The Pioneer

Brentwood School Research & Development Journal

October 2023 | Issue 2



#WeAreBrentwood





Contents

| Headmasters' Welcome | 01 |
|-----------------------------------|--------|
| CPD Team Introduction | 02 -03 |
| Teaching: An Art and a Science | 04 |
| Learning Communities | 05 |
| Research Engaged CPD. | 06 |
| R&D Facilitator insight | 07 |
| Meet our Postgraduate Researchers | 08-19 |
| Journal Articles | 20-59 |
| A selection of Staff Reflections | 61-73 |
| Ideas Fair | 74-83 |
| Research Posters | 84-85 |
| How to get involved | 86 |



Headmasters' Welcome

Michael Bond & Jason Whiskerd



Michael Bond

Welcome to 'The Pioneer', our academic journal that showcases some of the research undertaken by colleagues from across Brentwood School.

Our R&D programme is increasingly regarded as an example of excellent practice in CPD: it allows individual teachers to draw on their direct experience and create bespoke (and often unique) enquiry-based projects that others can also use either concurrently (as part of the different Learning Communities

that run throughout
the academic year) or
subsequently (by referring to
this journal). It is one of our
flagship programmes as we
explore how we might shape
a curriculum that will help
our students prepare for a
rapidly changing world, and
I am delighted to commend
our second edition to you. I
hope you enjoy reading it!

The educational sector is certainly facing a number of challenges and the importance of embracing change is arguably as important today as it has ever been.

As a consequence, our R&D programme is the perfect vehicle for developing the most modern pedagogy and research on what matters most to the pupils in an educational sense.

Our teachers are given a very wide starting brief and the depth and scope of the research programme is testament to both their professionalism and desire to improve their subject

knowledge and their wider teaching skills. The greatest beneficiaries of this work are undoubtedly the pupils, and this is something that we can all be justifiably proud of as a learning community. I hope you enjoy reading this wonderful journal, and would like to place on record our thanks and gratitude to all those who have led and contributed to it.



Jason Whiskerd

The CPD Team

Introduction

At Brentwood, we strive to achieve a self directed, bespoke learning experience which enables staff to identify and work on the area of professional development most relevant to them. This makes professional development more meaningful, and allows staff time to critically evaluate their impact on their students and their educational outcomes, and make informed decisions about their practice in the classroom and beyond.

The ultimate aim of the R&D programme at Brentwood School is to provide our students with the optimal education experience, to ensure that each and every one of our students achieves their full potential. As a school, we believe that this simply cannot be achieved without regular and meticulous evaluation of our professional practice, which includes engaging with current relevant research. New pedagogies must be applied within our unique educational setting, and impacts observed and, where possible, quantified so as to best understand the value - or lack- that such practices bring to our students.

The Research and Development programme works to achieve our goals through focusing on three key areas:

- Bespoke R&D Learning Communities
- Funding and support of staff undertaking postgraduate research
- The development of a research network within the local education community.

We extend a huge thanks to the staff who have engaged so enthusiastically and professionally with the R&D programme and hope that this journal acts as an effective celebration of their work. We very much hope that you enjoy reading this second edition of The Pioneer.



The 'Why' from Brentwood School staff...

"To research and develop ideas that have an impact on teaching and learning results, and to share best practice".

Daren Partridge Head of Science (Prep) "To question our usual ways of teaching and re-find the 'why' for certain pedagogical practices".

> **Claudia Hardy** Head of Voluntary Services

"To support staff with their professional development and to give them the opportunity to research areas of interest in order to improve their teaching".

Miriam Morris Head of Modern Foreign Languages

Your CPD Team



Hattie Barfield MooreDirector of Pedagogy &
Staff Development 3-18



Beth FullerActing Director of
Pedagogy and Staff
Development 3-18



Alice Goodfellow (nee Miller) Deputy Head Staffing & Co-Curricular



Michelle NichollsDirector of Pedagogy &
Staff Development 3-18



Reina CampbellProfessional Coordinating
Mentor 3-18



Greg JusthamDirector of Innovative
Curriculum



Aisling FahyHead of Research
and Development



Kerry CookeDeputy Head
Academic (Prep)



Iona RossFormer Head of Research and Development



An Introduction to The Pioneer by Sharath Jeevan (OBE), author of Intrinsic: A manifesto to reignite our inner drive. Guest Speaker of Ideas Fair 2021 and Old Brentwood.

Dear readers,

It was such a pleasure to attend the Ideas Fair and to see the energy and innovation it has unleashed among the remarkable team at Brentwood.

My work and research shows one thing: teaching is such a rewarding but complex job because there are few "right" answers. There are millions of different permutations that teachers need to make, based on the student, classroom and subject context and these, of course, need to be managed in real time.

The very best teaching is both a science and an art. It's all about employing professional judgement and autonomy, while making sure we keep the needs of our students at the centre.

No lesson is ever the same and as professionals, it's critical that we keep growing and developing our professional mastery. If one of the most important things we can inspire in students is "Learnability", we need to role model it ourselves.

The wonderful set of innovations described in this journal are exciting on a number of levels. First, they speak to the values and focus of the School's professionals and their commitment to ground their research in the real issues their children are facing. Second, the research topics selected have potential to contribute to the wider discourse not only at Brentwood but at many other schools. Third, they bring a powerful link between practice and research that allows us to reflect and continually refine our practice.

I am excited about the impact of these innovations and practices on the lives of students today, but equally how there will be many more innovations to come.

A huge congratulations to everyone who has taken part in this new journey. You have all been pioneers, paving the way for others.

Sharath Jeevan

Learning Communities

2021-2023

As our R&D programme grew and evolved, we responded to staff feedback and added a number of new strands: a Literature strand, a Lesson Study strand and an External Accreditation strand. These additions help us to fulfil the aim of the programme being meaningful to all staff no matter what stage of their career or research proficiency they are at.

Our Learning Communities are the core part of the Brentwood School professional development programme which all staff participate in. The programme follows a tried and tested yet ever evolving approach to ensure the continued refinement of professional practice.

There are currently four main strands within our programme:

- · Literature Study
- · Lesson Study
- · External Accreditation Group
- Independent Practitioner Enquiry Group (colloquially "R&D")

Staff are split into small Learning Communities within each strand, and meet periodically throughout the academic year to engage with research, design innovations to professional practice and evaluate the impact of those innovations. Each Learning Community is guided through a cycle of practitioner enquiry by an Institute of Education trained and certified facilitator.

As a bespoke programme, we are always looking at ways to improve and evolve our program to meet the needs of our staff.

The culmination of our Learning Communities meetings is the Ideas Fair, held at the beginning of each academic year as a celebration of the practitioner enquiry which has been undertaken, and a springboard for future discussion and enquiry within our community.

Research engaged CPD

| | Main Strand | New Strands 2022 - 2023 | | |
|-------------------|--|---|--|--|
| Strands | R&D Communities | Literature Group | External Accreditations | Lesson Study |
| Who is it for? | For staff with projects focused on the School Improvement Plan (SIP) and Department priorities. | For staff who have completed several cycles of R&D, or those new to the school who wish to explore current research based literature. | For those who are currently working on other forms of research engaged professional development, such as Masters, NPQs and subject equivalent courses. | For ECT and staff at an exploratory level of their research who want to work in cross department groups. |
| What is involved? | Research, plan and implement an innovation, then measuring the impact over a cycle. | Read assigned literature before discussing in the classroom. | Time to work on the external course, and meet and support others in a similar situation. | In a group, plan a lesson to meet a class learning goal, observe the lesson and reflect together. |

R&D facilitator insight

It has been great interacting with a range of people about various projects.

It informed me of my own practice and gave me a chance to meet teachers from all parts of the school.

This context based CPD fosters collaborative approaches, professional dialogue and learning with others.

Opportunities to work with school based colleagues to bring about change are great.

I have really enjoyed learning about the RED process in more detail this year as a facilitator. I have enjoyed hearing about other people's projects and sharing ideas in our learning communities. It has been rewarding seeing people's enthusiasm for their projects.



Teachers are actively, participating in their own learning and making positive changes to their practice. It focuses on embedding improvements.

I enjoy working with people, building a community, developing professional relationships and encouraging discussion. I enjoy working alongside another facilitator and not leading on my own.

Meet our **Postgraduate Researchers**



Joe ScotlandTeacher of Computer Science



Adrian McConnaughie School Chaplin, Teacher of Chemistry



Tracy OldlandTeacher of English



Sam Levien
Assistant Director of
Studies/2nd in English



Ania Kwolek Teacher of English



Ben CrickmayTeacher of PE and Games,
Lead Practitioner-Core PE,
Head of Thorndon House



Chris BeadlingHead of Physics



Jess Campbell-May
Teacher of Psychology
and Biology, Deputy Head
of Hartswood House



Blaise CarolanFoundation Teacher



Amy Cooper Head of English



Alex HelsbyHead of Girls' Games - Prep,
Head of House - Heseltine



Amy CashHead of Economics



David RevelsAssistant Director of
Music, Teacher of Music



Claudia HardyHead of Voluntary
Services and Charity



Reina Campbell
Professional Coordinating
Mentor 3-18



Emma Faulkner
Teacher of Biology &
Chemistry,
Head of House - Weald



Sarah Playfair-Moss Head of Year - Foundation



Matt Bauer Head of EAL, Gold Award Leader -Duke of Edinburgh, Teacher of German



Beth FullerActing Head of Pedagogy
& Staff and Head of
History and Politics



Megan Swettenham Officer in Charge Army -CCF, Teacher of Classics, Senior School



Daren PartridgeHead of Science - Prep
Head of House - Tasker



Louisa Corry Reception Teacher



Steve TaylorBoarding House Master,
Teacher of English



Claudia Micallef Head of Economics and Assistant Head of Academic Enrichment



Michelle Nicholls
Head of Pedagogy and
Staff Development
(Prep Lead)



Jag KhushHead of Year 10,
Teacher of Chemistry



Sarah McConnaughie
Director of Learning
Support and
SENDCO - Prep



Jing Rodgers Head of Mandarin



Libby Warnes Head of Mathematics

In 2013 Goldacre claimed that there is a huge prize to be won by teachers and schools by 'collecting better evidence about what works best, and establishing a culture where this evidence is used as a matter of routine' this will 'improve outcomes for children, and increase professional independence'(pg 7). This statement was illustrative of a shift in thought and practice amongst schools and educators at the time. Through our commitment to research engagement and evidence informed practice, Brentwood School is becoming a leader in the field of research engagement. The following quote from the 2016 Education White Paper demonstrates research engagement to be a systemic priority but also highlights some challenges.

'It is not yet as easy as it should be for teachers to find and use evidence to improve their teaching practice because the evidence base is patchy, difficult to access or to translate into action. Too little research is directly driven by the priorities of teachers and schools; too little is sufficiently robust in quality' (DfE, pg 39).

However at Brentwood, due to our generous funding of masters, PhD and other postgraduate programmes, we go some way to bridging the communication gap between academic researchers and classroom practitioners and have been able to enjoy many benefits from this. Below you will find a short bio from each

member of Brentwood staff engaged in postgraduate research including details of their topics of study and how they benefit the wider school. This is followed by an outline of our plans as a school to further develop our commitment to evidence and research informed practice through the funding of postgraduate study.



Staff who have recently completed their course:





Benjamin Crickmay

I have recently completed my MA at UEL. My final year involved conducting my dissertation over a 12 month period, working closely with staff and pupils at Brentwood School. The project served to identify a long-term pedagogic approach to PE curriculum design that enables a sustainable pupilled approach. These findings have informed our approach to PE at Brentwood, with our Core PE offering now underpinned by theoretical

and anecdotal evidence.
This research has provided me with the opportunity to gain employment with The University of Buckingham as a PGCE Tutor, supervising on the MA in sport programme. I am excited about the prospect of shaping the future of PE, whilst offering specialist talks around curriculum design/constraint-led learning. I am pleased to confirm that I was awarded a Distinction for my MA Education.





In September, I completed my MA in Professional Education accredited by the University of Warwick. I was immensely proud of this achievement as I wrote my thesis having recently become a new mother. While it was difficult to balance the demands of educational research and parenting, I managed to achieve a Distinction for my work. I found the process incredibly valuable in terms of improving my teaching practice because it enabled me to read widely around

academic literature on outdoor education. This gave me lots of new ideas for developing the Year 8 STEAM enrichment programme. I also found the 'Ethics in Educational Research' valuable in developing my understanding of how to be an effective teacherresearcher and consider my own position in the research process. I am hugely grateful to Brentwood for engendering a love of educational research and for their financial support in doing so.



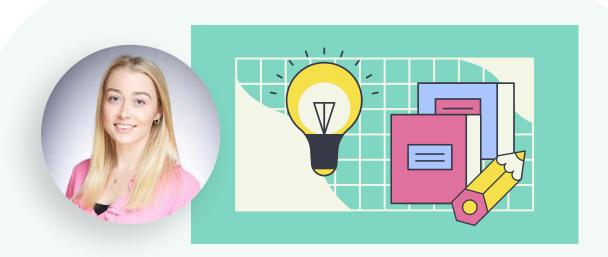


In November 2022, I completed the NPQ in Leading Teacher Development with the Harris **Chafford Hundred Teaching** School Hub, assessed by the University of Newcastle. It was announced in January 2023 that I had passed the assessment process and I now hold this DfE accredited qualification. This course is aimed at teachers who have, or are aspiring to have, responsibilities for leading the development of other teachers in their school. They may have responsibilities for the development of all teachers across a school or specifically trainees or teachers who are early in their career. The modules covered on the course (Designing Effective Teacher

Development, Delivering **Effective Teacher Development** and Implementation) link directly to my role as **Professional Coordinating** Mentor (3-18) and my oversight of our professional development provision for PGCE trainees, PGCE placements from partnership universities, ECTs (Years 1 & 2) and their mentors. I have been able to apply the skills and knowledge gained to further develop our CPD programme to ensure that teachers early in their career at Brentwood (and their mentors) receive a high-quality provision that is suited to their individual needs and also aligned with our school priorities.



Staff currently undertaking their course:



Megan Swettenham

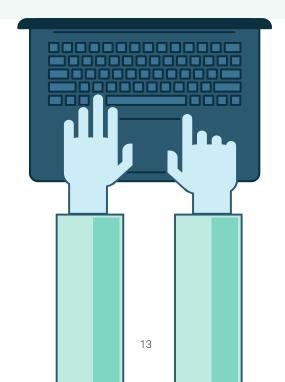
I am currently part way through an MA in Education with UCL's Institute of Education.

I have thoroughly enjoyed exploring the diverse area which is educational research this year and look forward to expanding upon this next year in greater detail with my dissertation.

It is difficult balancing further study with a busy teaching and co-curricular timetable but it is something I have enjoyed immensely.

I am currently gathering data for my dissertation which seeks to explore the difference in provision and participation between the state and the independent sector. This will culminate in a 16,000 word essay due in September.

Alongside my dissertation,
I have completed one other
module this year - "Critical
Perspectives in Teaching and
Learning". I have particularly
enjoyed this module as
it has encouraged me to
consider and critique my own
classroom practice. I am
looking forward to finalising
my dissertation research and
sharing my findings with the
wider school community,







Alex Helsby

I am undertaking an MA in Education (Leading Sport in Schools) accredited by The University of Buckingham in conjunction with the **Professional Association** of Directors of Sport in Independent Schools (PADSIS). My first year consisted of 3 modules, 'The Historical Context of Sport and Physical Activity in Schools', 'Contemporary Issues in School Sport and Exercise' and 'Leadership and Management in School Sport'.

I am in my second year of the two year course and have just completed 'Building a Positive Culture in Sport and Physical Activity' which was assessed through a 5000 word essay based on my own pilot project. The aim of this module was to evaluate research and theoretical knowledge for an effective sporting culture, to

gain an insight into cultural impact and the way in which leaders influence the culture of their organisation. It needed to reflect on the current culture in my organisation and assess the effectiveness as well as enhancing it. My chosen title was: 'To what extent is our school sporting culture influenced by the school's values and ethos?'. I wanted to gain an insight into how our school community views and values, our current sporting culture and how our school values influence this culture, positively or negatively.

I have just begun the final research project (dissertation). I am planning to conduct a study on girls' participation in sport, trying to understand why there is still a large dropout rate through adolescence and what can be done to decrease it. Research suggests that pupil

experience at a young age affects their desire to continue with sport later in life. As part of my research project, I plan to interview pupils (10) from Year 11-13, to gain an understanding of their experience in sport and the impact they feel different factors including teachers' leadership style, choice of activity, clothing and parental and peers influence have affected their sporting careers so far. I will also interview staff on their leadership style and how they conduct sessions to keep girls engaged and inspired.

The course is developing my own practice and understanding and will aid the future provision of the department with a key focus on how to keep children engaged in physical activity during their education and beyond.





Beth Fuller

For the last 9 months I have been completing my NPQSL through the Institute of Education at UCL. The NPQSL has included a wide range of units including an introduction to implements, teaching & learning, curriculum planning, SEND and the role of the governing body in schools. The course has been designed so it is applicable to both primary and secondary stage teachers which has allowed me to develop my understanding

of primary considerations which is very important as we embed the 3-18 school. Despite the fact I am not yet finished with my course (my assessment window is in September) I have already been able to use the work I have been doing in a practical way in school. The teaching and learning and curriculum units formed the backbone of a lot of the work I did with Middle Leaders Away Day in January.



Matt Bauer

Since spring 2022, I have been on the NPQSL course with UCL. In this course. I have learned how to develop a school's ethos and strategic vision, how to create a culture where both pupils and staff can develop the best versions of themselves through a motivating and enriching school life. In addition, I have looked at upholding high educational standards, positive behaviour and creating respectful relationships within the school. Furthermore. we have followed current developments and carried out academic research in terms of "Teaching", "Curriculum & Assessment", and "SEND". In addition. the course has covered the areas "Organisational management", "Working in partnership", and "Governance

& accountability". This has given me insight into the short and long-term planning processes within a 3-18 school environment, and allowed me to learn more about the non-teaching side of the school, the stakeholders involved and how best to achieve our common vision and aims.

Finally, as part of my implementation project, I have looked into the provision of Peer Mentoring and the benefits it has for pupils. In Modern Foreign Languages, we have Sixth Form students tutoring Year 11 students, for example, and whilst it has been hard to measure the exact impact of the tutoring sessions, the students' feedback has been incredibly positive and they feel it benefits their confidence and performance.





Libby Warnes

I started the NPQSL in November 2022 through the Institute of Education at UCL. I have just finished the first module focusing on implementation, behaviour, school culture and professional development. To complete each module, I am required to reflect on how different research and strategies are used or not used in the school and in my own practice. It has also been really beneficial to meet with other middle leaders and to learn from more experienced members of staff.

As part of the course, I need to start an implementation project and I am currently looking at the approaches of students to homework, starting in Lower Sixth maths and to be extended to the rest of the year groups and hopefully other subjects. This was identified as an issue because of the amount of students who copy work which is of no benefit to them and also that technology is making it easier to find answers to exam questions or work out the answers to a maths question.





I am completing a Level
3 Forest School Leader
Qualification, provided by
the Forest School Learning
Initiative. The course is split
into four modules; Forest
School Programme Planning
and Preparation, Delivery,
The Woodland Environment,
and Practical Skills. These
are assessed through essays
on many different topics,
including "An Evaluation
on Ways in which Forest

School encourages, physical development and well-being, social and emotional development and well-being" and "Assess the Ecological impact of Forest School on your site". I have found that Forest School has positive impacts on children in terms of confidence, social skills, language and communication, motivation and concentration, physical skills, knowledge and understanding.





Amy Cooper

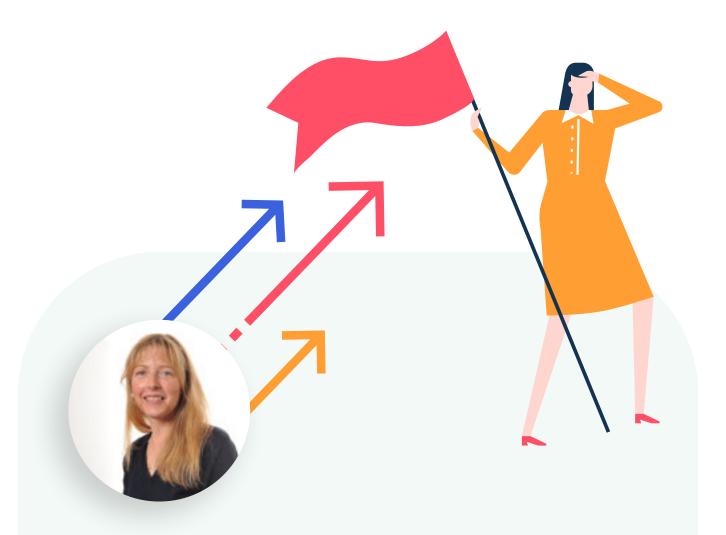
I began the NPQSL course in November 2022 through the Institute of Education at UCL. I have just finished the first module focusing on implementation, behaviour, school culture and professional development. This has been invaluable to my current practice as a middle leader as I am able to reflect on researchbased methods to initiate and manage change. Furthermore, I have greatly benefited from the opportunity to collaborate with other professionals about ways in which we can implement and sustain whole school strategies. As part of the course, I have chosen to develop and implement whole school literacy strategies, in collaboration with a working party, the Director of Innovative

Curriculum, and the Deputy Head (Academic). Since 2020, we have looked into barriers to literacy in the senior school and ways in which we can address these areas. In gathering feedback from academic Heads of Department in 2021, we identified that: Brentwood pupils in the Senior School frequently need support in comprehension skills understanding what they are reading, whether the meaning of content or what is meant by a question, inferences, implications, subtexts; pupils frequently lack resilience, motivation, concentration or patience in reading for a sustained period; this has been particularly evident following COVID and 2020 lockdowns; pupils frequently lack

confidence in speaking aloud, or have issues with clarity or coherence in explaining ideas (oracy); pupils sometimes have challenges with spelling or structuring extended writing.

The strategic plan we have drawn up aims to develop the Communicators attribute in pupils, in the context of the particular challenges identified in our school.

We have four Developing Communicators aims: 1) Develop ability to understand texts; 2) Develop sustained concentration for focusing and reading; 3) Develop oracy through presentation, discussion and debate 4) Develop structured extended writing.



Sarah McConnaughie

I am doing a Senior Leader Apprenticeship with a Level 7 Post Graduate Diploma in Applied Leadership and Management with an optional Masters in Leadership, Strategy and Management or MBA. The course is delivered through the National College of Education and the University of Roehampton. It is funded through the apprenticeship levy. It is a 20 month programme + 4 months End Point Assessment. Most of my cohort are existing Headteachers or members of SLT and are taking the course in place of the NPQH. The course is assessed through a Portfolio of Evidence completed over a

minimum of 520 hours, a one hour professional discussion on the portfolio, a Strategic Business Proposal and Proposal Presentation and 4 x 3,500 word reflective reports demonstrating application of module specific business tools in my school context.

I started the programme in September 2022 and have completed modules 1 and 2. Module 1 focused on strategic intent and the assignment required the application of a range of business management tools to evaluate the school's present approach and make recommendations. Module

2 has been people centred and the assignment was to assess the impacts, effects and efficacy of the school's people strategies. I have found it a very interesting but demanding course. I complete between 6-10 hours of independent study every week which is essential to reach the end point with the required hours and evidence in place. I have a much clearer understanding of strategic tools and how these can inform decision making within any business organisation such as a school and can see the positive impact it has already had on my team leadership within the prep.



Adrian McConnaughie

I am currently registered with the Institute of Counselling as I complete their Diploma in Clinical and Pastoral Counselling. This is a distancelearning course and comprises 4 stand alone certificate courses. I am in the process of completing my third certificate course - Crisis and Trauma Counselling, having completed the Introduction to Counselling course and the Bereavement Counselling course recently. The fourth and final course is focused on Family Counselling. The course has been very beneficial in a

number of ways. On a very practical level, it has been helpful in my pastoral ministry at school where counselling and pastoral support form a significant part of my day-today role. The Bereavement course, in particular, has been very beneficial in the support I offer to the school community at times of significant loss. The course has also been helpful in allowing me to continue to deepen and develop my knowledge in this area which was part of general ordination training.

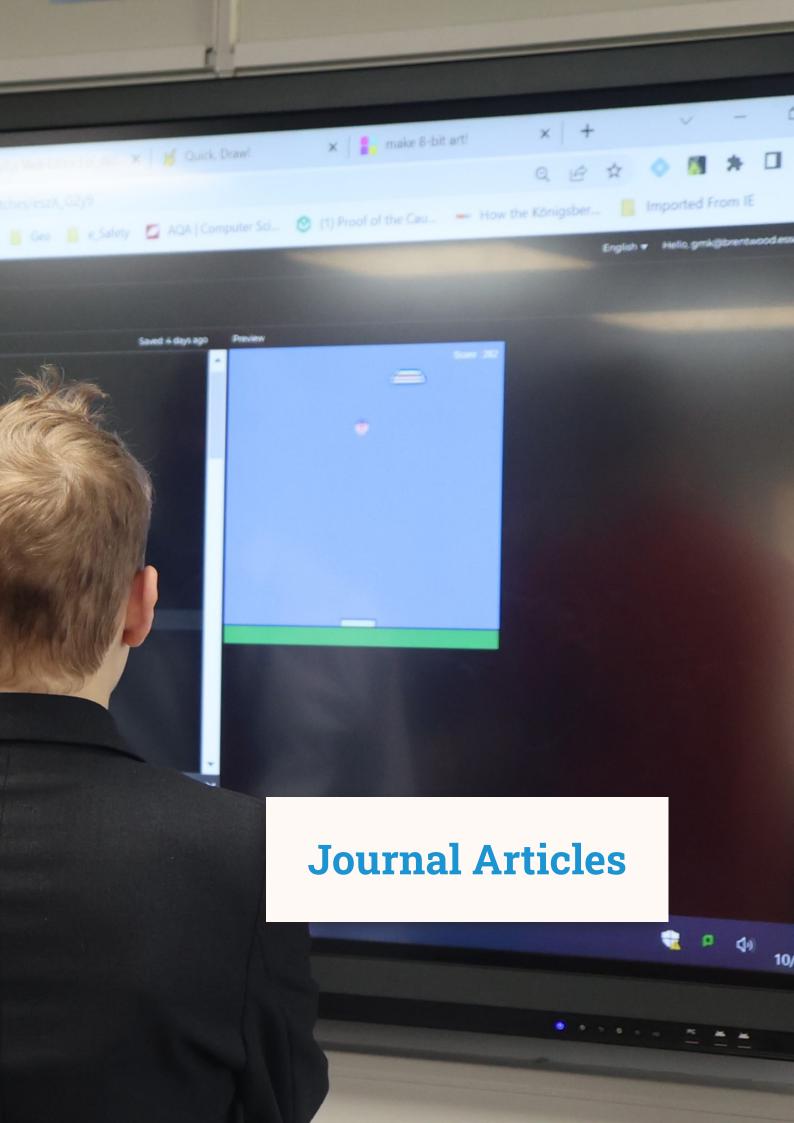


Steve Taylor

I am in the first year of a two-year Level 4 course in Counselling and Psychotherapy which is accredited by the BACP. The course provider is The Listening Post and I attend one evening a week and one Sunday per month. The focus of this course is to provide the necessary theory and practical skills to be able to work with clients using an integrative approach. Assessment is through weekly Reflective

Journals and research essays, the first of which was focused on anxiety in adolescent males. I recently passed my 'Fitness to Practise' which means I am able (under supervision) to see clients and have secured an evening placement with Thurrock and Brentwood MIND. The counselling skills I am gaining are invaluable in my role as Housemaster which often requires me to support boarders with wideranging pastoral issues.





A year at UCL's Institute of Education studying for an Education MA

Megan Swettenham - Teacher of Classics





Scan the QR code for the full article

Key words/phrases:

Below are extracts from three essays I have written as part of my MA in Education.

During my first year I have studied three modules; "What is Education?", "Understanding Research" and "Education and Identities: Citizenship, Rights, Narratives". These modules have provided an introduction to educational research and discourse. Next year, I will undertake a full scale research project which will culminate in a dissertation.

Do "elite" subjects, such as Classics, play a role in perpetuating social reproduction?



"Pierre Bourdieu's sociology of education states that secondary (and tertiary) education play a significant role in reproducing social classification (Bourdieu et al, 1990). Bourdieu's theory of social reproduction posits that unequal opportunities in education lead to limited social movement between the social classes. One example of the inequality in today's education system is access to the study of certain subjects. As a result, subjects such as Classics, which are predominantly taught in the independent sector are now considered 'elite' subjects. This is because the study of them is largely restricted to upper and middle class pupils whose parents can afford to invest money in their education (Bryant, 2021). Pupils who lack the economic

capital to study these subjects arguably become disadvantaged due to the greater cultural capital attributed to these subjects. 'Elite' subjects have high cultural capital because so few people study them. Pupils who are precluded from accessing these subjects do not seek to challenge such inequality. Through Bourdeiu's sociology of education, I shall explore the extent to which the study of Classics, a so-called 'elite' subject, plays a role in perpetuating social reproduction."



How can different approaches to research shape educators' knowledge of feedback?



"As a teacher, I am interested in how to engage students with feedback to promote good pupil outcomes. Teachers spend hours marking student work sometimes with seemingly little impact. Indeed, feedback is the most powerful influence on progress and achievement and yet its impact remains highly variable (Carless & Boud, 2018). The delivery mode of feedback, consisting of written feedback centred around a final grade, is the most common form of feedback (Higgins, Hartley & Shelton, 2002). This method means learners are passive in the process. However, scholars frequently suggest that feedback should be a learner-centred process in which learners make sense of feedback and use it to improve the quality of future learning (Carless, 2018). Thus, to improve my own teaching practice I am interested in exploring different research informed approaches to feedback. I am acutely aware there is not one generic feedback design which will be suitable for every learner and learning situation (Boud & Molloy, 2013b). By exploring research, I hope to develop a deeper understanding of the conditions and methods which make for the most effective feedback practices."

In what ways can teachers use narratives to help address barriers to citizenship and inclusion?





"Jerome and Starkey consider that narratives are important aspects of all good pedagogy (Jerome & Sarkey, 2021). Narratives exist as an essential way for us as humans to understand and to make sense of the world in which we live (Osler and Zhu, 2011). People are driven to construct narratives through which they order their own lives whilst simultaneously making sense of the complex world around them. Texts and narratives are often used as cultural tools. They represent specific groups and their experiences. Governments for example use narratives to promote certain preferable ways of thinking or behaving, while schools use narratives to promote values or to teach History. The transmission of and appropriation of narratives has important ramifications in a globalised world. If young people are exposed to only one type narrative, often nationalistic, this can lead to tensions with others who do not fit this narrative or discontent in themselves if they do not fit the set narrative. Teachers can use narratives to great effect as a form of storytelling in education (Stake, 1995). Narratives are extremely valuable as a source of vicarious experiences from which children can learn important lessons about life (Stake, 1995)."

Likely future career is a predictor of attainment at a Key Stage 4 level - students who know what they are doing after school, perform worse at school.

Ollie Prinn - BSc, Teacher of Biology



Abstract

In 2013 Goldacre claimed that there is a huge prize to be won by teachers and schools by 'collecting better evidence about what works best, and establishing a culture where this evidence is used as a matter of routine' this will 'improve outcomes for children, and increase professional independence'(pg 7). This statement was illustrative of a shift in thought and practice amongst schools and educators at the time. Through our commitment to research engagement and evidence informed practice, Brentwood School is becoming a leader in the field of research engagement. The following quote from the 2016 Education White Paper demonstrates research engagement to be a systemic priority but also highlights some challenges.

Introduction

As a student myself, in a rural all-boys boarding school in Zululand, South Africa, I always found it particularly interesting that the student I shared a desk with in Biology was not at all interested in the subject. Life is all around us, the topics of medicine and human reproduction (to name a few) are entirely applicable to every person's daily life... How could my biology partner be so disinterested? This hypothetical question was answered in my final year of secondary schooling, where my Biology partner proudly ran onto the highly acclaimed first team rugby pitch, as the captain. During the game he went on to score all of the tries, single handedly winning the fixture and being awarded man of the match. This was a regular Saturday for him. After contextualising the different lights I had now seen my Biology partner in, it suddenly

made a lot more sense. Of course he wasn't interested in the base-pairings of DNA, or the bioaccumulation of toxins in a food chain, he was distracted by the intricacies of his training session that same afternoon, or thinking about the cup final game he will be leading his team through that same evening.

My biology partner was not interested in Biology - he was interested in Rugby. Why should he keep trying to do better in a science based subject, when he already is the best at sport which he wholeheartedly and passionately enjoys? Unfortunately, he failed Biology in secondary school. More fortunately however, it didn't matter as my biology partner is currently in the starting line up of the South African national rugby team...

During my PGCE year, I was placed at a non-selective, state school, in the comparatively underprivileged area of Whitby, a small seaside town in Northern England. Being so close to the sea, and with a strong history of being a popular tourist destination, the vast majority of the students I taught came from families where fish mongering is the main trade. Most of the students' parents worked at a fish based family-run business, and, as has been done for generations, the majority of the students helped their families run the business after school, on weekends and during the holidays.

Whilst it is a fantastic opportunity for the students to gain work experience, and valuable transferable skills at such a young age, it was undeniable that the fact the students were working at the same time as attending school was extremely distracting - students had already begun the job that they would likely continue beyond finishing their GCSE's. As such, they did not need to try their best to achieve good grades, because they did not need to prove their worth in education in order to obtain a job, since they already had one.

Similar to my Biology partner, most of the students that I taught in Whitby cared little about their Biology GCSE. This was because they inherently did not need to. As an aspiring teacher, trying tirelessly to meet Teacher Standard 1: To set high expectations which inspire, motivate and challenge pupils, became quite a challenge.

A year on, as an ECT at a selective, private school in a more affluent, less stereotypical job focused area, I have noticed aspects of this challenge in the classes that I teach at Brentwood School. Whilst the careers that the students I currently teach are less likely to be fish-oriented, in certain cases they can be equally distracting. Similar to the students in Whitby, I have observed that some students at Brentwood School are not inherently motivated by the idea that they need to try the best they can in all subjects in order toensure a great future career for themselves. This is because some of the students alreadyknow that their likely future education and subsequent career does not depend on their attainment in the subject of biology specifically, and therefore lack the motivation to try.

The most distinct difference between these two schools however, is the proportion of the class who is still open to the idea that future success begins at school:

- If the student was to do well at school, and achieve their best possible grades in all subjects, they would be able to go onto a good university.
- At a good university they would be able to achieve a good degree.
- If they achieved a good degree, they would be in the best possible situation to acquire the best possible job, whatever it may be.

It is highly encouraging to teach a class which contains students of this mindset. As will be demonstrated in the results section of this research project, not only does having this mindset make for more pleasurable teaching, it also makes for more pleasurable learning, as students with this mindset often attain higher grades. As with all classes, within all schools, students are different. This R&D Project only provides a tiny snapshot of the bigger picture which is continuously investigated by all staff of all schools worldwide.

In traditional scientific research paper style, the following applies to this research project:

Hypothesis:

Based on my previously mentioned experiences, both as a student in Zululand and a teacher in Whitby, I started this project expecting to discover that there would be a correlation between student attainment and their likely future career. Specifically, I thought it would be likely that the students who achieved the lowest in my classes did so because they lacked interested and/or motivation in the subject, and that the inherent reason as to why they are not motivated to achieve highly is because it is likely that their Biology GCSE grade will not hinder their future job prospects.

Aim:

Teachers strive to meet the government prescribed Teachers' Standards. As mentioned, specifically Teacher Standard 1: To set high expectations which inspire, motivate and challenge pupils. I am a firm believer that motivation comes from within. There is only so much that a teacher can do to inspire and motivate a year 11 student who is about to sit their Biology GCSE exam solely because they have to, and not because they want to, or it will have a drastic effect on their likely future career.

The question which arises from this project is one which cannot be answered so simply: If a student does lack the motivation to do well in a subject, because the student does already have an unrelated career lined up immediately after they finish their schooling, how should the teacher respond?

Methods

The **Questionnaire**

The Key Stage 4 (Years 9, 10 and 11 classes) that I teach Biology to were presented with the entirely optional brief questionnaire to answer regarding the following 3 questions:

- 1. Will you take A-Levels?
- 2. Will you go to University?
- 3. Do you know what you will do in your future career?

Students completed these questions via their iPads during 5 minutes of allocated time within a lesson. The students were informed that this data collection was about a research project overview of students at Brentwood School, rather than being specific to them or their progression through school from the eyes of the biology teacher.

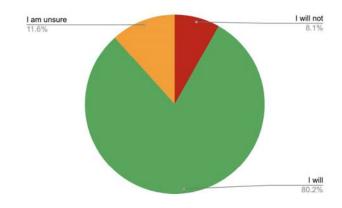
Data Generation, Handling and Statistical Analysis

The results for this questionnaire were then cross-referenced with the assessment mark grades that the students had achieved in Biology. As their Biology teacher, only the student's Biology attainment was used rather than their whole school average attainment across all subjects. Students were divided into 3 categories of average grades. The low achievers (4.25), middle achieves (6.5) and high achieves (8.55). The responses regarding the 3 aforementioned questions were then compared to their average grade category.

The entire data set (87 responses in total) was refined by selecting a range of responses by students across a range of classes (boys and girls, years 9, 10 and 11). 20 students of each of the 3 average grade categories were selected and only their data was analysed. Although anonymous, at this point of the data handling it was very difficult not to artificially select / cherry-pick responses which would distort the results of the research to be aligned to my hypothesis. This obviously had the potential to reduce the reliability of the data, by allowing bias to creep in. However, I do believe it is important to focus the investigation on the minority (20.9%) of students who did respond yes to knowing what they would do in their likely future career, to thoroughly gain insight to the aim of this investigation.

Results

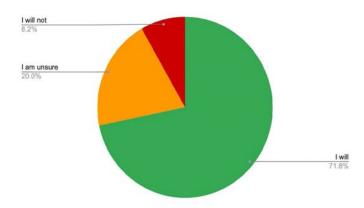
Total Survey Responses: Will you take A-Levels?



This figure demonstrates that the majority (80.2%) of all students involved in the survey are planning to take A-levels.

Note however that this does not refer to Biology A-Level specifically, despite comparing these responses to their Biology specific grades.

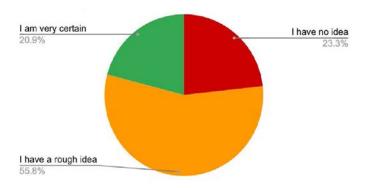
Total Survey Responses: Will you go to University?



This figure demonstrates that a similar majority (71.8%) of all students involved in the survey are planning to go to university.

Note however that the same proportion of students who are not planning on taking A-levels are also not planning on going to university.

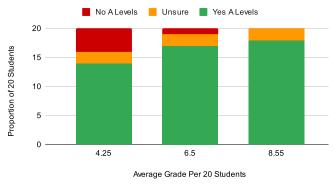
Total Survey Responses: Do you know what you will do in your future career?



This figure demonstrates that a much smaller proportion of students involved in this survey are certain about their future career compared to their future education.

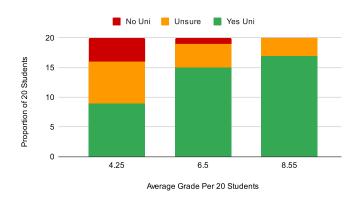
More data analysis would be required to determine what proportion of the students who are very certain of their career are also planning on partaking in further education.

Figure 1: Grade vs A-Levels



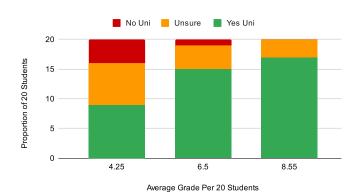
As can be seen in figure 1, students who are not planning on taking A-levels have a lower average attainment grade.

Figure 2: Grade vs University



As can be seen in figure 2, students who are not planning on going to university have a lower average attainment grade.

Figure 3: Grade vs Career



Arguably the most informative figure generated by this research project, figure 3 demonstrates a variety of different results. See the discussion section for more information.

Discussion

As can be seen in figure 3, the greatest proportion of students who are certain about their future career are in the lowest average grade category. Conversely however, the greatest proportion of students who have no idea about their future career are also in the same category. It is likely that the lowest achieving students are a combination of students who attain lower grades in Biology because the subject is irrelevant to their future career and students who attain lower grades in Biology due to being of the lower range of mixed ability science classes. Further research would be needed to expand upon and support this explanation.

As can also be seen in figure 3, students in the highest attaining average grade category are less certain about their likely future career. However, extremely interestingly, students in this category also comprise the greatest proportion of students who have a rough idea about their likely future career. The possibility that the highest-achieving students who have a rough idea about their career are intrinsically motivated by the idea that future success begins at school (see the introduction) might explain why they attain most highly. Figure 3 might also suggest that uncertainty has an effect on students' attainment in this regard- but this is beyond the scope of the research covered in this project.

Conclusion

The research in this project demonstrates that a greater proportion of lower attaining students are not planning on taking A-levels or going to university, but are most certain of their likely future career.

Conversely, the greatest proportion of the higher attaining students are planning on taking A-levels and going to university but are less certain / only have a rough idea of their likely future career.

Reflection on Hypotheses and Aims

This project has provided evidence for demonstrating that there is correlation between student attainment and their likely future career. Students who are certain about what they are doing after school, attain worse in school, since their future success is not dependent on the grades they receive at a Key Stage 4 / GCSE level.

Application to Brentwood School

With these conclusions in mind (and especially since not all subjects are set in classes at Brentwood School) this information is highly informative to subject teachers. It is important for all teachers to have an understanding of the potential career paths their students may go down. Whilst some students who are fully committed to a career may have deprioritised certain subjects, it is still the responsibility of the teacher to encourage, inspire and motivate all pupils to do well.



Scan the QR code for the full article



Can Year 10 physics students successfully incorporate and embed procedural metacognitive strategies (PMS) into their working practices in order to see an improvement in the use of strategies they use for their homework tasks?

Christopher Beadling - Head of Physics



Key words/phrases:

"Procedural Metacognition Strategies", "Focus groups, student feedback and lesson evaluation"

Abstract

Extensive research has been completed on metacognition and there are different branches which have since been investigated. The use of metacognition has had a significant impact on teaching and learning in the classroom, however because of the umbrellalike nature of the term, there can often be confusion or reluctance on using it as effectively as possible. One branch within metacognition is 'procedural metacognition' or, the use of strategies based on students' everyday working. I used a review of literature and my research to see if my students can embed given strategies to answer questions in familiar and unfamiliar situations. I will be asking if my Year 10 physics students can successfully incorporate and embed procedural metacognitive strategies into their working practices in order to see an improvement in the use of strategies they use for their homework tasks. I used focus groups, student feedback and lesson evaluations from my usual working practices to triangulate qualitative data to come to a conclusion. Based on my analysis not every student followed all of the strategies completely, however by looking at specific individual questions from student work it is clear there has been some improvement and embedding of the strategies.

Literature review:

Section 3.1: Defining metacognition

- Flavell's (1979) work on metacognition is influential, with many papers referencing it.
- Definition of metacognition as 'thinking about thinking' or 'learning about learning.'
- · Young children have some metacognitive ability.
- Metacognition is a fuzzy concept, but researchers propose more specific terms.
- Subsets of metacognition include Theory of Mind, knowledge about memory, and procedural metamemory.

Section 3.2: Benefits of enhancing procedural metacognition

- Enhancing strategies helps students be successful with homework and independent tasks.
- Explicit instruction of metacognitive skills is necessary.
- Students need help with planning, monitoring, and evaluating their learning.
- Metacognition is divided into preparing, selecting, monitoring, orchestrating, and evaluating learning.

Section 3.3: Barriers to enhancing metacognition

- Barriers include formal examinations, coursework obligations, time management, and increased workload.
- Procedural metacognition can help students cope with these barriers.
- Metacognition is not a panacea for all learning problems.
- Metacognition develops slowly and is difficult to teach.
- Teachers should incorporate strategy instruction and metacognitive information in daily instruction.

References: Flavell (1979), Roebers and Feurer (2016), Mahdavi (2014), Proust (2019), Schneider and Lockl (2008), Kuhn (2000), Macaro (2001), Anderson (2008), Ben-David and Orion (2013), Vos (2001), Joyner and Kurtz-Costes (1997).

Methodology

When conducting the focus group to discover and discuss what students already knew about PMS, I could have asked the entire class to complete a questionnaire.

When Denscombe (2017) discusses using questionnaires, there is no guarantee that there will be a 100% response rate. Instead, through discussion with my supervisor and reading Denscombe (2017) I decided a focus group was more appropriate in order to give me an idea of the strategies students already used, or not. He recommended exploratory sampling as the most suitable for small qualitative research studies. I propose that a focus group is a form of exploratory sampling and I also believe this was suitable due to the fact that I was looking for "insights and information". As Denscombe (2017) says, "it is not always necessary to get an accurate cross-section of the population.". Therefore, for my focus groups I asked for volunteers to take part; I felt this would allow students' responses to be more truthful and unforced.

Using lessons evaluations was a conscious decision due to the Covid-19 barriers that were prevalent. It meant that I could reflect on what went well and what needed to be changed throughout the research. It was not possible to conduct one to one interviews after each homework task and/or focus groups each time.



Results

Looking at the boy's and the girl's group separately, the girls have, on average, achieved better in the third homework overall. This would suggest that the girls have taken on board the strategies and the fact that they have perhaps been more embedded in their current working practices.

It appears that both groups performed better on the 'calculation' questions, and (according to the feedback from my students) they found these questions easier. I propose this can also be attributed to the fact that they saw the strategy for these styles of questions was more helpful in helping other students to be successful.

I suggest there are several reasons why a third of students did not show any improvement:

- 1. Lack of effort; The end of homework 3 consisted of a 4 mark 'explain' question and students have often complained about homework being too long or too difficult (despite the efforts I made to ensure there was a fair mix of questions in this homework task).
- 2. Fatigue; Students mentioned that they were tired towards the end of the term. This cohort had been through two lockdowns and therefore two periods of remote learning. Even though the homework tasks had been based on work completed back in class.
- 3. Lack of detail; Despite the specific strategies given to students and also the direct instruction (Roebers and Feurer, 2016) to consider the two strategies from homework 1 and 2, some students either ignored or forgot the instruction (see Figure 2 below).

Conclusions

It is pleasing to note that overall (quantitatively) approximately two thirds of the group have shown some improvement in their approach to the homework tasks I had prepared. Unfortunately, not every student uploaded a copy of their exercise books to show evidence of the strategies I'd asked them to use.



Scan the QR code for the full article

Is intrinsic or extrinsic motivation to study Medicine the main driver for prospective medical students?

Jan O'Connell - Head of Careers and MDV



Key words/phrases:

"Identifying motivation types can assist staff in supporting students and encouraging a shift towards intrinsic motivation if necessary"

Abstract

The motivation that drives students to undertake a career in Medicine has been looked at in a number of studies described in the literature review. This study uses a basic questionnaire to discover whether a volunteer sample of 38 Sixth Form students are intrinsically or extrinsically driven to enter medical school as this may affect how likely they are to embark upon speciality training posts at the end of their FY2 year and to remain within the profession long-term. Using descriptive statistics only, the findings support the research hypothesis that more Sixth Form Students will report intrinsic motivation rather than extrinsic motivation to study Medicine, therefore the null hypothesis can be rejected.

Introduction: The British Medical Association suggests that the number of doctors in England has fallen to 2.8 per 1000 people, which is lower than the EU average of 3.7 (BMA, 2021). The BMA (2021) states that the shortage of doctors has now risen to over 50,000 as more hospital doctors and GPs left the profession in 2020 than ever before. The Royal College of Surgeons (2020) report that, despite the opening of five new medical schools and a rise in applications for places, more senior doctors are taking early retirement, career breaks are rising and the number of doctors who

immediately take up speciality training posts at the end of foundation year 2 (FY2) is continuing to drop. Using self-report measures, this short research paper aims to investigate whether the motivation for Sixth Form students at Brentwood School to study Medicine is intrinsic or extrinsic as those who are intrinsically driven are more likely to enter speciality training posts at the end of FY2, which may be an indicator of future retention and progression rates in the profession. If medical schools possess this information, they may be able to incorporate it into their admissions process to ensure that they select students who are not just the most academically able but also the most likely to continue in their medical career. This is very important as BBC News (2016) states that the BMA estimates the cost of training a doctor to FY2 level to be approximately £300,000 and this will rise annually.

Literature review:

- Motivation in Medicine: Doctors are motivated by various factors, including a desire to help others, intellectual challenge, and influence from family and friends. Motivation can be categorized as intrinsic or extrinsic based on Deci and Ryan's Self-Determination Theory.
- 2. Intrinsic Motivation and Need for Cognition: Millan et al (2005) found that both male and female medical students exhibit high levels of intrinsic motivation, indicating their propensity to learn and assimilate knowledge. The need for cognition, an intrinsic attribute, is suggested to be important for medical students as it enables them to process information systematically and discern relevant information.
- Intrinsic Motivation and Academic Performance: Studies by Wu et al (2020), Fan and Williams (2010), and Walker et al (2006) support the notion that intrinsic motivation in studying Medicine is associated with higher academic performance, learning engagement, and self-efficacy. Conversely, extrinsic motivation does not seem to correlate with academic performance.

- 4. Gender and Cultural Differences: Research findings on intrinsic and extrinsic motivation among medical students show discrepancies related to gender and culture. While Millan et al (2005) found high intrinsic motivation in both male and female medical students, Wu et al (2020) found that males report higher intrinsic motivation but lower academic performance than females. Kusurkar et al (2013) suggest that cultural differences might influence intrinsic motivation in medical education settings, although a study by Clayton (2016) found similar motivation levels between UK and Ghanaian medical students.
- 5. Motivation and Career Aspirations: McManus et al (2006) investigated the motivations of potential medical students using the Medical Situations Questionnaire. The study found weak correlations between motivations (such as indispensability, helping people, need for respect, and love of science) and participants' proposed fields of Medicine. It suggests that these motivations are found across various medical specialties rather than specific ones. The questionnaire's usefulness was questioned, and it was suggested that investigating the need for cognition might be a better means of selecting suitable future doctors.
- 6. Encouraging Intrinsic Motivation: Given the varied findings on motivation, there is a need to explore whether intrinsic motivation is the main driver to study Medicine in England and whether medical schools can foster a shift towards intrinsic motivation. Foong et al (2018) propose that promoting intrinsic motivation can improve academic performance and engagement, potentially leading to direct entry into specialty training at the end of Foundation Year 2 (FY2) and addressing the doctor shortage in England.
- 7. Importance of Motivation in Student Support: The study at Brentwood School focuses on Sixth Form students and aims to understand their motivations to study Medicine. Identifying motivation types can assist staff in supporting students and encouraging a shift towards intrinsic motivation if necessary.

Method

A survey was conducted among Lower Sixth and Upper Sixth students who expressed an interest in studying Medicine, Dentistry, or Veterinary Science. The survey aimed to understand their motivation for pursuing these fields. A total of 35 responses were received from students planning to study Medicine through direct entry or by taking an alternative route. The participants completed a Likert Scale questionnaire consisting of seven questions to assess

the importance of various factors influencing their decision. Additionally, they were asked about the influence of having a family member in healthcare and the potential impact of personal loss on their decision.

Results

The results suggest that most participants are intrinsically motivated to study Medicine as traits such as Interest in science, Problem solving and Helping people are cited by 80-90% of students. The extrinsic factor of Parental pressure only has any effect on 20% of students. Extrinsic factors such as money and job security are important but not as important as the intrinsic factors. It is unsurprising in today's economy, which has been highly affected by the Covid-19 pandemic that these two factors have some effect and that job security is seen as more important than money. Surprisingly, with doctors receiving much media praise, Respect was not seen as an important factor in the career choice of the participants.

Conclusions:

The study conducted among Sixth Form students at Brentwood School suggests that there is a prevalence of intrinsic motivation rather than extrinsic motivation among students who aspire to study Medicine. Although inferential statistics were not used, the descriptive statistics obtained from the Google Form responses provide face validity and serve as a foundation for further comprehensive research. The findings suggest that the students' intrinsic motivation bodes well for their success in Medical School and future careers, especially considering their strong interest in science and problem-solving. It would be worthwhile to assess the students' scores on the Need for Cognition Scale to gain more insight. This study could also verify the associations between intrinsic motivation and academic performance highlighted by Wu et al. (2020) and the cultural influences on intrinsic motivation among females proposed by Kusurkar et al. (2013). If the significance of intrinsic motivation in choosing a medical career is established, schools could consider incorporating strategies to foster intrinsic motivation, as suggested by Foong et al. (2018)



Scan the QR code for the full article

Applying Paulo Freire's thinking to teaching of Islam at Key Stage 3

Bruce Clements



Key quote:

Before we began this course, did you ever think of inequality or injustice in Britain?

"Before this sequence of lesson, I had learnt a little bit about inequality or injustice in Britain in my Well-being lessons and the big conversation days. However, I did not realise how much inequality affected Britain and the wider world. Doing these lessons has really opened my eyes and I have seen just how kind, accepting and incredible Islam is as a religion."

- Key Stage 3 Student

Introduction

The need for change

Islamic instruction during Key Stage 3 is a common feature in most secondary schools, typically offering a concise historical overview, exploring Islamic rituals, and predominantly focusing on descriptive content, occasionally including comparative examinations with other religions. This creates a 'knowledge-rich, but discussion-light' culture of study; and while it would be easy to defend this, it is in need of revision for an educational culture such as the Brentwood Learner Profile, which promotes resilience, problem-solving and reflection.

Challenges teaching Islam and a solution

Teaching Islam poses certain cultural problems for many TP teachers.

- Historically the materials reflect only Sunni (85% of the world population), not Shia (14% of the world population) or Sufi (1% of the world's population) values, they also are often inaccurate or sometimes involve transliteration patterns which are no longer accepted.
- 2. The materials often do not discuss Quranic or Hadith-based issues beyond a very simplistic level.
- 3. Since 9/11, the study of Islam has become very politicised. Teaching any world faith involves cultural and social sensitivity, but the treatment of Islam in the media and in popular culture has created levels of tension which need to be addressed in a courageous and respectful manner.

Paulo Friere and a new academic environment

One way in which this can be addressed is by changing the classroom dynamics and employing the educational insights from the Brazilian educationalist Paulo Freire. He argued that all active education (in all cultures) should be seen as political and that the curriculum usually reflects the oppressors, not the oppressed. The teacher's job is to help students realise patterns of oppression, inadequacy and repression in their own society and to afford them the tools with which they can make progress. As Ira Shor observed: "A Freirean pedagogy is participatory, critical, values-oriented, multicultural, student-centered, experiential, research-minded, and interdisciplinary."

Yet, above all of these, it is a 'problem posing' environment. As Freire said: "I am interested in a pedagogy of questions rather than one of answers." It is important to insist on the term 'problem-posing' as opposed to problem setting. Problem posing reminds us that the teacher's job is to suggest, not to be the automatic answer giver and the guardian of knowledge. This is a deliberate move away from the role of teacher as expert to the idea of teacher as facilitator. This model of education was remarkably effective in

Brazil in the 1960s and was extensively studied as 'Freirean education' in the US mid to late 80s. Due to its political stance, it has declined in popularity and prominence but given the increased politicization of the discussion concerning Black Lives Matter, #metoo, the legacy of slavery debate, post truth, climate change denial, fake news, vaccination contraversy etc, education has never been so political and arguably Freire's theories deserve another look.

Method

A series of lesson were then developed relating to the five pillars of Islam. The lessons contained the same sequence of activities concerned with problemposing. Using this five stage plan, the following stages were developed for the teaching of Islam:

- Teacher overview of the key topic (establishing a baseline of knowledge)
- Students reflect on how this would impact society
- Students reflect on how they might or might not see this in modern UK society.
- Students reflect on why this problem occurs and discuss the severity of the problem.
- Students strategize a solution and anticipate how school, Brentwood and British life could be different.

Highlights

The feedback was uniformly positive with only one dissenting voice (AK) who enjoyed the experience but preferred the noral way of studying religion. Here are four unexpected bonuses from the research.

Students who defined themselves as 'conventional Essex' were moved - and sometimes angered by their culture of privilege (racial, economic and cultural) which empowered them and disempowered others. Solutions promoting social cohesion like community and youth groups, and especially the Scouts, were discussed. Many felt a sense of envy when discussing homogeneity in Islam.

Some students found in their own ethnic identity practices and values which they had previously seen as tending towards insignificance becoming very important and empowering.

Islamic students found a great sense of pride and confidence. Their input placed them very clearly in the centre of the class and the heart of the discussions. Their narratives of emigration and challenge were very powerful and gripped the class.

Students were able to reflect on their own society using ideas from Biology. One idea was the idea of CCD (Colony Collapse Disorder) - an idea from beekeeping to describe the damage an overly keen focus on money has on society.

Students became more aware of the political nature of pronouns - how accurate and useful is this 'we' which we so confidently use in conversation? As awareness grew of diversity in Islam, some students became more sensitive about the use of 'they.'

Conclusion

I was genuinely surprised to see how the change in ordering the sequence of activities created room for reflection. On one level, I thought that simply shuffling the order of activities would produce something, I never expected it to be so potent. I was also startled and impressed by how maturely and thoughtfully the students responded to the ethical problems posed and how this created an atmosphere where subsequent written work could be far more successfully attempted.



Can the lexicogrammatical system support the teaching of translation into Classical Languages?

Jo Gray - Teacher of Classics



Key words/phrases:Chunks/Comprehensible Input

Abstract

Teaching pupils of a foreign language to construct sentences in the target language with confidence is one of the most challenging aspects of language teaching: it is all the more difficult in Classical Languages because pupils often find the task very difficult and/or do not see the point of translating English into Latin/Greek. In my research this year, I decided to investigate how the lexicogrammatical technique might be employed to make the challenge more accessible..

Introduction

On 16th October 2021, I attended the (virtual) Cambridge Schools Classics Project Conference 2021, which was subtitled "Mind the Gap'. One of the Sessions was entitled 'Learning Latin through Lexicogrammar' and was led by Henry Lee. Although I was aware of the existence of lexicogrammar, it had never occurred to me that it could be used to help in the teaching of Classical Languages, and I thought it would be interesting to see if/how it could be used, specifically in KS3 Latin and Greek (I had two Yr 8 Latin classes and one Yr 9 Greek class).

Literature review:

Henry Lee's session led me to investigate the work of Gianfranco Conti, a teacher of Modern Foreign Languages, with over 30 years experience, and holder of a PhD in Applied Linguistics (The Language Gym, 2022). He has written many journals and books, but I focussed my research on two articles published in 2018: How I teach lexicogrammar Parts 1 & 2.

What is lexicogrammar?

Essentially, a lexicogrammar gives pupils the building blocks (chunks) with which to construct their own sentences: see Fig. 1 below



Figure 1 (Conti, 2018a)

In this example, students have been provided with the components to form a sentence where they can depict the attire of an individual in either the first or third person, including a placement fronted adverbial and an adjective to describe their clothing. Pupils merely have to take one element out of each block to construct a correct sentence: e.g. Souvent je porte une chemise noire.

Using this lexicogrammar correctly can help eliminate errors - in this case, of gender and/or adjectival agreement (une chemise noire, not un chemise noir). It allows pupils to use this comprehensible input to create their own work. Conti states that if we are aiming to teach second language (L2) pupils to complete a written

task in the target language "... we must provide students with comprehensible input which contains language they are largely familiar with" and that students must be given "input which is as 'authentic' as possible" (ibid, 2018b).

Conti's lexicogrammatical approach can still be used at Key Stage 3 and possibly even Key Stage 4 (where the optional prose composition element is very basic, requiring a very limited range of vocabulary and grammar).

Methodology

Currently, my innovations are theoretical, rather than practical; I did not have the time to put my theories into practice with a specific teaching group in the year 2021-2022, though I did create a couple of lexicogrammars aimed at my Year 9 Greek group.

The textbook we use (Greek to GCSE Part One by John Taylor) employs a strongly grammatical approach. At the introduction of each new piece of grammar, there is an exercise of Greek into English sentences and then often an exercise of similar sentences from English into Greek. Observation over several years of teaching from this textbook shows that many pupils find the English into Greek sentences almost impossible to complete without significant scaffolding; lexicogrammar seemed to provide the ideal form of comprehensible input scaffolding that might assist pupils.

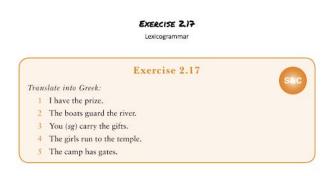
My first attempt at a lexicogrammar was created shortly after the CSCP conference in October 2021. It is a representation of the basic grammar of Chapter 1 of Greek to GCSE Part One (providing chunks of the nominative/verb/accusative): see Fig. 2 below:

GREEK CHAPTER ONE nominative and accusative/1st and 2nd Declension

| Nominative Article | Nominative Noun | Negative | Verb | Accusative Article | Accusative Noun |
|-----------------------|---|---------------|--|---------------------------------------|---|
| [ή] | βοη βουλη γη ἐπιστολη κοφη κωμη πυλη φωνη | | παυει άγει | [την] | βοην βουλην γην ἐπιστολην κοφην κωμην πυλην φωνην |
| ή εἰι ή νι ή τι | | [οὐ] [οὐκ] | άκουει βαινει γραφει διδασκει | την είρηνην την νικην την τιμην | |
| [ó] | άγγελος διδασκαλος δουλος θεος ίππος ξενος λογος ποταμος στρατηγος στρατος συμμαχος | | - 13 | [vov] | άγγελον διδασκαλον δουλον θεον ίππον ξενον λογον ποταμον στοατηγον συμαχον |

Although it covers all the necessary grammar, it is clear to me that it is too big and unwieldy to be used to support the learning of those who struggle with English into Greek translation.

Therefore my next focus was on creating a lexicogrammar for a specific exercise. This enables me to focus much more on the specific vocabulary and grammar required by the exercise: see Fig. 3 below



Use the table below to help you complete the translations above:

| Nominative Article | Nominative Noun | Preposition | Accusative Article | Accusative Noun | Verb |
|-----------------------|--------------------|-------------|-----------------------|--------------------|--------------------------|
| αί | κωρ-αι | προς | τα | δωφ-α | έχ-ω φερ-εις έχ-ει |
| τα | πλοι-α | | το | άθλ-ον | |
| το | στρατοπεδ-ον | | το | ίερ-ον | φυλασσ-ει |
| | | - | τον | ποταμ-ον | τρεχ-ουσιν |
| | | | | πυλ-ας | |

Figure 3

I have also compiled a comprehensive vocabulary list for this exercise; I would give both the lexicogrammar and vocab list to pupils to assist them in their translations.

Conclusion

It seems likely that scaffolding/comprehensible input in the form of lexicogrammar will provide a framework to enable pupils to compose sentences in the target language with more confidence. I intend to conduct a practical experiment in the use of lexicogrammars in the Academic Year 2022-2023 with a new Yr 9 Greek group and possibly extend it into the teaching of my parallel Yr 7 Latin classes.

Next steps

It is possible that lexicogrammars could assist with the teaching of English into Latin at GCSE; the required vocab and grammar for this optional part of the exam is limited enough to allow scope for the use of a lexicogrammar.

References:

Conti, G., 2018a. Patterns First – How I teach lexicogrammar (Part 1). [online] The Language Gym. Available at: https://gianfrancoconti.com/2018/07/30/patterns-first-how-i-teach-lexicogrammar-part-1/ [Accessed 30 August 2022].

Conti, G., 2018b. How I teach lexicogrammar (Part 2) – The 8 tenets of Extensive Processing Instruction in the novice-to-intermediate classroom. [online] The Language Gym. Available at: https://gianfrancoconti.com/2018/12/05/how-i-teach-lexicogrammar-part-2-the-8-tenets-of-extensive-processing-instruction-in-the-novice-to-intermediate-classroom/> [Accessed 30 August 2022].

The Language Gym. 2022. The Language Gym. [online] Available at: https://gianfrancoconti.com/ [Accessed 30 August 2022].





Supporting pupils with SEND to access learning, via scaffolding.

Louise Bullock - PGCE essay, Brentwood Preparatory School



In my experience as a Key Stage 2 Modern Foreign Languages (MFL) teacher, the fact that a pupil has a special educational need or disability (SEND) in no way precludes them from finding great enjoyment and success in learning another language, given the right support. In this essay, I will consider how scaffolding can support children to learn languages and how theorists such as Vygotsky and Rosenshine have influenced my day to day practice with primary-aged language learners. It is important to note that the needs of SEND pupils are as diverse and complex as the children themselves and two pupils with the same diagnosis may still have different strengths and weaknesses. Any attempt to discuss learners' needs will invariably lead to generalisations and I have therefore focused this essay on the needs of learners with dyslexia and literacy difficulties as well as pupils with autistic spectrum disorder (ASD) since these are the main learning difficulties that I encounter amongst my pupils.

Pupils receiving SEN support, defined as those identified as having special educational needs, but who do not have an Education, Health and Care Plan, make up approximately 12% of the primary school population (Skipp and Hopwood, 2017). Despite the revised 2015 SEND Code of Practice, research from the Educational Endowment Foundation in 2017 showed that there was a larger attainment gap for this sizeable group than any other (EEF, 2017). Given the statutory duty for 'all pupils to have access to a broad

and balanced curriculum,' (Department for Education and Department of Health 2015, p94), including those with additional needs, it is of vital importance that the considerations needed to support them are taken into account when planning lessons. The Code of Practice sets out the expectation that the needs of almost all learners can be met through appropriate support, including help to take part in learning activities and that this support should be constantly assessed and reviewed through the use of a graduated approach in the assess, plan, do, review cycle. It is therefore clear that 'high quality teaching strategies' (Department for Education and Department of Health 2015, p25), including scaffolding, lie at the heart of teachers' provision for the needs of these learners.

Difficulties faced by SEND pupils in MFL lessons, with possible good practice include:

- Retrieval and retention of information: Many SEND learners, including those with dyslexia, struggle with retrieving and retaining information in their first language. This difficulty extends to the learning and usage of new vocabulary in language lessons. The knowledge-rich nature of the MFL (Modern Foreign Language) curriculum demands constant retrieval of stored information, which can be challenging for SEND pupils.
- Working memory limitations: Learning a language places a significant load on working memory, which is often limited in pupils with dyslexia and other SEND conditions. Efficient retrieval of stored information frees up working memory capacity for processing new knowledge. Regular retrieval practice and spaced learning are employed to address this difficulty.
- Phonological processing: Pupils with dyslexia often have difficulties distinguishing sounds and making sound/letter correspondences in reading and writing. This difficulty can affect language learning, particularly in languages like English that have less phonetic transparency. However, it may be

- less problematic in languages like Spanish or Latin, which have a closer grapheme-phoneme match.
- 4. Aural skills and listening comprehension: Modern Foreign Languages lessons tend to place greater demands on pupils' aural skills compared to other subjects. This can pose challenges for SEND pupils, especially those with lower processing speed or difficulties processing auditory information. Scaffolded listening activities, such as focusing on key words or using tasks to engage attention, are used to mitigate these difficulties.
- 5. Reading and writing skills: SEND learners, especially those with specific literacy difficulties, may require scaffolding and support in reading and writing in both their first and second languages. Providing shorter texts, glossaries, and accompanying images can help with comprehension and translation. Oral rehearsal is emphasized before committing to writing, and alternative methods of recording knowledge, such as filming performances, are used.
- 6. Social and emotional difficulties: Pupils with social and emotional difficulties may find it challenging to participate in Modern Foreign Languages lessons due to elevated noise levels and the need to take risks, such as speaking in front of peers. Creating a safe and comfortable learning environment, explicit modeling, careful pairing of talk partners, and peer collaboration are employed as scaffolding strategies to support these learners.

7. Gradual withdrawal of scaffolding: While scaffolding is initially provided to support SEND learners, it is important to gradually withdraw support to prevent over reliance. Tasks are designed to be adaptable and open-ended, allowing learners to choose their level of complexity and self-assess their own knowledge.

Overall, the I wish to emphasizes the importance of scaffolding techniques, such as retrieval practice, visual stimuli, concrete objects, gesture and mime, games, supportive resources, and pair activities, to address the difficulties faced by SEND pupils in language learning. These strategies aim to promote engagement, confidence, and success for all learners, regardless of their abilities.



Scan the QR code for the full article



'It's one or the other': Towards a Pedagogic Continuum Within Physical Education.

Ben Crickmay - Teacher of PE and Games



Key words/phrases:Physical Education, Pedagogy,
Habitus, Linear, Nonlinear

Abstract

Purpose: This paper was undertaken in response to the growing concerns surrounding Non-Linear Pedagogy (NLP) implementation. A unique opportunity was presented to key internal stakeholders to share their assumptions of and experiences with PE, with the purpose of better understanding the deep-rooted barriers to pedagogic change. It was hoped these honest and robust insights would paint a clearer picture of the current pedagogic landscape, placing this paper and future research in a position to establish a realistic and 'long lasting' pedagogic solution.

Methods

Participants: Purposive criterion-based sampling guided the recruitment process, with twelve key internal stakeholders holding the necessary experience, qualifications, and insight to engage in this study, evenly split between teachers, SLT members and pupils.

Research design: This paper was influenced by the overarching assumptions of the social constructivist paradigm, suitably represented through a qualitative methodological design. Data collection: Twelve in-depth semi-structured interviews guided the research process, averaging fifty minutes in duration. Data analysis: Participant responses were subjected to inductive content analysis.

Findings

The 'usability' of NLP remains an issue, with existing guidance scarce, inaccessible, and far removed from the realities of the role. Research's failure to connect with its intended audience has resulted in a limited understanding of NLP's key principles and poor or inaccurate implementation, lacking the expert subject knowledge to support unexpected learner outcomes. The challenges associated with NLP are no longer just practical, with socio-political factors 'regulating' the pedagogical approaches 'readily' available to practitioners. Teaching is a social process, with control, respect, and competence, communally agreed characteristics of the 'teaching habitus,' displayed more compellingly through teacher-led approaches, normalised, and recycled through daily interactions and observations. The progress-driven incentives underpinning assessment policy further discourage the use of NLP, with linear approaches clear 'start' and 'end' points making progress easier to evidence and assess across condensed six-week schemes of work, better suited to half termly data entry requirements. With NLP's path blocked, an alternative solution opposing the existing 'one or the other mentality' was proposed. Under this blueprint, pedagogy was viewed as a far-left to far-right continuum, using approaches progressively and interchangeably to best suit learner needs, departmental outcomes, and the wider context in which learning takes place.

Conclusion

The initial findings outlined in this paper served to reinforce what is already known, with the practicalities of NLP, despite recent guidance (Chow et al., 2021), proving difficult to accurately implement beyond 'opening night'. There is an obvious need to review how guidance is presented, with NLP's existing wounds arguably self-inflicted, siding with complex academic language despite its 'inaccessibility' to

those in which it is intended. Practitioners become reliant on their ability to interpret theoretical concepts, encouraging distorted and inaccurate 'versions' of NLP to enter the classroom. Even the victories of those taking the time to understand NLP are short-lived, coming unstuck when tasked with consistently designing practices reflecting theoretical principles.

Consequently, experienced teachers have made the call for more 'step-by-step' guidance, highlighting an appetite for pedagogic change, but more tellingly an unease with NLP's 'non-directional' approach.

With no one direction in which learning can go, practitioners are required to recognise and respond to learners' unique movement solutions as they emerge, removing the safety blanket of pre-planned task progressions/simplifications. Thus, traditional approaches remain the default choice, with clear compartmentalised learning outcomes, allowing teachers to foresee misconceptions and plan logical progressions ahead of time. Again, traditional approaches seem better suited to the exhaustive list of activities 'thrown' on the curriculum, with NLP requiring a level of sport-specific expertise that is not easily obtained, nor transferred to other contexts. Even teachers from coaching/playing backgrounds withholding the necessary subject knowledge, struggled to apply NLP within a school setting, suggesting in its current form, it may be better suited to elite sporting environments.

Gaining insight into the unique and highly personal outcomes underpinning practitioners' PE curricula highlighted that NLP's 'movement' based intentions may not always be the 'best' fit. Research must now view NLP as just one of many pedagogic tools in practitioners' teaching toolkit, moving away from sending PE to war with decontextualized pedagogy and towards establishing nuanced approaches suited to the individual context. The challenges associated with NLP are no longer just practical, with socio-political factors 'regulating' the pedagogical approaches 'readily' available to practitioners. Teaching is a social process, with daily interactions, observations, and experiences guiding the shared and communally accepted assumptions and behaviours. The socially constructed teaching habitus, valorising control, respect, and competence is a hidden barrier to NLP implementation, coercing practitioners to 'revert' to teacher-led approaches to assert their position in the mass. Expert practitioners attach particular importance to control, with chaos often being attributed to inexperience. Practitioners become reluctant to experiment with 'messy' NLP, more inclined to compartmentalise

learning through highly structured practices, setting clear outcomes, boundaries, and expectations.

Practitioners' potential to gain respect remains dependent on their ability to demonstrate 'competence,' perceived and perhaps misinterpreted by SLT and pupils as imparting expert knowledge to consolidate learning.

With little kudos to be gained from 'task is the teacher' models, practitioners are forced to take centre stage, regularly interjecting, and pausing learning to evidence their impact on progress. With NLP's subject knowledge requirements inaccessible for most, little choice is left but to adopt traditional learning designs in which outcomes are pre-planned and progressed through preempted teacher involvement. Teachers with previous high-level playing experience have an advantage, with developed 'practical sense' behaviours gaining instant respect from learners. However, despite withholding the experiential knowledge and situational awareness to design constraint-led practices representative of the game, 'replicas' of sessions 'passed on' from highly regarded former coaches permeate the field. Research must prioritise breaking this cycle of copy and pasted behaviours, establishing CPD incentives supporting practitioners to identify their own pedagogic identity.

More worryingly, the teaching habitus is further normalised, validated and recycled through rigid lesson observation criteria, pressuring practitioners to model valorised behaviours, restricting pedagogic freedom. Future research needs to use the teaching habitus, exploring how the shared assumptions guiding practice can be altered to welcome new and alternative approaches.

The wider political constraints placed on teachers are vast, with progress-driven incentives, directed by SLT, presenting an unrealistic time frame for worthwhile progress to occur. Tasked with evidencing progress each lesson, teachers lean towards learning designs with clear start and end points, assessing performers against model performance to encourage linear learning trajectories. This pressure to quickly demonstrate progress makes NLP implementation almost impossible. Here learning trajectories are different and progress slower, with resulting individual learner outcomes proving difficult to compare, rank and grade as no 'model' technique exists.

Wider assessment policy further ties practitioners' hands, with half termly data drops controlling what is and is not possible within PE. With a tight turnaround to teach, assess and grade progress, learning is condensed into six-week schemes of work, delivered through isolated practices allowing essential rules,

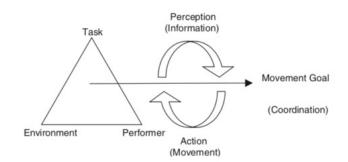
knowledge(s) and skills to be developed. With pupils subjected to NLP arriving at individualised movement solutions later, with no definite time frame, existing schemes of work simply are not long enough. This problem is escalated by PE's broad curriculum, with departments opting for activity breadth over depth, making it difficult to scrape beneath the surface. Assessing multiple sports in restricted timeframes has encouraged the use of activity-specific grade descriptors, with their focus on performance generating fluctuating and irrelevant tracking grades. Lesson time and frequency deterred practitioners from investing in alternative pedagogy, with motivations for and against pedagogy requiring further exploration in an educational setting.

Delving beyond the practical has inspired the construction of an alternative pedagogy, purposely designed to reflect the realities of the role, whilst conforming to the wider socio-political constraints placed on teachers. Under this blueprint, pedagogy is viewed as part of a wider far-left to far-right continuum, with departmental aims influencing the optimal 'blend' of traditional and alternative approaches. For individualised and meaningful pedagogy to surface, departmental aims must reflect the broader 'why' underpinning curriculum design, with resulting primary outcomes dictating how and when pedagogy is interchanged.

Whilst bespoke 'hybrid' designs can be viewed as an idealistic long-term solution, practitioners must first gain the knowledge and skills to confidently recognise, apply, and personalise key theoretical principles. Practitioners' call for more 'step-by-step' guidance has been met in the form of a universal intervention, in which prescribed learning designs systematically move from one end of the pedagogic continuum to the other (from left to right) at a speed suited to pupils' developmental needs.

An alliance to isolated practices, developing an understanding of core rules and skills, in year seven, lays the foundations for problem-based games, associated with the far-right, to be accessed in subsequent years, with most extreme pedagogy introduced in year ten when pupils are most cognitively and athletically developed. Years eight and nine support this transition, with early lessons in this phase consistently concluding with problem orientated games to consolidate skill-learning, gradually progressing to a constraint-led whole-part-whole approach. This gradual transition provides both pupils and practitioners with the time to adjust to their altered role in the learning process.

With wider policy unlikely to change overnight, the concept of an outcome-based curriculum has never been more topical, advocated as a realistic means of overcoming existing barriers to change. Clearly defined outcomes add a refreshing 'focus', with the resulting curriculum 'map' consisting of a narrowed pool of relevant activities, consistent across the programme of study. This removes the pressure to 'cram' knowledge into one six-week block, as activities are revisited and progressed at each developmental stage. Further compartmentalising these outcomes into progressive interlinking sub-outcomes tailored to each phase [i.e. (1) core skills and rules, 2) skill selection and 3) skill manipulation], and consistent with each activity, provides pupils with more time to access, develop and apply skill outcomes, with task simplifications and progressions logically linked to prior and future learning. Subjecting performers to the same outcomesbased grade descriptors across all activities removes fluctuating 'performance-centred' grades and provides a truer reflection of pupils' rounded progress. As evidence suggests, designing a theoretical intervention does not guarantee impact, with further research efforts required to ensure momentum gained is not lost. Research cannot continue to place all its eggs in one basket and instead must continue to explore hybrid solutions better suited to the pedagogic landscape. Next steps for this paper involve assessing its applicability to all educational contexts. This may take shape in the form of a pilot study, with resulting recommendations used to 'reframe' the knowledge guiding this intervention. Once re-contextualised, the intervention should be subjected to prolonged implementation, analysing its 'real life' impact on practice over time.





Scan the QR code for the full article



The impact of formative assessment in the classroom

PGCE essay - Yvonne Calo



Key words/phrases:

'...attention to minute-by-minute and day-to-day formative assessment is likely to have the biggest impact on student outcomes' Dylan William, 2017

"When the cook tastes the soup, that's formative; when the guests taste the soup, that's summative". Scriven, 1991

Introduction

When I started my journey as a teacher, I was confused about the terminology used in the educational literature.

First of all, we have to distinguish between evaluation and assessment. The assessment identifies both the progress expected in the evaluation process and how a performance or result can be enhanced by highlighting the strengths and the areas for improvement. Whilst the evaluation focuses on the current level of a pupil/ class/school, it does not take into account why/how a certain level has been achieved and not another as well as considering the future actions that can be taken. In other words, the assessment focuses on learning, teaching, and results, and provides important feedback to improve both learning and teaching. It constitutes an interactive process (between teachers and students) that shows how and what students have learned. The collection of this information is useful to make appropriate changes in the learning environment and to enhance students' learning (Angelo, Cross, 1993).

Therefore, the assessment requires collecting evidence on the performance of pupils in the learning phase

over a less or longer period, while the evaluation intervenes to assign a grade/level for a specific task. The assessment can be compared to a "journey", while the evaluation to a "snapshot" of this journey. The assessment is diagnostic since areas for improvement are identified; evaluation is judgemental, it serves to quantify giving grades, scores (Angelo, Cross, 1993).

In fact, alongside evaluation and assessment, we find the distinction between two kinds of assessment: formative and summative.

The term formative is generally used to describe the process of improving students' abilities/ skills/knowledge, while summative describes a process to make a decision on an object to be evaluated. So summative assessment is closer to what earlier we called evaluation.

I have to admit that in the first couple of months of teaching I was not aware of the distinction between formative and summative assessments and my focus was more on trying to make a lesson clear or manage the behaviour of my classes rather than using formative assessments to engage my pupils and improve their understanding. However, discussions with more experienced colleagues, books, and articles on the subject gave me ideas on activities put into practice. The impact and the results have been surprisingly positive; I noticed that the students were more participative and also achieved better results in end-of-topic tests.

Formative assessment strategies and activities

- "Muddiest Point": This strategy involves asking students to identify the concept or explanation from a lesson that they found least clear. In the case of my physics class, when teaching topics like current, voltage, magnetic field, or radioactive decay, students were asked to write down what they found to be the least clear explanation. This selfidentification exercise helped students reflect on their understanding and provided me with valuable feedback on areas that need clarification.
 - -

- 2. Thumbs Up/Thumbs Down: In this strategy, I present statements about the lesson being taught, and students indicate their agreement or disagreement by using thumbs up or thumbs down gestures. Students then provide their reasoning for their agreement or disagreement. This allows me to assess students' understanding and adjust the lesson accordingly based on their feedback.
- 3. Questioning Circus: This activity was conducted with a year 8 class to consolidate their knowledge of waves, specifically sound waves and light. It involved creating different levels of questioning. The whole class started with an easy task, and then two stations with questions of increasing difficulty were set up at the back of the room. The first student to complete the easy task went to station one, checked the answer, made corrections if necessary, and paired up with the second student who finished. This process continued until a winning group completed the last questions at station two. The winning group then shared their answers with the class, and the class checked their answers using the marking scheme. This activity promoted engagement, competition, peer assessment, and teamwork.
- 4. Lesson Starter Routine: With a year nine class, I established a routine where students had a week to complete a homework assignment. When they entered the classroom, they had to identify any problems they encountered and write the questions

on the board. Another student who could answer the question would write the answer on the board. If there were alternative correct answers, they would also be written on the board. Students were then asked to discuss the different approaches and solutions. If a problem remained unsolved, the teacher would provide hints. This routine encouraged collaboration, self and peer evaluation, critical analysis of work, and problem-solving skills.

Conclusion

While formative assessment is crucial for enhancing student learning and outcomes, a combined use of formative and summative assessments provides a more comprehensive understanding of the effectiveness of an educational program. I believe that both types of assessment have their merits and can contribute to a well-rounded evaluation of student progress.



Scan the QR code for the full article



To what extent can coaching Year 9 and 11 pupils on post-16 pathways increase the IB uptake in the 2022-2024 cohort?

Hollie Carter - Director of IB



Abstract

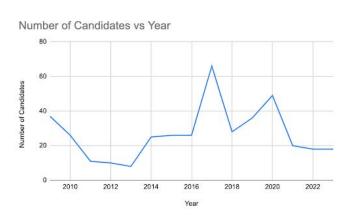
This research aims to investigate how coaching can help students in making a more informed choice for their post-16 pathway and therefore potentially increase the number of students taking the IB. The school has experienced declining numbers of students choosing the IB. A plan was developed by the Director of Innovative Curriculum and the Head of Careers to have a coaching conversation with a senior member of staff. The research collected evidence from a baseline group who had no input and the groups which did have input. Ultimately the results suggest that the coaching conversations can have an impact on the increased number of students choosing the IB. The number of students choosing the IB for 2022-2024 has doubled. This strategy can be used alongside others to maintain the future of the IB as a viable pathway in the sixth form.



Introduction

The IB uptake at Brentwood School has fluctuated since it was first established in 2009. In the figure below it is clear that there has been a downward trend since 2017, excluding the anomaly in 2020. The goal of this research is to ensure we can provide stability in the number of students choosing the IB in the sixth form and secure the future of the programme at Brentwood School.

A cohort of approximately 20 candidates in the exam group is not sustainable long term for Brentwood School due to the poor financial implications of



providing the full curriculum and resources but for a small number of students. Currently, in the sixth form, we have three pathways, A Level, IB, and BTEC. Through discussions with other IB World Schools that have multiple pathways in the sixth form, the idea of coaching students in decision making and pathways led to positive growth in the uptake of the IB. Therefore from this, a coaching plan was drawn up with the Director of Innovative Curriculum and Head of Careers. This involved one to one meetings with a senior member of staff who asked a series of questions to the students to draw out their ideas regarding decision making and what they thought of the different pathways.

Literature Review

The Director of IB at Whitgift School, Emma Mitchell, presented at an IBSCA Conference about the role coaching has played in the uptake of students at her school. Through further collaboration with Emma, she shared a number of resources that she has used for the coaching. St Edward's in Oxford has also used one to one conversations with pupils on choice and the IB to help increase their uptake.

Further reading was then completed around the idea of coaching in decision making. DfE (2017) found that some students start making decisions around post-16 options as early as primary school, but most make their decision in Year 11. They also found that 36% of students start thinking about their pathways in Year 9 or earlier.

Blenkinsop et al, (2006) found that when students feel supported in school decision-making processes they are less reliant on external sources like family and friends. They noted that students are more likely to be happy with their choices after 6 months if they have a well thought through process beforehand.

Methodology

The Head of Careers will schedule 1:1 meetings for every Year 11 student with a qualified external careers advisor in October. The Director of Innovative Curriculum will construct a series of questions, which are designed to coach students around the decision-making process and train senior members of staff on how to conduct the coaching meetings. This will be completed in October. The Head of Careers and Director of Innovative Curriculum will schedule a 1:1 meeting between every Year 9 and 11 student with a senior member of staff. In this meeting, the students will be coached on decision-making. The Year 11 meetings happen

in November before their Options deadline in December and Year 9 meetings happen in January. A baseline survey was collected from the Lower Sixth cohort (2021-2022) who did not have the coaching when making their decision. Further surveys were collected from Year 11 and Year 9 after their coaching conversations to consider the impact. A small focus group to assess other determining factors was set up with Year 9 and 11 students. The final piece of evidence will be the number of students choosing to study the IB for 2022-2024.

Results

The number of Year 11 students choosing the IB for 2022-2024 has increased to 35 students. This has doubled from the 2021-2023 cohort. 77% of students felt supported in their decision making in Lower Sixth without coaching. Whereas, 78% of year 11 said they felt supported. Only 49% in Year 9 feel supported in their choices for the sixth form but this might be because they are earlier on in the process. There is not much change in the data between Year 11 and the current Lower Sixth about the deciding factors. Interestingly, teacher advice has increased by 12%, which suggests an impact of the coaching conversations. Whereas, with the group who didn't have coaching, peer and parent advice was greater than teacher advice. In Year 9, they are still heavily relying on their parents' advice, 77% of them identified this as a key factor in their decision making. In Year 9, 67% of students know who to talk to about the pathways. 32% don't know who to talk to. In Year 11, there is an impact of the coaching conversations because 42% of students found them useful. And 73.5% of them said that it helped them in coming to a decision. Interestingly, 78.6% of Year 9s also found that the meetings were useful in decision-making. However, the comments suggested this was around their options for Year 10 rather than for sixth form.

Conclusion

The School found that there is some impact through individual coaching conversations with students on IB uptake. This is shown in the almost doubling of the students choosing to study the IB in 2022-2024.

It was clear from the data that many factors influence a students' decision-making process. By using the coaching conversations, teachers and the School can offer a greater level of guidance, but still provide students with the skills to make a decision they are happy with.

The data from the Year 9 students suggests the impact of the conversations on their decisions for sixth form was minimal. But it did suggest it helped with their GCSE options which was another key purpose of the meetings. In addition, the Year 9 students are more knowledgeable of the IB and this is something we can continue to build on and support across the next two years until they are in Year 11.

Overall, in terms of encouraging the Year 11s to take the IB, the coaching conversations have had a positive impact. It is an activity we can continue to use and develop.

Next Steps

The main goal will now be to continue to increase the number of students choosing the IB and develop this coaching strategy. The Director of IB will work closely with the Director of Innovative Curriculum to refine the questions, so that they help to guide the students even more. However, this is only one activity that will help to support the growth. It was clear in the interviews with Year 11 students, that knowledge of the IB and the benefits of it are limited or incorrect.

To continue the growth of the IB, events such as the IB Fair and Human Universe Pathways Fortnight will be used to encourage awareness about the IB in the Year 10 students. This will provide Year 10 students with the opportunity to interact and question the IB students. There will be competitions that run at certain times of the year to encourage awareness of Theory of Knowledge such as KNOW-vember. Assemblies have been used in Year 9, but this could also be rolled out to Year 7, 8, and 10 to raise awareness of the IB.

References

Blenkinsop, S, T, McCrone, P. Wade, M. Morris (2006) 'How do Young People Make Choices at 14 and 16?' Available at: https://dera.ioe. ac.uk/6449/1/RR773.pdf (Accessed: 28/4/22)

DfE (2017) 'User insight research into post-16 choices: A report by CFE Research with Dr Deirdre Hughes OBE' Available at: https://assets.publishing. service.gov.uk/government/uploads/system/uploads/ attachment_data/file/664227/User_insight_research_ into_post-16_choices.pdf (Accessed: 28/4/22)

Mitchell, E (2021) 'Coaching Sheet 1', Available at: https://drive.google.com/file/d/16uqqGZ6B_CcQ-leiSjEi81pKFHn1Utg6/view (Accessed: 28/4/22)



Identifying and stretching the 'most able' students in Psychology

Jessica Campbell-May - Teacher of Psychology and Biology



Introduction

The National Association for Gifted Children (2019) identifies students who are gifted as those who have "gifts or talents to perform - or have the capacity to perform at higher levels compared to others of the same age, experience and environment in one or more domains" (p.1). Similarly, the Sutton Trust (2018) describes highly able students as those "with high attainment, but also those with the potential for high attainment" (p.3). Using such broad definitions is useful for this essay as there is a lack of academic literature on what 'scholarship' or 'highly able' looks like in Key Stage 5 Psychology specifically.

In Psychology at Key Stage 5, what is critical to understand when examining scholarship is the modular nature of the course. Students may move from studying Obedience to the workings of the Nervous System. Therefore, the content spans a range of discipline areas from Sociology through to Neuroscience. Ultimately, from module to module, students might display different levels of scholarship and in different forms: a student one week might be deemed able or as displaying great scholarship but not the next week.

There are, however, certain traits showing across modules that illustrate 'scholarship'. For many students, this might be demonstrating a wider interest in the content and relevance of Psychology. For example, through reading extra non-fiction or watching television shows and documentaries. It might be through

telling us about the extra research they did at home after inding a lesson fascinating, or that they told their family all about it over dinner. Often, scholarship in Psychology is expressed as enthusiasm.

Inside the classroom, a student demonstrating scholarship will ask deep questions and ask 'why'. For example, 'why did the psychologist conduct the research in that way?', or asking if something is always the case, with reference to their own experiences and psychology. Scholarship might look like making links to other areas of the course, where synoptic links are critical for high marks, or through simply not accepting a certain theory and critiquing it. Ultimately, as Psychology is a new subject for almost all students at Key Stage 5, scholarship does not necessarily have to be shown through tests and assessments, rather it can manifest through interactions and commentary as students' understanding of the subject develops.

Identifying the 'most able' in Psychology

Brentwood School emphasizes inclusivity in its identification process for students with current and potential ability, driven by a focus on growth mindset. While tests and assessments play a role, the school recognizes the importance of identifying students who demonstrate potential and a growth mindset. For example, in the context of Psychology at A Level, test scores alone may not capture students' full abilities, as the subject relies heavily on exam technique and the application of learned vocabulary. Thus, verbal ability and engagement in the subject are considered valuable indicators of high ability. At Brentwood, the School maintains a register for "most able" or "gifted and talented" students, identified through a combination of departmental discussions, class teacher judgment, and assessment scores. The School also holds a monthly "Psychologist of the Month" competition to recognize students in Year 12 and Year 13 who have exhibited exceptional ability or strengths in the subject. This comprehensive approach combines formative and summative assessments with teacher judgment to identify and support able students effectively.

The difficulties in making stretch and challenge provisions in Psychology

| Basic Concept | Extension |
|---|---|
| Jahoda's criteria for Ideal Mental Health | How might you re-design what ideal mental health looks like in Collectivist cultures? |
| Looking at the DSM and procedures for diagnosis | How would you advise the NHS on mental health diagnosis? |
| Eyesenck's personality theory of criminality | Would it be appropriate to use personality theories of offending in court cases? |

Figure 1 Extending basic concepts for the most able students - planning ahead suitable activities

- Sherrington (2017) and Newmark (2017) argue that teachers often soften content due to concerns about weaker learners, which is not beneficial for highly able students. It is important to plan activities to the highest ability and provide appropriate scaffolding.
- Provisions for stretch and challenge should go beyond relying on memory and encourage higherlevel thinking skills, such as application and evaluation. Tasks should be pitched at the right level of difficulty to be rewarding for students. This requires practice, experience, and a good understanding of the students in the class.
- 3. The student-teacher relationship is a crucial factor in the success of stretch and challenge provisions. Positive relationships can enhance student engagement and motivation. Positive relationships with teachers have a significant impact on students' academic life, as students are more likely to want to work and achieve when they feel supported and valued by their teachers.
- 4. Considerations of social and emotional provisions are important for highly able students, as they may have specific needs related to learning and processing disorders. Socio-emotional development should be considered alongside intellectual development.

Evaluating challenge

A key way I use to see if what I am providing is stretching such students, is if they continue to be, or become more, engaged and fascinated with the subject. For example, I have one student who regularly asks for extra film or book recommendations and always responds very positively to whatever they have engaged with. Their interest in the subject has only increased,

and they are now considering studying Psychology at University. In addition to attitude and engagement, their questioning can indicate the success of their being challenged. If provisions probe more inquiry and interest in exploring the subject, then they have likely been stretched and challenged successfully.

Conclusion:

Writing this essay has been hugely useful to me for considering what I do and what I could learn to do in terms of stretch and challenge provisions. One key thing underpinning it all, however, is the student-teacher relationship and positive atmosphere. In the end, teachers want their students to succeed, but when a relationship with a student is negative it might lead to them not being stretched enough and ultimately not reaching their true potential, even if the provisions are in place. As I develop further in my career, I will no doubt become more confident and consistent in my identification of, provision for, and measurement of the most able students, all the while helping them to reach their academic potential in Psychology.



Scan the QR code for the full article



A Report on the work of the Values Implementation Committee at Brentwood School

Adrian McConnaughie - School Chaplin, Teacher of Chemistry



Aim

In this paper, I set out the details of the work that the Values Implementation Committee has done to help develop and embed our values of Virtue, Learning and Manners into the life of the School. The paper provides a detailed narrative of the journey taken to date and the issues that have been addressed. It also offers a framework for future work.

Introduction to Values at Brentwood School - the Context Virtue, Learning and Manners have been associated with Brentwood School for the last 400 years. On July 18th, 1622, the school statutes stated that

'The said schoolmaster shall receive.....and him shall teach and instruct in virtue, learning and manners after the orders and constitutions of the said school.....'

These three words have come to define the school and to serve as a benchmark upon which we shape our community and our identity.

Whilst it is true to say that Virtue, Learning and Manners have been the cornerstone of Brentwood School, it would also be fair to say that little has been done, until recently, to discuss these values and tease from them a coherent vision for future growth and development.

This paper, and indeed the work of the Values Implementation Committee, is founded firmly

upon a recent decision to take a closer look at Virtue, Learning and Manners and to begin to develop a clearer school vision for the future.

The School Vision and Values

In recent years, much work has been undertaken at a variety of levels across the school to develop and embed our school vision. The School vision, which seeks to capture the foundational significance of our values is

"We enable our pupils to become the best version of themselves by developing Virtue,

Learning and Manners."

The vision and values seek to underpin all that we do and the school's ambition is for us to fully embed this vision to all aspects of our school community.

In response to this initiative, the School's long term strategy document seeks to set out the vision and associated values with an attempt to begin to explore definitions for each of the values of Virtue, Learning and Manners. It is from this document and the thinking that underpins this that the work of the Values Implementation Committee arose.

The Values Implementation Committee

The Values Implementation committee was established in 2020. The terms of reference, state the purpose of the committee as being 'to ensure that our values inform everything we do, from long-term strategy to the day-to-day life of the school, we will establish a standing committee.' The committee, in seeking to play a key role in the development of vision and values, has been given two broad tasks:

- Explore how we currently espouse, promote and 'live' the school's values of Virtue, Learning, Manners through scrutiny of school policy and practice
- Consider how we might develop our use and application of the school's values.

The Committee is currently chaired by The Chaplain and members are drawn from Prep and Senior teaching and operational staff which reflects the diverse nature of the staff body. Meetings are twice termly and the Chair reports directly to the Headmaster and regularly reports to SLT outlining the work of the committee.

The Work of the Committee

Establishing a framework

An exploration of the way in which collective values are established and developed is a broad task and to that end, the committee sought to adopt a framework to help it navigate this and to provide a path along which it might be able to establish the current level of engagement with our school values.

The Georgia Leadership Institute for School Improvement (GLISI) offers one such framework which seeks to break the task of developing, shaping and sustaining a vision into four key areas:

- Casting the vision
- · Implementing the Vision
- · Communicating and Branding the Vision
- · Sustaining the Vision



Initially, the committee sought to explore the degree to which the vision and established values were embedded and known across the school through a simple breakdown of each of these areas as outlined in Figure 1.

| Casting the Vision | Leader role to establish vision and Share in its development. |
|---------------------------------------|--|
| Implementing the Vision | Continuous process. Tasks: Tasks: To connect with all stakeholders To assess school needs To embed vision in the school culture |
| Communicating and Branding the Vision | What is the school image and how is it communicated? Building a brand here that is aligned to vision. Communication of this brand to stakeholders also key |
| Sustaining the Vision | Sustaining over time is key How do we know when to revisit and revise? |

Figure 1: A simple breakdown of the four key areas within the roadmap for developing and sustaining a school vision.

The adaptation of this simple framework allowed the committee to capture both the broad nature of the remit but also, importantly, a means of beginning to draw together some key areas for development. Figure 2 outlines the way in which such key areas could be highlighted through the use of this framework within the group. The details provided relate to a group discussion around 'casting the vision'.

| Action Steps These largely relate to the role of the headteacher. | Discussion notes Add comments here which relate to this step. Where are we as a school and what needs to be considered further? Is this an important step? | Actions/ discussion points Actions to consider and areas to explore further. |
|--|--|--|
| Soliciting - input from all stakeholders on the core values to be included in vision statement | Stakeholders (pupils) understanding the importance of the input given to them. An element of this has been lost or not recognised. Virtue, Learning, Manners - guide them to contribute to these values directly. | Consider ways in which the pupil body can be more directly involved in ownership and understanding of these values. What are the next steps for this? |
| Collaborating - with SLT to draft vision based on input gathered from stakeholders | Involvement of 6th formers / student voice - opportunity to contribute, eg student choosing a reading for an assembly Peer mentor | Explore explicit ways to publicly highlight values within the School (linked to above) Music and Sport areas as possible key ones? Sport team management perhaps KEY area? #VLM. Senior pupils (in Senior and Junior schools) perhaps have a key role here to play? |
| Presenting - presenting a draft of statement to all staff in order to allow for revision and discussion | Training / INSET for all staff, especially new staff for support and continuity | Introduction of 'values' interview process for new staff marks a move in this direction. INSET opportunities to build upon values. A key INSET priority for 2021/22? |
| Unveiling - presenting to all stakeholders to show intended school direction | Transparency of the end goal - Streamlining of initiatives - to gain more clarity, focus and attention Transitional days - activity days dedicated to building learning habits and academic etiquette | Clarity of messaging to be considered? Explicit links between initiatives and the overarching vision and values of school. |

Figure 2: The use of the framework to help highlight areas of strength and areas to develop.

Values - seeking a common language

From the group work centred on the framework, it became clear that the work of the committee would require us firstly, to seek to capture a common language around the meaning of 'Virtue, Learning and Manners.'

In the long term strategy document, an attempt to capture something of the meaning of each quickly leads to a wide variety of statements, each of which would be true and accurate within a context. As an example, the value of 'Virtue' is linked to 12 characteristics- Integrity, Authenticity, Honesty, Generosity, Truthfulness, Kindness, Accepting responsibility, Courage, Caring, Fairness, A role model for others, Respect for the dignity and rights of all people.

The framework also invited us to consider the current extent to which Virtue, Learning and Manners were known and embedded in the school. This led to the decision to carry out a staff survey to begin to measure this and to help us discover the common language that staff use with regard to these values.

The Staff Survey

The Staff survey was posted to all staff in March 2022 and asked the staff three basic questions around these values:

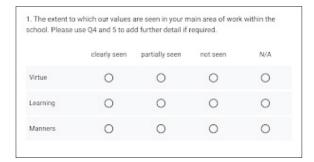
The extent to which our values are seen in:

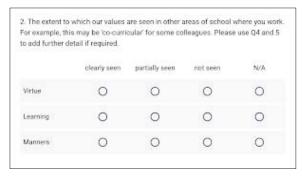
- 1. your main area of work within the School
- 2. other areas of the school where you work
- 3. your daily contact with the wider staff body across the school.

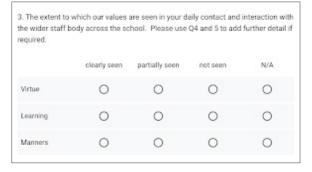
In addition to these, staff were asked to provide details in response to these two statements:

- 1. In my main area of work, our values are most clearly seen in the following ways.
- 2. In my main area of work, I would like our values to be more clearly seen in the following ways.

The specific layout of the survey questionnaire can be seen in Figure 3.







| 4. In my main area of work, our values are clearly seen in the following | ways. |
|--|-------|
| Your answer | |

Figure 3: The staff survey

In order to help staff colleagues complete the survey, it was decided that they would be given a range of common vocabulary (and associated exemplars) which was generated from the strategy document.

VIRTUE: Integrity; Authenticity; Honesty; Truthfulness; Kindness; Role model for others; Respect for all Exemplars: "celebrate the success of others"; "presence of good role models for others"

LEARNING: Curiosity; Open-mindedness; Motivated; Thinking critically; Collaborating; Adaptability; Proactive Exemplars: "consistently take the initiative"; demonstrate sustained hard work and instil this in others"; make use of target setting in order to progress and develop.

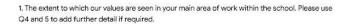
MANNERS: Speaking and acting kindly; Politeness; Courtesy; Building positive relationships; Welcoming; Working as a team; Consideration and respect for others. Communicating constructively.

<u>Exemplars:</u> "having a consistently positive influence on others"; "opinions voiced respectfully and with empathy"; "commitment to rebuilding relationships

Survey Outcome

The survey generated 75 unique responses and Figure 4 illustrates the results from question 1. The graph shown highlights one key point which was reflected more broadly in the detailed responses to the latter two questions - the extent to which there seems to be less evidence for the presence of Virtue and Manners within the school context.

With such a small survey, it is unwise to draw too many conclusions, but it did suggest to the group that there is particular work to be done in helping staff understand more fully what we might mean by Virtue and Manners and helping staff to be clearer about how these could be more deeply embedded within the community.



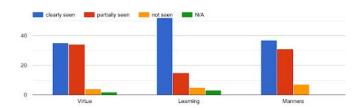


Figure 4: Results of staff survey - Q1 only.

The detailed responses within the survey provided much needed detail regarding values and, in particular, they gave the committee an insight into the common vocabulary that staff chose to use when discussing values.

A community-wide exploration of Values - September INSET

In September 2022, the School set aside time for whole-school INSET on Values and this provided the first important opportunity for the staff community to engage with our Values and how we might further embed them. As a committee, we recognised the importance of this time and in our planning we were driven by some key outcomes:

- Develop a deeper sense of community within the staff body (certainly post- COVID) and to that end, we created groups that reflected the diverse working environment in the school.
- 2. Create engaging opportunities for the staff body to discuss values and what they mean to them.
- 3. Ensure that there was an opportunity to value staff through quality time together over refreshments.

The INSET brought together around 400 staff in 48 distinct groups where they engaged with tasks that helped them to explore Virtue, Learning and Manners. The closing activity within the INSET asked each group to take a set of values/characteristics and place them in a diamond rank order. The nine chosen were the top nine characteristics spoken of within the initial Staff Survey. The results of each group were then averaged to find the overall 'Diamond Nine' which is shown in Figure 5.

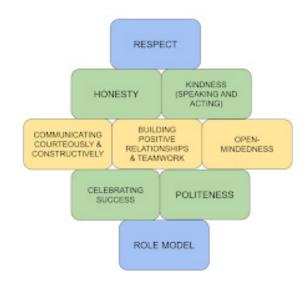


Figure 5: The overall averaged Diamond Nine of Values

Digger Deeper - Values for Developing People Following from the INSET in September 2022, the committee was given the opportunity to continue with this area of staff development in February 2023. The Diamond Nine helped the staff as a body to begin to prioritise values and to consider which are of most importance.

To help enable staff to further consider this list of nine and dig deeper into the importance of underlying values, the committee asked the original groups from the September INSET to reconvene and consider which of the given values would be most central in the development of people, which is one of the central strands within the Long-term Strategy document.

Through the specific contextual lens of this strand, groups were asked to further prioritise from the top 6 most highly ranked values from the Diamond model. The results from each group were analysed and from this a set of four values/characteristics were highlighted as shown in Figure 6.

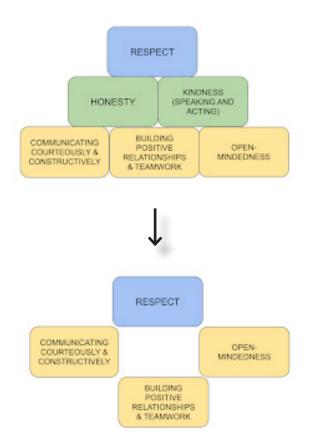


Figure 6. Refining of values through a consideration of 'Developing People.'

Future Directions - Developing a Staff Charter
The work of the Values Implementation committee
to date has given much needed space for staff
to consider our vision and associated values and
provided important INSET time for staff to discuss the
importance of these values and how they interpret and
promote them. Through extensive consultation across
the breadth of the staff body, the committee has been
able to produce a small group of values/characteristics
which seem to most embody their own priorities
with regard to working in this school community.

The current work of the Values Committee is now focused on finding a way in which these values can help to develop a lasting 'staff charter' to which, all staff will be able to commit to. It is hoped that such a charter will be instrumental in shaping the manner in which we engage with one another and offer a key framework around which the staff appraisal system might be shaped.







Staff reflections

Projects 2020-2022



Solange Roast

To what extent does the use of Modern Foreign Languages writing placemats improve the performance of Key Stage 4 pupils in IGCSE writing?

One of the most challenging areas in the acquisition of a foreign language is being able to produce the language. Language teachers often find their students resorting to Google translate when having to complete a piece of writing which defects the object of students putting into practice their written skill using concepts taught in lessons.

In order to try to alleviate the pressure felt by students when having to write in the foreign language they study, some members of the Modern Foreign Languages department came together and designed "writing mats" for their specific language aimed at Key Stage 4 students (possibly Key Stage 3).

For French, 3 different level writing mats were designed:

- 1 for lower ability students (simplified version)
- · 1 for medium ability
- 1 for advanced ability (more complex with idioms and complex language).

These mats offered a revision of tense formations, grammatical structures, connectives, adverbs, expressing one's opinion, idiomatic expressions etc...

These mats were introduced in the 4th and 5th year during lessons so students became familiar with the mat and used the tool to ease their approach to writing. The mats continued to be used during written tests with the aim that they would be removed little by little as the students were acquiring the technique.

Unfortunately, due to the Covid situation, we were unable to continue with the project.

I feel this is a tool that could be useful to use and it may be worthwhile introducing it in younger years in order to create familiarity with it and having more time to build confidence using this tool.

I will definitely pursue this project in the future.











Niki Roberts, Fran Sheridan, Alexandra Hossack & Jayson Blom

To what extent do pupils in Lower Key Stage 2 recognise cross curricular links when doing mathematics?

We looked at research titled 'The importance of numeracy across the curriculum', as well as 'Numeracy across the curriculum; research-based strategies for enhancing teaching and learning'. This research suggested that pupils find it tricky to apply their numeracy skills in other subjects and that strategies need to be employed to explicitly point out the cross curricular links to children; this will enable children in the long run to apply their numeracy skills independently.

With our children being in subject specific classes, it is clear that the emphasis on the subject itself can take away contextual understanding elsewhere in the curriculum. It is therefore important that we look to make links in our teaching and help children to understand that learning can have cross subject benefits.

The Guardian writes: 'Saying you're rubbish with numbers is seen as a badge of honour in the UK'; we need to address this. In addition, with STEAM jobs being predominantly male, it could be argued that female perception and attitudes to numeracy in a variety of contexts needs to be further addressed.

We explored how this could be measured across Lower Key Stage 2. Initially, we collected our baseline data which clearly demonstrated that children were not or were not aware they were applying their numeracy skills in the wider curriculum. In our baseline data, it is clear that our children do not perceive numeracy as a subject which is cross curricular but instead taught in isolation.

We then created a tick sheet for each classroom and tasked the children with identifying when they used their numeracy skills in another subject. The children were very keen and immediately began noticing how they could apply their Maths skills to other subjects.

We then collated the data at the end of the term to analyse whether children were recognising the cross curricular links. All subjects have increased by at least 30% and this would likely have been higher if it was not for lockdown and homeschooling.

What did we learn?

With our children being in subject specific classes, it is clear that the emphasis on the subject itself can take away contextual understanding elsewhere in the curriculum. It is therefore important that we look to make links in our teaching and help children to understand that learning can have cross subject benefits.

The links made need to be explicitly taught or regularly referenced for children to begin to independently apply their numeracy skills. Our data suggests that regularly referencing numeracy across the curriculum has had a positive impact on children's application of Maths across the other subjects.

What will we do next?

Next year, we will continue to regularly reference numeracy in all subjects. In addition, as a new focus, we will be looking at girls' attainment in Maths. We will address any cultural and social impacts that may cause girls to have a negative view of Maths.



Neil Turnbull

What did you look at this year?

The effectiveness of using 'Rubrics' in google classroom:

- To scaffold longer exam answers/coursework in order to address higher order thinking and create evaluative responses (specific focus on L6 BTEC coursework)
- · As a method of effective marking and feedback
- As a method of bridging the gap for less academic students in a cross curricular setting by assisting them to access the higher grades.

What did you learn?

- Grades increased by an average of 1 grade across the cohort
- Difficult to quantify the effect on marking and feedback but verbal feedback from students and staff has been very positive. Time saved is significant
- BTEC students with entry level to 6th form of less than 50 have been able to access and produce Distinction level work
- As an additional bonus it has helped new staff integrate to the course easier and to create consistency across the department
- I have also found the use of Rubrics beneficial for students (ZL) with SEND who benefit from tasks being broken down into Manageable tasks
- I have also found the use of Rubrics beneficial for students (ZL) with SEND who struggle to absorb instructions and benefit from being able to see them as a support structure for their essay/coursework writing.

What will you do next?

- Expand the test sample to this year's cohort which will triple the size of the sample and will be used by 3 additional members of staff
- Carry out a survey to gather feedback from students and staff to give some numeric data to support the positive verbal feedback already gathered.





Holly Cassidy

Engaging students with online homework tasks

What did you look at this year?

We noticed that engagement in homework was not where we wanted it to be at the start of the year, particularly with our year group in and out of school a lot due to periods of self-isolation. We tracked the children's engagement through the use of Google Classroom and also gave the children a questionnaire to complete to understand their thoughts on it.

We started to include online platforms - interactive games, quizzes, video clips etc. where possible as the children's homework tasks in English and Maths in Year. After around a term, we analysed the engagement of the children again via Google Classroom.

What did you learn?

We found that the majority of the children felt that homework tasks which involved an element of online platforms/interactivity was more engaging and that they felt happier completing these tasks compared to written homework tasks. We also noticed that after a term of including more online homework tasks, there was an increase in their engagement of tasks - see below. Michaelmas: Maths 63% and English 52% Trinity: Maths 83% and English 85%

What will you do next?

In the Prep, we will be introducing the use of Atom prime from September which will offer far more fantastic resources on their online platform for homework. Therefore, we will take a new set of data after around a term of using this next year to compare if this makes even more of a positive impact on the children's engagement.















Jess Collins, Sarah Davis, Chris Long, Dave Wright and Andy Linton

Does reflecting on exam practice impact student progress?

Reflection is a proven metacognitive tool that enables students to look back on work, or the progress they have made, and identify areas of strengths and weaknesses. This can be used in all areas of work from homework, to classwork, summative and formative assessments. Once reflection is carried out, students can focus on how to improve on their weaknesses, and employ new techniques when repeating this work in the future. This innovation is particularly aimed at GCSE and A Level when outstanding exam technique and understanding of assessment objectives is crucial to achieving the highest grades. For example, knowledge is only worth 15% at GCSE and 25% at A-Level. Data was collected through a reflection form. Pupils were given a table to complete, hyperlinking in their practice questions. They were asked to reflect on their answers prior to any feedback from their teachers. The work was then marked by the teacher and the feedback and mark added to the table. The ongoing process allows students to identify patterns or trends in their technique and so work to improve on them for subsequent questions.

What did you learn?

Baseline data collected so far:

Data gathered through a Google Form shared with GCSE and A-level students prior to the innovation being implemented. Main purpose was to ascertain the confidence students have in current exam technique and whether they carried out any form of reflection already.

GSCE results

- average confidence 5.5/10
- 52% of pupils strongly agreed that reflection helps them to improve
- 0% felt self reflection was helpful to progress.

A-Level results

- average confidence 5.85/10
- 55% of pupils strongly agreed that reflection helps them to improve.
- 0% felt self reflection was helpful to progress.

Overall student feedback has been positive but is still varied at this stage. 6/15 Year 10 students reflected on their progress more often, following their engagement with the reflection document. 66.7% of students now feel that self reflection has helped them to get better at exam technique. 46.7% of respondents felt that a combination of both teacher feedback and self reflection is most beneficial in improving their academic progress. 53.3% of students felt that teacher feedback alone is most beneficial. This could be because greater time is needed to improve student confidence in their reflective abilities.

What will you do next?

We felt we needed to collect more data to draw more reliable conclusions; currently we only have 15 respondents. Therefore we intend to continue this reflection with current students as they progress into Year 11, as well as pick this up without new Year 10 students, to help us identify whether increased use, time and support helps students feel more comfortable in self-reflection.







Glenn Smith, Solange Roast and Amy Wall

The use of Sentence Builders to build confidence in low-ability pupils and stretch the most able.

What did you look at this year?

This year we planned to use sentence builders following the E.P.I. approach to improve the students' retention of vocabulary and key structures. This would also provide them with a framework for their writing and oral work.

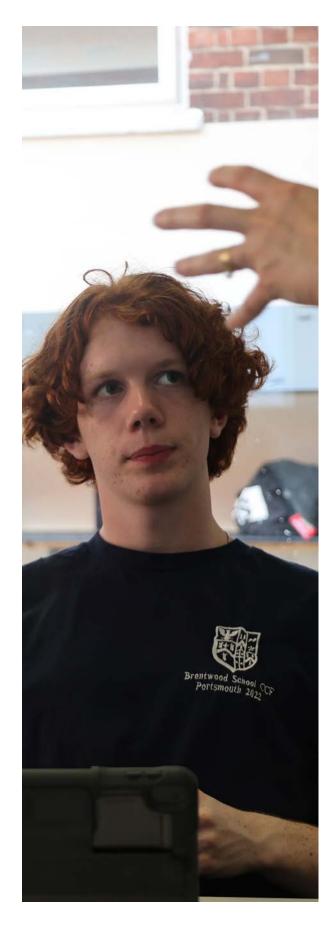
What did you learn?

We implemented this with Years 7 and Year 8 and learnt that:

- many pupils still made lots of mistakes as they were unable to copy words from the sentence builder correctly;
- those who applied themselves improved their written and spoken work considerably based on previous vear;
- more able pupils used the GCSE-level complex structures in their end-of-year exam as a result of drilling using this method;
- it was a useful tool for the end-of-year exam as it was clear that the pupils who had used the tool could recall core vocabulary and structures.

What will you do next?

- Ensure there are sentence builders for all Year 7 and Year 8 topics
- Research and implement more of the teaching strategies/activities which use this approach
- Seek student feedback on this approach.







Sarah Lengthorn and Claire Miles

How important is the understanding and regular use of mathematical vocabulary in improving a student's mathematical attainment and progress?

Literature Review:

Why is mathematical vocabulary important?

Lee and Hermer-Patrnode (2007) state that frequently students get questions wrong because even though they understand a concept, they do not know the vocabulary that is connected with it.

Monroe and Orme (2002) argue that if students do not know word meanings then they will not be able to use higher order thinking.

Rubenstein & Thompson (2002) highlight that mathematical words are abstract and thus are difficult to understand. Furthermore, many abstract words are used for more than one concept.

Burns (2006) states that mathematical vocabulary is often not used in everyday life, students are typically exposed to these words only in their mathematics class. It is not comparable to learning a foreign language because they are not learning new words for concepts they already know, they are learning new words for new concepts.

Students benefit from teachers taking the time to teach language (Thompson & Rubstein, 2000). Monroe and Orme (2002) state that a key component in understanding mathematics is learning the vocabulary. One of the goals for learning vocabulary is to have students be able to independently problem solve. When the students learn the vocabulary and can problem solve correctly, they will be able to develop problem solving skills outside of the classroom (Shields, Findlan, & Portman, 2005).

Effective strategies for learning mathematical vocabulary:

Burns (2006), Lee & Hermer-Patnode (2007) argue that teachers need to make sure that they do not get into the habit of only using one strategy, because most students do not learn the same way.

There are four principles to teaching mathematical vocabulary effectively: use different strategies, engage students interacting with the vocabulary, and to connect the new vocabulary to prior knowledge (Furner, Yahya, & Duffy, 2005; Lee & Hermer-Patnode, 2007; Shields, Findlan & portman, 2005).

Strategies Include:

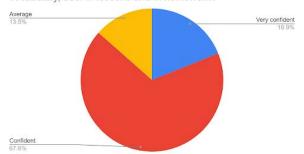
- · Games bingo, fake out, pictionary, loop cards
- Morphology
- Writing vocabulary
- Graffiti wall / working wall
- Graphical organiser / glossary
- Making sure that students use the vocabulary when they talk to one another and the teacher in class.

What did you learn?

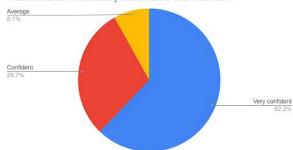
We conducted a baseline questionnaire with our Band 1 Year 5 maths pupils to understand how they viewed their ability to use mathematical vocabulary and whether they consider it important to understand and use mathematical vocabulary and if so, why. The results were as follows:

Baseline Results:

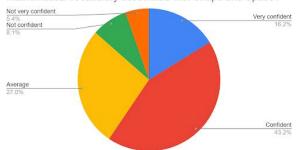
How confident are you in understanding different mathematical vocabulary, both in lessons and in homework?



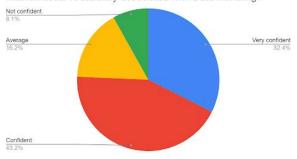
How confident are you in understanding and using mathematical vocabulary associated with Number?



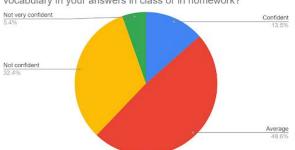
How confident are you in understanding and using mathematical vocabulary associated with Shape and Space?



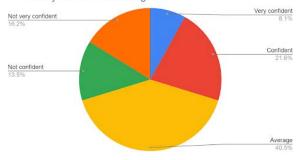
How confident are you in understanding and using mathematical vocabulary associated with Data Handling?



How confident are you in using different mathematical vocabulary in your answers in class or in homework?



How confident are you in understanding using mathematical vocabulary associated with Algebra?



All students stated that they consider the use and understanding of mathematical vocabulary to be important. Reasons why included:

- Other people being able to understand your written and verbal reasoning and answers
- Being able to understand a question correctly
- · Being able to understand maths in different ways
- · Using mathematical vocabulary in everyday life
- Helping you with GCSE and A level maths (progression)
- · Helps with other subjects e.g. science.

Students were asked how they thought their teacher could help them improve their understanding and use of mathematical vocabulary. Answers included:

- Teacher explanations / definitions / modelling how to use the vocabulary correctly
- · Vocabulary to be a regular feature of lessons
- · Record vocabulary in exercise books
- · Interactive activities
- Revisit / revise vocabulary regularly
- Mathematical synonyms
- Creating posters for display
- · Quizzes with prizes.

Students were asked how they would know if they had gotten better at understanding and using vocabulary. Answers included:

- You will find Atom and exams easier
- You start to use different words in conversations in lessons and in written work
- You would understand word problems more easily and would not need to look up or ask for the meaning of words
- Scoring highly in a mathematical vocabulary test / quiz
- You will feel more confident in lessons
- Comparing your scores on the same test, which includes mathematical vocabulary.

What will you do next?

At the start of Michaelmas term 2022, we will provide our Band 1 Year 5 and Year 6 maths pupils with a glossary of mathematical vocabulary that will support the concepts and methods in their corresponding curriculums.

As with our Band 1 Year 5 classes of 21/22, we will provide a baseline questionnaire for our Band 1 Year 5 22/23 classes to complete at the start of the academic year.

Throughout the year, we will incorporate some of the effective strategies for learning mathematical vocabulary (as listed above) in lessons, as well as referring to the glossary definitions frequently.

During Trinity term, we will ask all pupils from our Band 1 Year 5 and Year 6 classes to complete the same baseline questionnaire. This data can then be compared to their initial assessments to determine whether their perceived ability (to use and understand mathematical vocabulary) has been altered.

Additionally, we will look at the pupils GL assessment standardised scores and progress indicators to see if the vocabulary focus has an impact on their progress over the course of the year, and how this compares to previous years.





Kirstie Bleakley

To what extent does setting homework in a digital format improve engagement levels?

Introduction

I started this R&D cycle by joining an existing project that Year 4 teachers had started with the aim of looking to extend this research into Year 3. The Year 4 team has been collecting data on how children engage with their homework. Do children complete their homework more often when it is in a digital format compared to traditional paper homework given on sheets or in an exercise book?

The Project

The aim was to introduce the use of Atom Prime into Year 3 after February half-term and then to study and compare data across Year 3 to see if engagement levels increased when homework was set online. Unfortunately, due to various reasons, Atom Prime was not introduced and still hasn't been introduced into Year 3. My feeling is that the pupils are young and that Atom may not be the best and most useful platform. Therefore I have not been able to carry out the anticipated research.

The use of Google Classroom has increased since its introduction 2 years ago and we are now starting to refine its use within Key Stage 2. We had a number of issues with parents using Google Classroom and due to Covid restrictions were not able to invite parents for a training session and workshop until March 2021. Young children still require their parents' support and many of our pupils either don't have their own devices so use their

parents or require help and support with logging on and accessing their homework when at home.

Homework has continued to be a hybrid and a mix of both written and digital homework using Google Classroom.

The Future

I am going to continue to monitor and record engagement levels and compare homework set on an online platform and that set in a more traditional paper-based format. This will enable us as a year group to evaluate how best to implement homework in Year 3 for maximum impact.







Molly O'Rourke and Lynsey McCrory

How can collaborative learning across departments lead to a more inquisitive and reflective learner?

We looked at the above title by collaboration between Business and Food Technology departments on a marketing and advertising project. In the project students were introduced to the negative and positive effects of marking on food products. They also created their own healthy sweets and created packaging for this with the knowledge they learnt from the lessons we collaborated on.

What did you learn?

We learnt that students have some knowledge that subjects overlap but mostly they do not bring their knowledge from one subject to another or even prior knowledge. We have learnt that you have to explicitly outline the connections between subjects. At the start of the project we asked the students questions about the connections between marketing vs reality. Initially the students answered.....

At the end of the project and after the collaboration with Business, we then asked the same questions, the results differed. You could see that students began to reflect on what they have learnt and realised the connections of the two subjects.

What will you do next?

We have been fortunate enough to be able to collaborate next year on a pop up cooking enrichment on a Tuesday so we will now continue to work together on this project.











Inner Drive' and an acclaimed advisor, facilitator and author supporting leaders and organisations to success. An accomplished speaker, Sharath has delivered talks

World Economic Forum. Sharath holds degrees from Cambridge University, Oxford University and INSEAD. He was awarded an OBE in 2022.

Ideas Fair 2021 Speakers

The challenges of adopting nonlinear pedagogy within Physical Education

Ben Crickmay

Despite research advocating a shift towards nonlinear pedagogy, such a transition is yet to materialise in practice, courtesy of an ingrained teaching habitus" underpinned by "linear ways of thinking". Therefore, my masters thesis not only attempts to better understand the practical and social barriers associated with nonlinear learning spaces, but also attempts to gain ecologically valid insights into how teacher education can better support newly qualified teachers pedagogic development.

To what extent do pupils in LKS2 recognise cross curricular links when doing mathematics?

Fran Sheridan, Jayson Blom, Niki Roberts, Alex Hossack

We have realised that children see numeracy as a stand alone lesson and are not applying or realising they are applying their knowledge of mathematics to other subjects. We carried out our R+D project, looking at how we could improve the Year 3's perception of numeracy across the curriculum.

How do we use labels when teaching neurodiverse children?

Melanie Knight

When we know we are teaching a child who is neurodiverse do we just see them as a set of characteristics or do we try to understand them as individuals? Do we make presumptions about what they can and cannot do? What do the children actually want us to know about how they learn and how we can adapt our classrooms?

Can year 10 Physics students successfully incorporate and embed procedural metacognitive strategies into their working practices in order to see an improvement in the use of strategies they use for their homework tasks?

Chris Beadling

I used focus groups, student feedback and lesson evaluations from my usual working practices to triangulate qualitative data to come to a conclusion. Based on my analysis not every student followed all of the strategies completely, however by looking at specific individual questions from student work it is clear there has been some improvement and embedding of the strategies.

UK Prisoner Disenfranchisement - A Necessary Measure or a Threat to Human Rights?

Jess S, Upper Sixth

Is voting a fundamental human right? Does committing a crime automatically remove your rights to participate in society? This talk poses the question of whether the UK's current 'blanket ban' on prisoner enfranchisement is a justifiable measure or whether it stands to unreasonably infringe on the human rights of UK citizens. Analysing case law, philosophical arguments and the political discourse thus far - the talk aims to conclude whether the current measures are proportional.

Educating people about the Feminist Movement of 60-70s America through my quilt work. To evaluate its effectiveness by presenting my quilt to others.

Emily H, Upper Sixth

The dichotomy of the question: Can I educate about the feminist movement of 60-70s America and how it remains relevant to modern day politics through the tradition practice of American patch work quilting.

To what extent can retrieval practice strategies in the form of low stakes quizzing improve student performance at A Level?

Sophia Afsar

My top 10 strategies and the science behind retrieval practice.

To what extent do noise cancelling headphones improve concentration levels in young children?

Sarah Marchington

Developing our R&D project from last year, we have continued to asses the impact of noise cancelling headphones on concentration levels in 6 and 7 year old children displaying early signs of ADHD.

Finding commonality in assessment in Art across KS2, KS3 & KS4

Chris Lonsdale

Working closely with the Prep School Art department last year we discussed and implemented its first comprehensive assessment strategy. The knock on effect was an opportunity to adapt and refine the assessment at Key Stage 3 to create a bridge between Key Stage 2 and Key Stage 4 approaches to marking.

Building a 3-18 Music Curriculum Strategy

David Revels

Exploring a range of different methodologies in other schools, critiquing our own practice and evaluating the scientific data supporting how learning a musical instrument as a child increases attainment across many subject areas including Maths, English, Language development and the Sciences.

To what extent does studying Drama contribute to life long learning/skills that can be used in future careers

Sophie Hermosa

As part of our general R&D project (3 - 18 PA) we decided that there is a misconception that Drama as a subject is only for those who want to go on to be actors. In this presentation we are looking at all the co-curricular skills that the study of Drama facilitates and the importance that it should have in the curriculum because of that.

Into the outdoors: an evaluation of student experiences in the early implementation phase of an outdoor curriculum.

Lisa Coverson

This study will explore the impact of an Outdoor Education Curriculum during its early phase of implementation at Brentwood School across the Prep and Senior site. As part of an action group tasked with planning and executing this curriculum, I am interested in the experiences of students, either positive or negative, to help inform decisions being made about its delivery. This study builds on a body of research that suggests outdoor learning offers a wide range of positive learning experiences for students, ranging from reduced rates of obesity, attention deficit disorders, and increased levels of happiness (Louv, 2005 and James and Williams, 2012).

Genetic Engineering: Should we be playing God?

Rishal N

I will be exploring the mechanism behind genetic engineering's newest and up and coming tool - CRISPR. In addition I will be exploring its uses, both in and out of clinical settings and tackling the ethical issues that arise from this technology.

Is there equality in divorce?

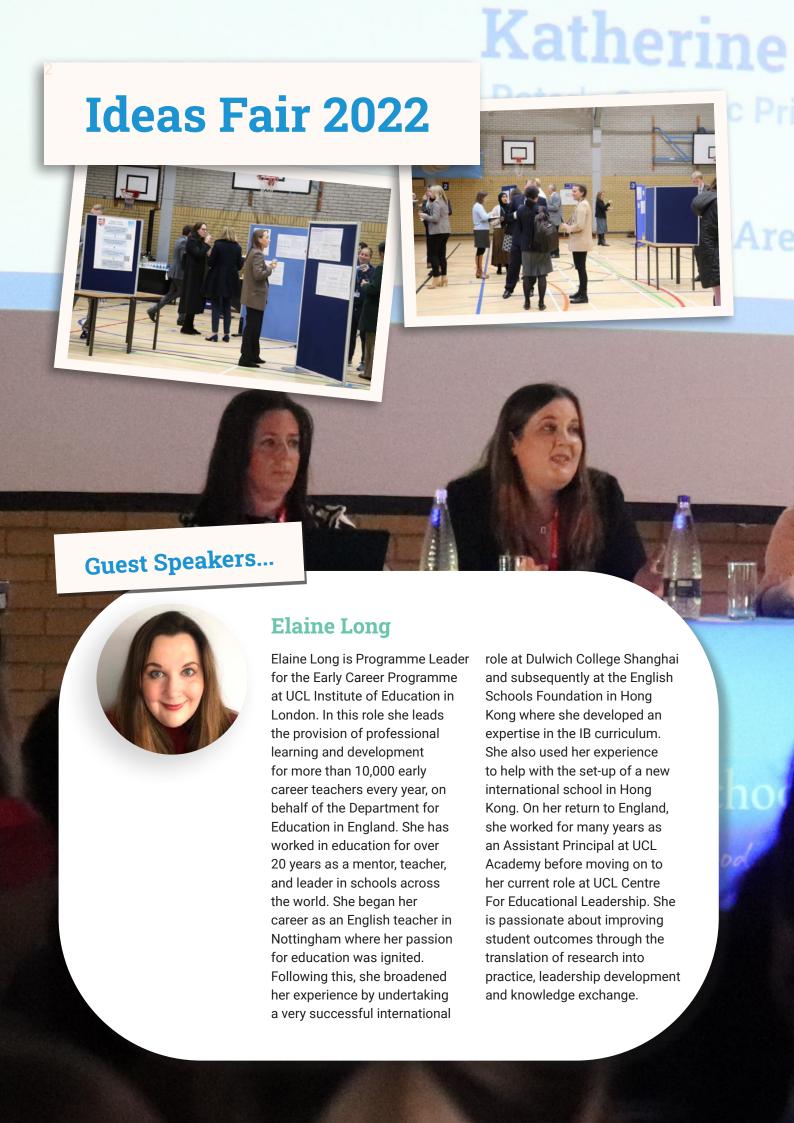
Thea M, Lower Sixth

In my presentation, I will be discussing why I chose to answer the question 'Is there equality in divorce?' I will be exploring examples of where equality has been sought from divorce such as the divorce between Jeff Bezos and his wife and in contrast where equality has not been achieved.

How can we encourage pupils to engage with feedback to promote good pupil outcomes?

Megan Swettenham

Based on my R&D project from last year, trialling a target tracker for Key Stage 3 pupils to help engagement with feedback.





Ideas Fair 2022 Speakers

First Teams Research to Support Developing the Culture of Teamwork

Chris Lonsdale

The first teams programme has been running for a full academic year. Behind the scenes I have been researching and analysing data and information to explore the effects of the activity on those who have participated to consider the impact of the programme. I will share some of the findings and discuss the benefits of participation as I reflect on the full first year of activity.

Likely future career as a predictor of attainment

Ollie Prinn

Students who know what they are doing after school perform worse at school. This is because they lack the intrinsic motivation to attain highly, since they inherently do not need to. Students who attain highly often do not know what their future career will be.

Building a 3-18 Music Curriculum Strategy

David Revels

Exploring a range of different methodologies in other schools, critiquing our own practice and evaluating the scientific data supporting how learning a musical instrument as a child increases attainment across many subject areas including Maths, English, Language development and the Sciences.

Embedding metacognition strategies for improved homework tasks

Chris Beadling

Based on ad hoc research conducted within the department it led to a more detailed study on how we could get students to learn how to prepare for exam-style questions using key words, definitions and equations. Both within the classroom and therefore (hopefully) leading to an embedded strategy for the public exams.

How important is understanding and regular use of mathematical vocabulary in improving a student's mathematical attainment and progress?

Claire Miles and Sarah Lengthorn

During our R&D cycle, we studied literature outlining the importance of mathematical vocabulary, and effective strategies to enhance the teaching and learning of mathematical vocabulary. We reviewed baseline data from Years 5 and 6 Band 1 maths classes and will continue this cycle by introducing a glossary and incorporating specific strategies into lessons.

How visual exemplars and online resources can improve attainment and independence from Key Stage 4 classes

Victoria Cooper

The Art department works to bridge the gap between School and University level teaching and develop students into creative and independent learners. I have piloted an online resource that gives students high quality exemplars, tasks that they can select themselves and a bank of resources that they can use to improve their attainment and their own resourcefulness.

Can Peer Mentoring Improve Attainment in Maths?

Brian Paredes

Sixth Form Maths students worked with underachieving Year 11s, focusing on a different topic each week, recapping foundational knowledge and completing exam questions.

Into the outdoors: student experiences in the early implementation phase of an outdoor curriculum.

Lisa Coverson

My research delves into the experiences of Year 8 students though their participation in an outdoor STEAM enrichment programme and an experiential field trip.

Is bioprinting the future of organ transplants?

Divya B

Based on my HPQ project. Will we find a solution to the lack of organ donations? The artificial creation of human tissue and organs may seem like a futuristic fantasy but, incredibly much of it is happening right now! 3D Bioprinting can be a game changer in the field so come along and let's build hope for the future by printing cells.

The Maths Behind Music

Sammy L

Based on my EPQ, titled 'Has Equal Temperament Ruined Harmony for the Modern Listener?'. We will explore the links between mathematics and music, and some philosophical intentions of harmony. Maybe it has, but does it really matter?

To what extent is the way that humans domesticate animals ethical?

Tabitha W

Based on my EPQ, this project looks at a brief history of animal domestication, going on to explore the research undertaken throughout the project. I review both the positive and negative impacts resulting from animal domestication to reach an overall conclusion. Within the presentation I will be highlighting salient points from my research and how the project as a whole enabled me to develop my analytical, research and time-management skills.

To what extent is dictatorship a beneficial way of management and political power?

Will S

Based on my EPQ. When we consider dictatorships, the Western view is rarely positive. However, people do not often think of the furthered efficiency and management enabled by this strategy. Surveying students and teachers curated some interesting outcomes with the question: how can a classroom, business or sports team benefit from a 'dictatorship' (or not)?





ELY FUTURE CAREER IS A PRI EY STAGE 4 LEVEL - STUDEN DOING AFTER SCHOOL, PERF

Prinn, BSc, Teacher of Biology

Research Posters

Scan the OR code for access to all Research Posters on Padlet.



Class State Class Cracks

Use this as a template and personalise it

the maths behind music Sammy Li

How important is the understanding and regular use of mathematical vocabulary in improving a student's mathematical attainment and progress?

Claire Miles and Sarah Lengthorn

3 - 18 Music Curriculum Strategy

#best music department in the country

Peer Mentoring in athematics Improve Attainment?

As such, it seemed apt to dedicate some time and thought into how best to use the questioning I did in class to encourage further understanding and critical thinking within the Maths classroom.

wanted to investigate whether using TOK style questioning in the maths classroom encourage pupils to not only think more deeply about maths but about their own learning too. I wanted to investigate whether

I put up mathematical TOK thinking questions in my maths classroom e.g. "Is maths a

Method

language?" and "Are maths and art connected?*

Over the course of a week, many students had noticed this change and natural debates would emerge in the classroom.

As time progressed I gave students time in lesson to research and develop these ideas (as plenaries mainly) and

Results

was spontaneous, the 'result' is hard to quantify. However, the responses from my student questionnaire found that the majority of pupils enjoyed these diversions and everyone found them useful at putting maths, a traditionally abstract discipline, into perspective - which is curious as many of the debates got very abstract very quickly.

in in inion



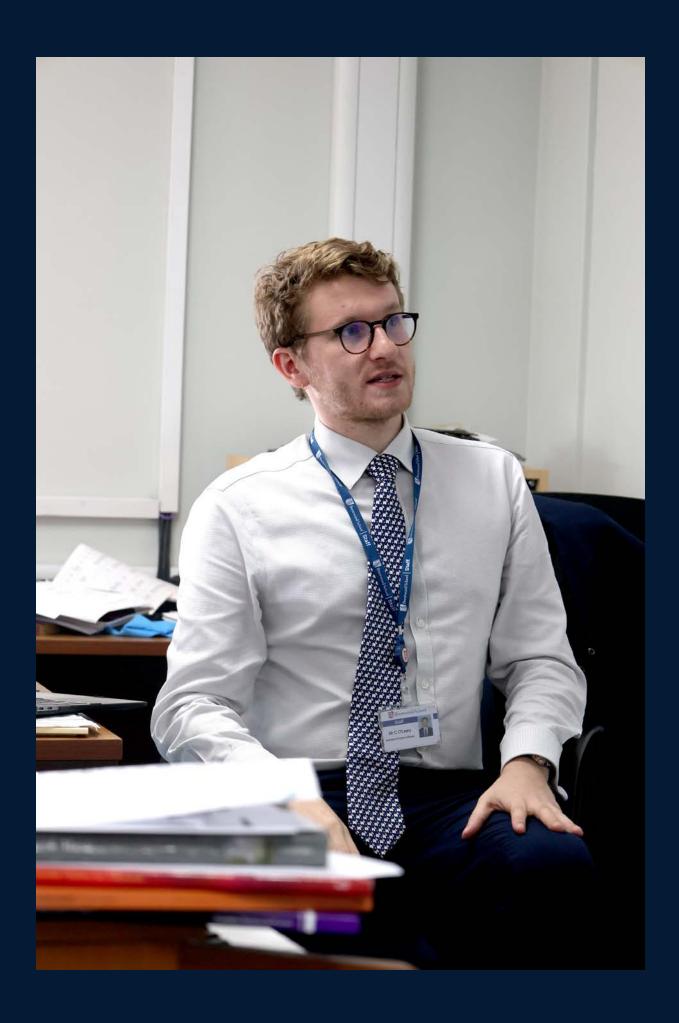
Conclusion

I will continue to implement these style of 'deeper understanding' questions in my classroom practice not to improve student outcomes in a examinable sense - but to encourage interest. I also think that this kind of exercise shows pupils how interlinked maths is to other areas of the curriculum and I think they recognise that better when they discover it for themselves.

How to get involved

As a school, we are working to create links with neighbouring schools and educational professionals. Our aim is for our Institute of Education trained facilitators to run collaborative projects and programmes with professionals from other educational settings. Our Ideas Fair will evolve into a platform for the sharing of innovative, bespoke practice not just from Brentwood School but also from the local educational community.

If you are interested in getting involved - either as a facilitator in the R&D programme, or to investigate Master and PhD support at the Brentwood school - please get in touch with Aisling Fahy, Head of Research and Development (agf@brentwood.essex.sch.uk).





Middleton Hall Lane, Brentwood, Essex, CM15 8EE 01277 243243 brentwoodschool.co.uk