an important aspect of the synthesizing process of creative thinking. The use of intuition allows individuals to make new connections tacitly that would not necessarily materialize given analytical thinking alone.

Persistent – Creative individuals do not give up easily. Persistence in the form of tenacity is important, enabling an individual to get beyond familiar ideas and come up with new ones. Creative thinking demands a certain level of self-confidence as a pre-requisite for sensible risk-taking. Being able to tolerate uncertainty is important when actions or even goals are not fully set out.

Disciplined – Creative Thinking, like any 'subject' requires knowledge and skill in crafting and shaping the creative product or process. Creative thinkers practice a range of conceptual and practical skills in order to improve. Evaluation is the way in which progress can be seen and understood and the quality of new ideas or novel thinking can be checked. Taking pride in work, attending to details, practising and correcting any errors are indicators of the higher levels of creative thinking.

DEVELOPING CREATIVITY IN SCHOOLS IS CHALLENGING LARGELY BECAUSE THE UNITS OF CURRENCY IN SCHOOLS ARE THE SUBJECTS WHICH APPEAR ON THEIR TIMETABLES – ENGLISH, MATHS, HISTORY, ART AND SO FORTH.

Creativity in schools – chalk and cheese?
Developing creativity in schools is challenging largely because the units of currency in schools are the subjects which appear on their timetables – English, maths, history, art and so forth. Students' experience, at least at secondary level, is mediated by the knowledge and skills associated with a particular discipline. Creativity and creative thinking, on the other hand, are necessarily interdisciplinary and require a very different conception of the purpose of schooling. These dilemmas have been sharply exposed in Sir Ken Robinson's celebrated TED talk (*Do Schools Kill Creativity?, 2006*) where an argument is made that school's, essentially industrial paradigm intent on producing identically knowledgeable pupils should be thrown out in favour of one which favours personalised learning designed to develop students who can think for themselves.

Of course creativity and disciplinary knowledge need not be seen as binary opposites. Indeed evidence, both theoretical and empirical (Lucas & Spencer, 2017), suggests that they should not be. We learn to think creatively in a range of different contexts, not in the abstract. In a school setting these might form part of the school timetable or appear in its extra-curricular activities. Creativity can be both taught and caught, learned by using certain teaching methods which encourage it, and experienced through the medium of informal activities which promote opportunities for its expression. Importantly it is subject blind, just as likely to be part of a science lesson (think Hadron Collider beneath the border of France and Switzerland) as well as the more obvious opportunities afforded by the arts.

CREATIVE THINKERS PRACTISE A RANGE OF CONCEPTUAL AND PRACTICAL SKILLS IN ORDER TO IMPROVE.

Recently there have been exciting developments. A fourteen country OECD-CERI research project exploring the feasibility of teaching and assessment of creative and critical thinking has developed compelling evidence and many promising practices. A similar proof of concept has been established in more than 500 Welsh schools which are using the Centre for Real-World Learning's model of creativity in a national project supported by the Welsh Arts Council. Most powerfully the OECD has announced that the PISA innovative domain test in 2021 will be a test of creative thinking with Bill Lucas as the co-chair of its strategic advisory group. It is a well-known if slightly depressing phenomenon in education that, once a topic is deemed worthy and capable of being assessed, school leaders and teachers start to take it more seriously.

Creativity and creative thinking matter for their own sake. But there are promising signs that it may also improve performance in other valued areas of education. Leslie Gutman and Ingrid Schoon, for example, recently reviewed the evidence (Gutman & Schoon, 2013) and concluded that creativity, perseverance and various metacognitive strategies which we have described in our model of creative thinking improve outcomes for learners. Various other studies have shown the benefits of specific aspects of creative thinking such as these three examples:

• Curiosity and being inquisitive (Friedman, 2005)

• Persistence, perseverance and grit (Duckworth, Peterson, Matthews, & Kelly, 2007)

• Giving and receiving certain kinds of feedback (Hattie & Gan, 2011).

There is, in short, much about which to be cheerful. A well-established concept – creativity – is increasingly being embedded in the whole life of schools, with a growing body of evidence about how best it can be taught and learned and with growing understanding about how we can track the development of creative thinking in all young people more precisely and usefully.

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THE SPIRIT OF OUR TIME: DISCUSSING CREATIVITY IN THE AGE OF ARTIFICIAL INTELLIGENCE

Vaughan Clark | *History and History of Art teacher, Eton College*

Let me begin by suggesting why arguably some focal points of education might become obsolete practices in schools by 2030. This algorithm could replace the role of some teachers of Art History, such as myself:

• Begin task

• Collect data from multiple sources about: 'social values', 'the revolution in Germany after World War One', 'examples of Dada art after World War One'

• Instruct through description and multiple explanations about: 'social values', 'the revolution in Germany after World War One', 'examples of Dada art after World War One'

• Assess understanding by setting the question: 'How did Dada reflect the impact of revolution on German society?' by corroborating the choice of examples to see if they are appropriate

• End task

'Creativity is not remembering patterns.'[1]

The novelist and essayist Marilynne Robinson believes that Artificial Intelligence cannot possibly replicate human consciousness, but in fact the way that consciousness works in some circumstances may be something that we, or future learning systems, learn to see as being unreliable and relatively ineffective. On the other hand, the economist Andrew McAfee believes that Artificial Intelligence will free humans to be more creative. However, if given the opportunities to be so, to solve problems yet unsolved, will humans have learnt how to be more creative? Will we find in schools' strategic plans a focus on helping students to understand what it is that is human that cannot be replicated by algorithms?

'Creativity can't be taught. It is acquired through experiences. It is just part of your personality.'

Some readers will at this point want a definition of creativity. I agree with many that creativity is one of the most human things that we can aspire to master. There are many contested definitions, and it is worth noting that as a form of cognition, it comprises lots of other forms. I suggest for the purposes of secondary school education that it is helpful to define it in two ways. First, the process that leads to valued, innovative things that are the result of the need to solve a problem. Originality is often associated with this, but this is an illusory quality. In schools, whilst this definition needs to be respected, innovative thinking is very rare amongst pupils. Second, as a process formed from connections, synthesis, value judgments that have involved imagination, and increasing mastery of subject concepts and skills. Research and problems that are relevant and urgent serve the curiosity that gives momentum to creativity.

[1] Comments taken by four B Block (Year 13) boys who were commended for the school's essay writing prize in 2017, all showing creative approaches to their thought processes.

'I am being creative when I take information and turn it into diagrams.'

I have long given myself permission to believe that I know what creativity is and what it looks like in my schoolroom. I have spent much time over the past ten years wondering how to create the best environment in which pupils can be creative and how to set the most motivating expectations. When I can, I like to see my schoolroom not as a box with atomised individuals kept behind desks, but as a studio in which collaboration can take place. In this space, I occasionally try to encourage a sense of serious play. Many pupils have a desire to tap into their memories of how they learnt at primary school. I encourage students to make things and to learn physically, to convert language into a physical object or other form. I encourage guided meditation to instil calmness, concentration and to develop sensory learning. I also celebrate learning from making and producing second drafts or new iterations that improve on earlier efforts. When I introduce my Art History classes to Turner's watercolour paintings, they begin by making an abstract watercolour painting. They explore what the limitations of watercolour are as a medium, and how sensitivity is needed to make the medium expressive.

'I am creative when I have to think for myself, using everything that I know.'

I believe, metaphorically, in making pupils reach just beyond their grasp. Pupils will do this if they believe that their efforts are valued and acknowledged. A nursery for creativity needs to be a safe space for emergent behaviour: still one with critical thinking in evidence, but not a judgmental one or a divertingly competitive one. Researchers from the Guerrand-Hermès Foundation for Peace (McCarthy, Sommerville & Gill, 2016) identified three pedagogies that help to develop the pupil's sense of self, which will lead to them becoming more agile at creative thinking. These are a Pedagogy of Presence, Whole Person Engagement and Caring. One might summarise the three pedagogies as a pedagogy of presence. This involves the teacher modelling listening and encouraging the students to witness each other's actions, thoughts and feelings. It involves respecting the views of students and giving them the opportunity to articulate their ideas within small groups first and then with the whole learning community. The teacher can use the students' language to share their ideas with the whole learning community. Everyone values each student's emotions and narratives.

I have also tried developing a sense of confident uncertainty amongst pupils, modelled by myself. I am prepared to discuss what it feels like not to know the answer to a question or not to understand a text and then discuss how one tries to solve these problems. A former colleague taught me a technique used in drama improvisation which is

that peers should be prepared to say yes to every idea, to try to make each other look better and to be spontaneous. I aim to foster the first two, but I also think that pupils should be able to be silent, to be still, to be able to reflect or internalise, or even sometimes to daydream: qualities which would make most inspectors of classrooms nervous.

'Risk-taking, persistence and stubbornness are all needed to be creative.'

Being creative and innovative eventually relies upon an understanding of the subject that is deep and based on curiosity. Some aspects of the attitudes that make for creativity are transferable across subject disciplines. In teaching pupils how to be creative, one is looking to affect their behaviour as well as their cognitive abilities. For example, how can we foster reflective approaches or encourage the value of re-drafting work or reiterating a process? In his letters, Vincent van Gogh asked, 'How does one become mediocre?' He answers: 'by complying with conforming to one thing today and another tomorrow.' Creative people can be stubborn and certainly persistent; traits which can be encouraged. One is looking, for example, to encourage them to see connections between concepts, or to understand how to break things down to understand their components, before learning how to synthesise them again in interesting ways that allow for critical assessments. One is looking to initiate opportunities for them to try things again and to put into practice the lessons that they understand. All of this goes on in an environment where the teacher cares, as do the peers and the student. This is a fragile condition and can easily be lost if an activity is too open, if the pupils feel too vulnerable or if the problem set is too vague.

In our classrooms, we have rich resources that Artificial Intelligence cannot replicate, that at present we too often overlook. In *The Man Who Mistook His Wife For A Hat*, Oliver Sacks goes some way to identifying what these are. He states that 'our mental processes… are not just abstract and mechanical, but personal… involve not just classifying and categorising, but continual judging and feeling.' The consequence of overlooking this would be to 'reduce our apprehension of the concrete and the real.' Sacks bases this conclusion upon the observation that these qualities are founded upon a visual imagination that is built up over a lifetime of experiences and which leads to memories. Artificial Intelligence systems have to be very powerful to have the capacity to relate to granular memories founded upon significant moments. It is also unlikely that Artificial Intelligence systems will have the capacity to create scenarios in which unusual situations are constructed and tested.

'I don't think I would be happy, if I couldn't be creative.'

The capacity to create new meanings through metaphors and experiences is something that I hope will always be beyond Artificial Intelligence, and only possible by those that engage with their environment and peers and have a will to interpret from a personal perspective and engage with their creative capacities.

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WHEN I CAN, I LIKE TO SEE MY SCHOOLROOM NOT AS A BOX WITH ATOMISED INDIVIDUALS KEPT BEHIND DESKS, BUT AS A STUDIO IN WHICH COLLABORATION CAN TAKE PLACE.

DEFINITIONS OF CREATIVITY:
LOOKING AT THE RESEARCH PROCESS

Interviews by Iro Konstantinou | *Researcher-in-Residence, Eton College*

Two Design and Technology teachers at Eton College are undertaking a Masters in Education at the Faculty of Education, University of Cambridge. They are both looking at questions of creativity, albeit from different perspectives and in different contexts. Since the collection and analysis of data is not yet completed, they present their work through interviews they gave.

BEN COUCHMAN

IK: Do you want to tell me what your research question is about? And perhaps describe your methodology?

BC: I am looking into the perceptions of creativity, which is a very broad term and means very different things to different people. For one person creativity can be expressed one way but for another person it can be seen in a completely different light. For example, if you have pupils from different backgrounds and teach creativity to them, would they interpret 'We will have to build this or manufacture this' in similar or different ways and do they perceive creativity in a similar or different fashion? For my study I looked at two groups: the pupils here and a completely contrasting culture: I went to Ghana to a school there and I did two parallel studies. I wanted to see the similarities and differences to what they perceive as creativity. First of all, I wanted to establish whether there were differences from their culture, which is a very hard thing to pin down. One test theory is the one by Hofstede, his six dimensions of culture. I thought if I give them a questionnaire on that, I could have some answers on whether they are more individualistic or collectivist.

I was interested in Ghana because a lot of previous studies looked at western and eastern societies and how their perceptions of culture differ and how their perceptions of creativity differ, looking at China and America for example. To begin, I wanted them to assess something completely neutral because I didn't want to take something like a piece of art from the west which students from the west could have a bias towards; the same for Ghana, as I wanted to create natural stimuli. I asked students from both groups to make a series of sketches based on geometric shapes which are quite neutral, such as a rectangle, a triangle and a circle. They had a very short amount time, just one minute and a half, so they had to draw an image which could be based on anything but inspired by these geometric shapes. I had 30 students in each class from each school and they created a series of drawings. I had then a very large sample of drawings: I took 45 from each group, so I had a total of 90. I had a mix of these drawings and took a sample of five judges from each school. I used a conceptual assessment technique or CAT to assess the samples. The judges had 45 sketches from England and 45 from Ghana and they were mixed together randomly. They had to assess them using four scales of creativity: are they creative, are they unique, do they show technical quality, and do the judges like it? These scales are based on the work of Amabile and her research that was on a five-point Likert scale. The judges assessed the 90 drawings. I am now in the process of inputting that data and analysing them to see if they think this range of drawings is creative or not. I want to see if they perceive creativity in a similar fashion. This means I had a lot of quantitative data, but I wanted qualitative data as well. This is why I did a series of interviews, to give voice to the numbers. I asked the students to pick three drawings which they thought were the most creative and we had semi-structured interviews of what they think creativity is, how they define it and some examples of that. So that gave me a mixed-methodology. This was quite a laborious process, but I wanted to replicate a study done by Chen, who also used geometric shapes.

IK: What are you hoping to achieve with this degree? I am sure it must have been a balancing act of your time doing everything, teaching and studying.

BC: It has been an interesting discussion into the perceptions of this small sample of students, and I cannot generalise about either culture. But it might lead to some insights into my teaching. For example, I have multicultural classes. I might want to change my pedagogy of how teach creativity, how I try to establish what it is to begin with. I also wanted to further my education. I feel if you are a teacher you need to want to know more about your profession. I did a PGCE, which was a huge learning curve into the practicalities of teaching and the research behind that. The next step, I felt, was learning how to research and how to apply that to my class and to my pedagogy. It felt like a natural step for me.

IK: Why did you enjoy the most in this process of doing a degree?

BC: The fieldwork, the actual collecting of the data, the process of studying the two groups and working with the children. Of course, going to Ghana, sourcing the school, doing the study. It was a very rewarding process, actually.

I ALSO WANTED TO FURTHER MY EDUCATION. I FEEL IF YOU ARE A TEACHER YOU NEED TO WANT TO KNOW MORE ABOUT YOUR PROFESSION.

OLIVER COOPER

IK: Do you want to describe your project?

OC: It is about mapping my students' perceptions of creativity in an abstract way; without necessarily linking to anything they do explicitly in the classroom, trying to see creativity on its own.

IK: How is the data collection going? I know you are doing interviews with them at the moment. Have you heard anything you were not expecting?

OC: Nothing in terms of the content of what they said. They use the context of where the interviews take place, which is in the design and technology library, so there is a lot of context there around design and creativity. They talk about the subjects a lot, and how they are taught. They say very little about life more generally, about their life or outside the schoolroom. Sometimes they might talk about the future and how their future careers might require creativity, but that's the limit of that.

IK: What got you into the degree and how is the process of doing that while working?

OC: My PGCE was the first time I looked at creativity as a subject to be studied and understood on its own. It is important, as a design and technology teacher, to better understand creativity, being arguably the most important factor of a D&T education.

Then I started the MEd, which was a balancing act between the different commitments. I enjoyed the exploration of what the boys think and how they articulate it. I think I will enjoy analysing it. I think perhaps degrees are very box ticking, sometimes at the expense of learning. You have to do a lot of things. I think I want to explore more concepts but perhaps in not such a structured way.

IK: Do you think the insight from your degree can shape your teaching practice?

OC: I think in the long-term as I deliver the courses I can adapt some of my teaching, and rather than just teach them how to be creative I can teach them to understand the processes which allow them to be creative. I am doing a case study and I cannot generalise; it is exploratory and contemporary, as Yin describes it, so I don't know how much I can transfer that knowledge. But more broadly, as a subject we encourage creativity, and we have been having these discussions in our department quite a lot; if creativity was the end goal we could be doing more, there are things we could feasibly do. So perhaps gaining insight into what students think of as creative would be of use.

IK: For your methodology, I know you have used both interviews and questionnaires. Do you want to explain how you found this process?

OC: This is based on some previous work I have done, and triangulation was encouraged. I don't know if this will add to the richness and breadth of data but I would hope so. I wish I had more time so that I could pilot more of my methods to collect data. This is why I think that the structure of a degree doesn't always allow that. But I hope I can carry on exploring themes for my own development, personal interest. Something less formal, yes.

IK: Do you think the degrees you and Ben are doing might bring some new ideas to the department?

OC: I would like to think that.

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PARTNERSHIPS

TOWARDS A FRAMEWORK FOR UNDERSTANDING INDEPENDENT-STATE SCHOOL PARTNERSHIPS

Jonnie Noakes | *Director, Tony Little Centre for Innovation and Research in Learning*

In 2016 the Tony Little Centre commissioned an independent report from the University of Winchester and the UCL Institute of Education to review evidence about partnerships between state and independent schools. Our aim was to look at the state of the evidence and create a snap shot of current practices that we could share with other schools across sectors. The report was written by Bill Lucas, Louise Stoll, Toby Greany, Anna Tsakalaki and Rebecca Nelson (2017). After conducting a review of relevant studies, they concluded with suggested features which have the potential to promote effective ISSPs. The passage below is taken from their report and succinctly provides a taxonomy of effective ISSPs. It is followed by an example of how ISSPs can be applied drawing from the Schools Together Music Partnerships.

The review team concluded their review of the literature by drawing together work on the features of effective partnerships in the UK and internationally, and by combining evidence on effective school partnerships with the learning about partnerships that bridge cultural divides. We set this out in a tentative framework that could provide a basis for further research into ISSPs.

In developing their framework, the research team drew particularly on international research that often takes a more holistic view of school partnerships, for example from the OECD's Innovative Learning Environments initiative (OECD, 2013; 2015) and from Rincón-Gallardo and Fullan's (2016) analysis of research and case studies on effective educational networks. The OECD research establishes the centrality of learning as the focus for all actors involved in education and the need for 'learning leadership' (Istance and Stoll, in OECD, 2013, p 20), to set direction for learning within and across increasingly complex organisations, seeing that through into design and strategy. Learning leadership is needed to achieve coherence and synergy at all levels of a system including learning networks.

Rincón-Gallardo and Fullan, similarly, discuss the potential of partnership working in terms of the learning of students, teachers, leaders and the system as a whole. They define an effective educational network as collaboration that:

• deepens the learning and engagement of students

• enhances the professional capital (see, also, Hargreaves and Fullan, 2012) of teachers and leaders continuously to improve pedagogy and student engagement (see, also, Lucas et al., 2013)

• becomes a force of improvement in the whole system (p6).

Based on this work, the research team set out a framework as the beginnings of a way to understand the features of effective ISSPs.

Emerging features of effective ISSPs

Various aspects of ISSPs would appear, from this initial review of evidence, to be important:

• A mutually agreed and shared focus on ambitious student learning outcomes linked to effective pedagogy and an enriched curriculum and bringing benefits to all partners

• Consensus on long- and short-term purposes, goals and approaches with clear governance and accountability

• Skilled facilitation which is sensitive to context and that can build commitment and trust between all parties

• Learning leadership that is committed to bridging cultural differences and building mutually respectful relationships

• A commitment to participation and continuous learning by all staff

• Engagement of students, families and communities

• A focus on evaluation and impact

• Adequate resources to sustain the work, with dedicated staffing, time, clear processes and good communication.

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WHY MUSIC? SOME UNDERLYING RESEARCH

Iro Konstantinou | *Researcher-in-Residence, Eton College*

Sharp et al. (2002) trace the historical roots of the Independent/State School Partnership Scheme as was first introduced by the then Minister of Education, Stephen Byers, in 1997. The scheme at the time had a double purpose: to bridge 'the public/private divide [which] diminishes the whole education system', and to enable schools from the two sectors to work together in partnership on specific projects (DfEE, 1997). As Sharp et al. (ibid.) note the projects showed a great degree of diversity, covering a wide range of curricular areas. The large number of applications from schools to participate in the projects and the diversity in the proposals 'suggested that the pilot scheme had at least partly met a perceived need, […], which they considered would benefit pupils and teachers and raise standards in education' (ibid.).

Two decades later the DfE still supports and encourages the scheme and looking at the Schools Together website there are currently an impressive 2607 projects which are underway, spanning from Science to Arts, and from Music to Volunteering (Schools Together, 2018).

Why music?

University College London, which has supported numerous music projects in schools, has come to some very promising conclusions, citing three large projects: Sing Up (primary), Musical Futures (secondary), and Sound of Intent (special needs). For example, they reported that better singers had a more positive view of themselves and a stronger sense of social inclusion; there was a direct positive impact on pedagogy; and the creation of resources which can significantly enhance the experiences of those with profound and multiple learning difficulties (UCL, 2012).

The above case studies all point to the beneficial aspects of music education; however, the most compelling evidence for why music should be pursued across schools comes from a review on neuroscience which suggested that actively making music can contribute to the enhancement of a range of non-musical skills (Hallam, 2015). The review covers a range of areas where music proves to be beneficial including transfer of learning from musical skills to other skills, such as fine motor skills and sensitivity, among others; aural perception and language skills; development of literacy skills, including writing, spelling and reading; aural and visual memory; spatial reasoning and mathematical performance; executive function and self-regulation; and creativity.

What next?

The evidence indicates that music can have a direct impact on academic achievement, as well as on personal and social development of pupils. The various case studies also suggest that partnerships which revolve around music can be very successful (for example, see Ofsted, 2012; UCL, 2012).

Nevertheless, music, along with other creative subjects, is being squeezed out of the curriculum (Burns, 2017). Moreover, in its current form, secondary music education largely involves a kind of music which might be typically be associated with school music, which requires a particular infrastructure or is seen as a co-curricular pursuit. In this sense, very often when students graduate they do not have opportunities to engage with music, as there are fewer such opportunities (Kuntz, 2011). It is for this reason that Regelski (2007) concludes that few students will seek music degrees, while the majority of students end their formal music education at secondary school. And yet music is an inseparable part of the human experience and plays an important role in the lives of adolescents (Campbell, 2007). For this reason, Campbell (1999) suggests educators have the responsibility to ensure that each student leaves their classrooms believing in themselves and their musical abilities, and with a desire to continue making music that will last their whole lives. For this to achieved it might be worth considering an approach whereby music serves a purpose beyond the confines of the schools and equips teachers and pupils with skills which can yield from collaborations, and create music programmes which are more inclusive, relevant, and encouraging to a wider range of students (Scully, 2014).

Within this theoretical framework, Eton College participated in the Music Partnerships Projects, which involved eight case studies and brought together dozens of schools and hundreds of pupils. The insights of these projects are discussed below and aim to contribute to the wider dialogue of music ISSPs.

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TEN INSIGHTS INTO MUSIC PARTNERSHIP PROJECTS

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Assessing the impact of cross-sector school partnerships is a knotty problem. Often the exercise boils down to a process of comparing apples with pears.

For a long time, the Music Department at Eton has been engaged in a number of small-scale projects such as workshops at local primary schools. However, there was a desire to develop such projects to a larger scale and a broader partnership. This project was devised to test a theory: that if we assembled ten practitioners working on similar sorts of partnership – in this case, music – we would be comparing like with like, and we might find ourselves coming to valuable syntheses which could inform a broader audience.

As this project came to fruition we held the first 'Tony Little Centre partnerships seminar' on January 10, 2018. From the discussions that took place we gleaned the following ten insights. These formed the introduction of a new publication *All Together Now,* edited by Tom Arbuthnott with Peter Hatch, which brought the projects together, and is now available to download[1]. This report sets out a series of case studies, ranging from the simple to the complex, that might help Directors of Music and Partnership Co-ordinators in state and independent schools to devise music partnership projects.

[1] www.schoolstogether.org/publications

Insight One: Music is a great way in to partnership activity.

Music lends itself unusually well to simple outreach projects. All it takes is a great instrumentalist, a band with more chutzpah than quality, or a single Visiting Music Teacher with a little spare time, and a performance in a local school can generally be fixed up easily.

Furthermore, music is clearly an area where the independent sector and the state sector complement each other. Even the smallest prep school often has outstanding musicianship and can be a centre of excellence in a local community. Small state sector primary schools often lack the infrastructure for a music department and a partnership can provide music opportunities to the community more broadly.

Insight Two: The more complex the partnership, the more complex the possible project: although starting from simple projects might be key.

While the simplest projects represent an entry point to partnership activity, what is really exciting is the way in which those projects can potentially be scaled up.

More sophisticated projects are generally backed by highly complex partnerships. The advent of Multi Academy Trusts in the state sector has created a complexity in the relationships between schools that is most conducive to outstanding, partnership-based music projects.

Insight Three: Music can give rise to the epiphanic moment. Complex projects take that moment and do something extraordinary with it.

When analysing the outcomes of music projects, similar points to the ones about complexity might arise. Music is unusual in terms of school life through the emphasis that it places on *the epiphanic moment,* which is when a student is exposed to quality music for the very first time, whether this moment comes from singing in a choir, listening to opera or participating, possibly with an easier part, in an orchestra.

As Martin Leigh puts it, "There are moments in life which put you on a different course."

THE MOST SUCCESSFUL PROJECTS TEND TO THINK ABOUT THE PARENTS AS WELL AS THE CHILDREN.

Insight Four: Music seems to bring benefits to other areas of a school.

A school with music can provide elements to build a school community which is richer and more varied than those schools which do not engage in music as much. This provides a very specific yardstick to use in music projects which does not apply in all areas. Through our case study and similar case studies which participated in the Schools Together projects, we found that usually schools which have an outstanding music department tend to be outstanding in other areas. This might be the result of a number of reasons; however, in our project we found correlations between the two factors.

Insight Five: There's value in dedicated partnership time within your school.

Two of the music projects represented benefited enormously from dedicated time during the week that could be devoted to partnership activity. Both King Edward's School and KCS Wimbledon dedicate their Friday afternoons every week to non-sporting co-curricular activities, when every child in the school is therefore free at the same time – and, crucially, this is a time where local schools are in session. This is time which can be allocated to music and which students seemed to enjoy immensely.

Insight Six: Choral music makes a good place to start.

In terms of starting out with a partnership project, choral works outstandingly well. This means that any child, whatever their musical hinterland, can participate meaningfully. Furthermore, a choral event also enables the benefits of a music project to be shared widely through a community. The most successful projects tend to think about the parents as well as the children. The Romany Wood project, for example, included a budget which enabled parents to be brought in from Small Heath, Shard End and Chelmsley Wood to watch their children perform at Symphony Hall. While the impact of this is difficult to measure, it seems to have a considerable value, which can potentially be quantified in the future.

Insight Seven: Impact assessment is best woven into a project from the outset.

Small-scale partnership projects, musical and otherwise, often forgo impact assessment: it is seen as red tape, bureaucracy or a needless task; however, it matters. If we are going to build constituencies of support for partnership projects, whether in government, in the media or in our own senior leadership teams and boards of governors, we need to show that these projects are more than window-dressing, and that they have a genuine impact on the pupils who participate.

With this in mind, it is important for projects to have clear objectives and success criteria. Those involved in the process need to demonstrate how they reflect on setting these criteria and how they are used to help to contribute to self-improvement.

Insight Eight: ISSPs are only part of the spectrum of possible partnerships. Partnership design can be tied to the local musical context.

There are lots of stakeholders in music education. Schools are only part of a vibrant musical commonwealth. In particular, music partnerships can benefit from working with work with *Music Mark* and the *Music Education Council*. There is a lot of analysis out there that one can take advantage of in targeting and assessing a project. One might identify a ward with a very low level of music participation and demonstrate impact; or build a long-term element into an 'epiphanic' project so that one can track how many children have taken up instruments as part of that initial experience.

Insight Nine: Evaluation enables fundraising.

Objectives need to be stipulated and monitored as the project develops in order to create evidence of success.

Insight Ten: There is evidence of improving relationships between sectors and of more ambitious outreach strategies in schools.

Partnership offers are not always welcomed – a reminder of narratives which dominated in the 1980s and pointed to a division between the sectors. However, the number of partnerships projects in evidence suggests that this rift is no longer as stark as it used to be. It is welcome that increasing numbers of schools are appointing partnerships co-ordinators at Senior Leadership levels. This person has the clout to be able to make projects coherent within and between schools, and increasingly should have the expertise to apply consistent impact assessment and communications frameworks across different projects.

THERE IS A LOT OF ANALYSIS OUT THERE THAT ONE CAN TAKE ADVANTAGE OF IN TARGETING AND ASSESSING A PROJECT.