



THE NORTON  
KNATCHBULL  
SCHOOL

# The Norton Knatchbull School

## Research Group Reports

### 2024 -25

*Things done well make the best memories*

SIR NORTON KNATCHBULL - 1637

## Research Projects at NKS

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During the academic year of 2024 / 25 , colleagues at NKS were offered the opportunity to lead a research group for a year as part of whole school CPD. This was a new venture for us on our school CPD programme, and we are pleased to have 11 colleagues who had interesting projects ideas to present to staff. Research group leaders pitched their ideas for projects, and then all staff were invited to collaborate on a project which interested them.

Once the groups were allocated, first meetings took place in July 2024. In total 5 more meetings took place over the rest of the academic year. The agenda and focus for these meetings was directed by the group leader. During this time existing research was identified and examined, control groups were established and research models designed. Staff were then able to develop their own resources and trial these within our school setting, providing feedback to their group lead.

The outcomes as you will see, have had an impact on teaching and learning, and build on our work with memory and metacognition, but not all projects are classroom based. Some have challenged expectations and behaviours within our school community and have directly linked into the EDI work we already carry out in school. Other projects have developed student and parental engagement and develop a greater sense of community and belonging within the school environment.

I would invite you to read the following reports from our Research Group Leaders and see for yourself what has been developed this year across the projects. It is exciting to see what has been achieved across a wide range of research titles, and how this might inform future work here at NKS.

## Research Groups

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### **1. How we can cultivate effective revision and study habits in neurodivergent learners?**

Tamara Baldwin

### **2. How can we enrich learning and raise achievement through a focus on Social and Speculative skills?**

Matt Dickenson

### **3. How can AI / IT help in Teaching and Learning?**

Matt Gowen

### **4. How can we improve parental engagement to positively impact behaviour?**

Sian Himsley

### **5. How can we create an anti-racist culture at NKS?**

Lewis Lamb

### **6. How do we transform NKS into an environmentally sustainable school?**

Valeria Martin

### **7. Teacher Burnout:Tackling the Hidden Workload**

Rebecca McKenzie

### **8. How can we close the Pupil Premium Gap? - With a particular focus on attendance and parent engagement**

Tom Snare

### **9. Emotional Intelligence In The Classroom - How Can We Make Our Students More Resilient And Ready To Learn, thus reducing unwanted behaviours in the classroom?**

Suze Somerville

### **10. What effect can modelling metacognitive strategies have on students' resilience and attainment at NKS?**

Fiona Thomas

### **11. How can we build a culture at NKS where misogyny and sexism are challenged through a rigorous behaviour system and equality driven curriculum?**

Sita Turner

# 1. How we can cultivate effective revision and study habits in neurodivergent learners?



Tamara Baldwin

## What were the aims of your Research Project?

The aims of my Research Project were to explore problems which may be encountered by neurodivergent learners when trying to study and revise and then investigate potential solutions. Ideally, I wanted to ask class teachers to gather information on their students, both neurotypical and neurodivergent and then try out some revision resources which might help them to revise more effectively. I was anticipating that it may take time to show improved academic results but was hoping that positive feedback from students would help guide us towards finding effective resources. These could then be recommended to all teaching staff.

## What are the outcomes or main findings of your Research Project to date?

I felt that the research that I carried out into the problems which neurodivergent students may encounter was effective. By sharing this with my group we gained a greater understanding of how many challenges students with autism, ADHD and dyslexia may encounter. This helped me to create a Study Skills questionnaire which was aimed at identifying what students may struggle with when trying to revise. It could also be used to give an indication as to whether a student may be autistic, have ADHD or dyslexia as often students may not have a diagnosed additional need. I am proud that as a group we gained a much greater knowledge of the ways in which neurodivergent students may struggle with resources designed for neurotypical students and how to offer a greater range of approaches to study.

My main findings from analysing the Study Skills of students from four classes ranging from Year 7 to Year 13 was that all students struggle with some aspects of revising, but that AEN students typically struggle with more compared to their peers. For example “Finding it hard to study things that don’t interest me” was a common problem identified by the majority of students within each class as was “Getting lost in my own thoughts” and “Getting easily distracted”. However, AEN students typically identified another four or five problems as frequently occurring, with one Year 10 student identifying all the problems described as frequent. By contrast, AEN students had fewer effective revision methods than their peers. Watching revision videos and answering past paper questions, not in timed conditions, were popular methods for both AEN and neurotypical students. For some AEN students this was all they identified as frequently using whereas a neurotypical student might frequently use mind maps, highlight notes, re-write notes and use flashcards in addition to this.

Through my research I also discovered that what we might think of as an ideal revision environment might not be at all suitable for AEN students, particularly those with ADHD. Students with ADHD can really struggle with a silent environment and focusing only on one thing. It may be more effective for them to be taking notes on a text whilst listening to a podcast that they know well, for example. I also found that dyslexic students work better with a holistic approach, so chunking information doesn’t help them to understand it better. Instead, one student described how he had the specification for each subject on his wall and rather than find this overwhelming it helped him to make sense of his learning.

## 1. How we can cultivate effective revision and study habits in neurodivergent learners?

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Whilst research and investigation of how students learn has gone well my other aim of developing resources to use in class has been much harder to achieve. Finding revision resources for neurodivergent students was a challenge and some of the resources I created could be seen as out dated or to similar to resources already used. I created a bank of resources for teachers to try with students but instead they chose to develop their own resources. This may have been more effective to help their classes progress, but it has meant it has been harder for me to evaluate the effectiveness of these resources. The resources were also tailored to the subject so not transferable for other teachers to use with their classes. It is also difficult to evaluate the effectiveness of the resources as we only had a short period of time to try them out and the main results for Years 11 and 13 will not be available until August.

### **Next steps – how could this project develop?**

Moving forward I would welcome the chance to share my findings generally with all staff. I feel that it would be beneficial to all staff to have an open SharePoint file where resources to help neurodivergent students to revise could be shared. This could also be discussed in department meetings with staff sharing best practice. I would also like to continue to work with the AEN department to share effective revision resources and would be happy to adapt any designed for younger learners for use with the Sixth Form. I also found that talking to AEN students in Sixth Form really helped me to find and create effective resources for them. I would like to continue this and also talk to younger students. Ideally trialing resources with younger students and monitoring their progress over a longer period of time could lead to quantifiable data to inform teaching in the future.

## 2. How can we enrich learning and raise achievement through a focus on Social and Speculative skills?



Matt Dickenson

### What were the aims of your Research Project?

The aim of the project was to adapt a model which has successfully been used elsewhere to support the development of challenge in learning, through a focus on social and speculative learning:

1. **Strategic, Social and Speculative learning skills** – to develop strategic skills (generally assessed in formal assessment) through a wider variety of means involving social and speculative learning behaviours and skills:

Strategic	<ul style="list-style-type: none"> <li>• Independent</li> <li>• Interested</li> <li>• Knowledgeable</li> <li>• Expert</li> <li>• Reflective</li> <li>• Literate</li> <li>• Numerate</li> </ul>	<ul style="list-style-type: none"> <li>• Precise</li> <li>• Analytical</li> <li>• Evaluative</li> <li>• Reasoning</li> <li>• Commentator</li> <li>• Critical</li> <li>• Practical/performative</li> </ul>
Social	<ul style="list-style-type: none"> <li>• Interdependent</li> <li>• Intuitive</li> <li>• Empathetic</li> <li>• Collaborative</li> <li>• Vocal</li> </ul>	<ul style="list-style-type: none"> <li>• Responsive</li> <li>• Active</li> <li>• Self-aware</li> <li>• Articulate</li> <li>• Assertive</li> </ul>
Speculative	<ul style="list-style-type: none"> <li>• Inventive</li> <li>• Curious</li> <li>• Risk-taking</li> <li>• Experimental</li> </ul>	<ul style="list-style-type: none"> <li>• Inquisitive</li> <li>• Observant</li> <li>• Questioning</li> <li>• Creative</li> </ul>

2. To address ways in which teachers may **short-circuit the challenge in learning**
3. To consider what **able, but dependent learners** may look like and how we might react to the issues raised. This builds on research into learned cautiousness, which may affect students' ability to engage with challenge in learning – particularly in less familiar tasks and settings
4. To generate **shareable cameos of strategies** around what colleagues are doing to encourage social and speculative learning, either through their current practice or because of their involvement in this project

### What are the outcomes or main findings of your Research Project to date?

We found that:

- (i) the 3S's model of works flexibly as a lens through which colleagues can observe their practice and students' behaviours – there was no need to consider the strategic skills in any formative sense, which meant that dialogues focused on '*what is distinctive about what works?*', enabling a positive approach
- (ii) recent work on the curriculum at NKS has meant that there may be little need to focus on whether teachers are actively or tacitly **short-circuiting challenge**, although the question may better be asked of students to explore their perceptions
- (iii) the questions raised around learned cautiousness broadened into wider conversations about:

**What skills/dispositions do students need when they arrive at a starting point – Year 10, 12?** What are the gaps? How do we identify and close these gaps? We looked at a variety of tools to assess students in terms of attitudes/traits, such as resilience and a draft of a rapid assessment questionnaire, but this had not been piloted by the final session. Further work could be done to carry this strand forward.

How do these skills to develop across a scheme of work to **enable** our students to be **(i) exam-ready** (to measurably achieve) and **(ii) next stage ready** (ready in terms of both of subject -specific and wider

## 2. How can we enrich learning and raise achievement through a focus on Social and Speculative skills?



needs of the next stage of their development - personally and academically). There is clear agreement that despite the exam-readiness measured through successive years of progress at Key Stage 4, there are a range of issues/factors that which amount to students not being next-stage ready, to flourish in the face of increased challenge at A Level, for example in terms of literacy skills, depth of prior knowledge/ experience and critically, the capacity to operate independently.

**What works in practice?** Rather than there being another set of top-down principles of the kinds of strategies we were looking at, we started from a set of key phrases and ideas, which colleagues expressed in their own ways to demonstrate *what is distinctive about approaches that work in their classrooms*, for example:

- *bringing the big ideas of the subject to life* - the importance of *authentic learning tasks/contexts* – e.g. original sources/ those with authority, real examples, deriving theories and models, using conceptual frameworks
- Teachers *taking risks earlier*, to give students the chance to develop this capacity for themselves
- Making sure that there is *no knowledge without difficulty* – e.g. don't come to the rescue before students have experienced any distress (*create cognitive conflict*)
- Equipping students with the capacity and confidence to cope with the unknown – *knowing what do to do when you don't know what to do*
- *Make learning memorable (or expect them to forget)* – from bigger picture discoveries to the importance of practice and iterative progress, there's nothing quite like a 400-year-old motto to shake up the present

These positive approaches start from what colleagues are, in most cases already doing and demonstrate distinctive features of what challenge looks like, current teachers' practice; and the needs of NKS students. And how a focus on social and speculative learning can have a demonstrable impact on formal strategic skills and achievement. The three cameos of practice below, together with some of *their distinctive features* illustrate this:

Science 'Take more risks earlier' - to explore how social learning can enrich a didactic subject, so that Year 7 students can be vocal and active, learn to be articulate and be intuitive despite little prior knowledge. A practical from Year 11 was used to test branded vs. own-label antacid drugs, with word equation work moved from Year 8 into Year 7 – six lessons of low-stakes risk-taking, before recording in writing. Students became noticeably more proficient in practical's, confident in their use of language and in challenging each other.

Economics 'No Knowledge without difficulty' and 'the big ideas are live' - to coach more sophisticated use of macroeconomic models and teaching of evaluation skills, to stretch thinking beyond evaluation as a series of 'however' points. Four models are returned to repeatedly over two weeks to develop understanding and evaluation of expansionary economic policy. Different policy choices are fed through the models to encourage questioning, comparison between strategies, subject and formal language, and chains of reasoning to make abstract ideas into students' own thoughts.

History 'Negotiation of meaning' - to interpret cartoons, through a repeated process of deconstruction – using information such as caption and context, combined with close reading of what is portrayed – 'nothing is wasted or accidental' – bringing on students' ability to draw these elements together to make inferences in order to develop their ability to respond positively and confidently to one the more challenging contexts they are presented with in GCSE exams.

### Next steps – how could this project develop?

There is a clear overlap between this piece of work and the development of the new KnatchBacc, with the aims of NKS400 in relation to the character and dispositions of our students, whether through the 3S model or just on social/speculative elements, which strongly cohere the emphasis on creativity. Elements could be woven into learning walks, into personal CPD for colleagues with exam classes, or those wishing to explore high achievement from a different direction to what which is offered by traditional professional development in relation to the more able.

### 3. How can AI / IT help in Teaching and Learning?



Matt Gowen

**Aims:** To explore IT and/or AI technologies to support teaching and learning

**Subtext:** To find ideas that could be shared and used by other staff in the future

#### **What are the outcomes or main findings of your Research Project to date?**

Each member of staff devised their own ideas, used meetings to bounce ideas off each other and share their findings:

#### **Using AI to create model answers and other teaching resources (AB)**

Example: using CoPilot to generate model solutions to questions to share with students.

*Success was varied with some good responses but without further prompts did not appear to be able to tune to the level of responses needed for different types of students, GCSE or A-Level. Responses could be over-wordy or too brief. Our limited CoPilot does allow documents to be uploaded, so uploading examples or even mark schemes offers some refinement to make it more likely the examples are of the right level. The key is to add documents, perhaps examples, and add additional guidance to the prompt. As with all AI output, the results need to be checked to see if it can be used with students, but potentially reduced workload compared to finding or writing your own resource.*

#### **Using AI tools to improve grade prediction and results analysis (MJG)**

Example: taking real “mock” and “final GCSE” data to learn the patterns and correlation between those pieces of data and use this to produce individual students “most likely” predicted grades.

*Existing model used in CS which takes known mock → exam data and uses this to predict student most-likely outcomes work for most students taking a linear path through the qualification, but can be flawed for outliers who improve drastically or deteriorate drastically during a course. The hope was that AI models could pick up these trends and produce a better “holistic” grade for students*

*Initial tests were good and produced plausible results. However, on closer inspection it was clear that the actual data produced by the models were “made up”. It exposed the problem with language models in that they are good at producing results that look plausible but it’s not good at numbers.*

*Next steps: see if it’s possible to install a local “analytical AI” model and train with existing data to produce better results.*

#### **Producing topic gap analysis automatically from assessment data (PM)**

Example: taking a student’s end of topic tests and generating topic/category/skill based target summaries for each student.

*Pivot tables worked well to auto analyse the data for a sample group of students in Year 11. Exported reports to individual documents and shared through OneDrive/Sharepoint. 11D gave this information an enthusiastic reception. Example video of the data being imported is here: [click](#) and another for analysis being used: [click](#)*

#### **Producing lesson scenarios for class discussions and assessments using AI (AC)**

Examples: creating engaging scenarios and resources across various school subjects. For instance in history, immersive narratives that bring historical events to life, helping students better understand and connect with the past. In science, creating interactive simulations and experiments that illustrate complex concepts, making learning more hands-on and intuitive. For literature, it can assist in developing creative writing prompts and

### 3. How can AI / IT help in Teaching and Learning?



analysing texts, fostering critical thinking and creativity. In mathematics, step-by-step problem-solving guides and generate practice exercises tailored to different skill levels. For RSE/PSHE, generate starter tasks and scenarios to support class discussion.

*By leveraging Copilot AI, teachers can enhance their teaching practice and provide students with dynamic, personalised learning experiences. Given a prompts such as “Generate a short scenario on the dangers of drink driving. Come up with three questions of increasing difficulty to go with the scenario.”. AI Response: came up with a suitable example scenario involving a 25 year old called John, and three basic, intermediate and advanced questions that could be used by students.*

*Prompts can be stand alone, or can be based on material uploaded – so can generate assessment questions from the content of a video link to YouTube! Overall, this is an extremely flexible way to produce alternative learning materials and variety for students, saving teacher time.*

#### **Using video content to demonstrate and model coaching points (GB)**

Example: breaking down the techniques into different stages and highlighting the progression of skills.

*Video content was created using an iPad as a camera and then VLC/PowerPoint to narrate over the video by inserting a screen recording, then exporting the final video – this was a lockdown video technique available in our [NKS Staff Guides](#) video playlist. Videos can be listed on SharePoint for teacher/student use and shared. Video editing facilities in school would avoid the need to trim / basic edit the video using PowerPoint.*

#### **Differentiation using AI (SG)**

Example: use of CoPilot and ChatGPT to create differentiated tasks for students during Year 11 revision.

*Students felt the tasks were helpful, but were not always linked to our AQA specification. The solution is to feed in more information about the specification to guide the AI to target the right information. This generated more suitable results and more realistic-to-exam questions and tasks.*

#### **Assessment and student tracking (KI)**

Example: PE staff recording 7-9 core assessments, data used formatively when activities repeat, help reporting to parents, advising on options and selection of teams for events like the English Schools Athletics

*Recording of data was focused in Excel, but exploring the use of PowerApps to try to develop a bespoke application to avoid teachers having to navigate Excel, a better front-end that can be used on devices “in the field”.*

*The development of the app has been worked on but is not developed enough to be useable. For future development. [Link to image of assessment data](#)*

#### **Generation of low-stakes question content for lessons (LT)**

Example: Copy a section of text and paste into CoPilot and describe what you want. For example, taking a list of workshop tools, asked to design a set of 20 questions using the tools as missing words.

*Was hoping that AI would be able to take images as sources, particularly images with text but CoPilot could not do this reliably (yet!). The key to successful results is giving as much source material as possible – CoPilot was excellent in turning text from the AQA textbook into a series of questions as long as you ask it clearly what you want it to do. I could use the output from AI as a source for MS Forms quizzes. To improve my form writing I asked CoPilot to generated possible mistaken ways of writing the same list of words and I was able to use that list to add to the possible wrong spelling options of the same form. You're welcome to see the form [click here](#) 9*

## 4. How can we improve parental engagement to positively impact behaviour?



Sian Himsley

### What were the aims of your Research Project?

The initial aim of the project was to look at ways of improving parental communication in an effort to improve behaviour and attainment in the classroom. This was based on my personal work during my NPQLBC and fundamentally on research from the EEF, which suggests that strong parental communication can improve student outcomes by 3 months. Whilst the majority of supporting research is based in primary schools, it seems logical that a more open line of contact between staff and parents will translate to better outcomes for students in secondary schools.

It was my personal belief, in work that I had undertaken with my own classes, that keeping parents more in the loop would translate to an improved work ethic from our young people. It ensures openness between all parties involved in the students teaching and allows for quick intervention when problems arise.

### What are the outcomes or main findings of your Research Project to date?

As a group, our initial few meetings led to some very in-depth discussions as to what was already successful within the school and our own teaching, and what we felt needed further work. We identified a lot of areas that we felt could be improved – but had to be slightly more realistic on what could be achieved. Communicating with parents takes a lot of time, especially to ensure that communication is effective, and this was our biggest sticking point throughout the year.

*‘...meaningful interaction with parents can have a powerful effect on student outcomes. It has made me tailor my communication with parents to address more individual needs’*

We each identified a personal way that worked to allow us to effectively communicate with parents. Some of us sent regular email updates, some sent personalised emails to praise outcomes, whilst others posted more postcards and invited parents to school for sessions.

All of these methods required dedicated time to really sit down and express the correct intention with our communication. A personal objective for me was to ensure that, along with praising students more consistently – I was being honest with parents and carers where behaviour fell below expectation.

No matter the method of communication chosen, we have all received excellent feedback from both parents and students. I focussed on one specific class – giving termly overviews and study resources, before an update at the end of term. This allowed parents to have access to support for their young person but also allowed me to tackle any issues I was having in a timely and productive manner. I saw significant behavioural and attitude improvements throughout the class (and am hoping for some positive outcomes from their exams!). Other members of the group saw significant improvements in student engagement as a direct result of parental communication. Alongside this they were able to draw on a huge wealth of knowledge and skills that the parents were able to provide (this is a very subject specific benefit!)

## 4. How can we improve parental engagement to positively impact behaviour?



### Next steps – how could this project develop?

When the project started, we expected an increase in dialogue between parents and teachers to be well received but were hesitant to impact all parties with this. A positive that occurred along the way was the scaling down of emails from the school in general – giving a wider scope to approach communication on a more one-to-one level. We all accepted that it would take time on our part to establish routines, send emails and postcards, and meet with parents. One suggestion we hope to put forward is allocating specific time within the directed time budget to allow for parental communication. Further consideration of the impact of comments in reports – especially those that are from ‘banks’ is needed. Whilst we are unable to remove parents evening in favour of targeted communications, are there better ways of holding them? (length and quantity of appts as well as follow up requests makes it difficult to have valuable conversations)

It is difficult to quantify the outcomes, as improved engagement to impact behaviour is fundamentally very subjective. What is noteworthy though is that with one member of staff – ALL parents who were communicated with further opened dialogue about their child's achievement. In Y11, 71% of parents engaged with communications and expressed appreciation for time and resources provided. This is a huge outcome as currently only 48% of the studied year 11 class have parental logins on satchel, with only 1 or 2 parents regularly logging in.

## 5. How can we create an anti-racist culture at NKS?

Lewis Lamb



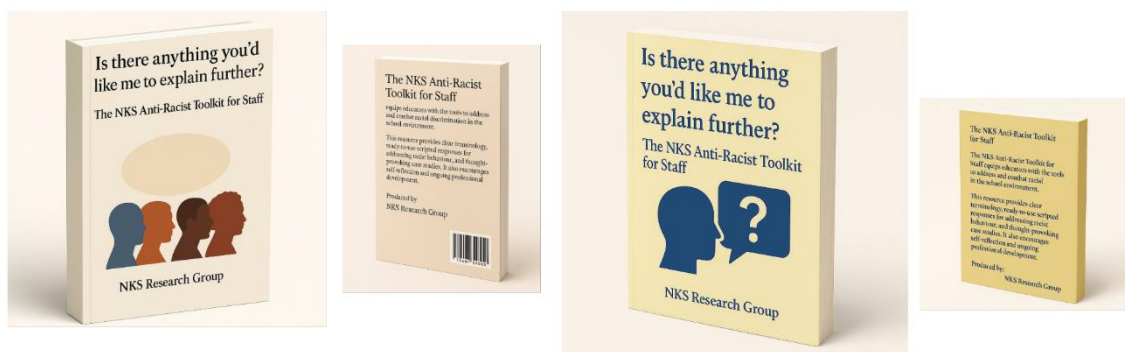
### Research Project Reflection – Anti-racism

#### What were the aims of your research project?

The project aimed to equip staff at NKS with the confidence, shared language, and cultural understanding to challenge racism effectively. We focused on surfacing the lived experiences of our students, encouraging open dialogue around EDI, and developing a practical, context-specific toolkit that reflects our school's values.

#### What are you pleased with or proud of that you achieved?

I'm proud of the collaborative spirit the group fostered. Staff were open, reflective, and willing to engage. The final toolkit is shaped by authentic voices and real scenarios, and the addition of a clean visual identity and 3D mock-up helped give the resource clarity and accessibility.



## What will the toolkit look like?

#### What are the outcomes or main findings of your Research Project to date?

Many staff want to act but lack the confidence or language to respond effectively in the moment. Phrases like *“Do you understand? Is there anything you'd like me to explain further?”* proved empowering but felt most appropriate post lesson (teaching staff) as teachers aim to address incident as wrong whilst keeping the pace of the class. We also learned that structured, shared responses help reduce hesitation and uncertainty in challenging racist behaviour.

## 5. How can we create an anti-racist culture at NKS?

Lewis Lamb



### Has this changed from your original intentions/expectations?

Yes. We expected to produce a policy-adjacent framework, but it evolved into something far more human and usable—rooted in empowerment, not compliance. It became a tool to support growth rather than just reinforce rules.

### Were there any unexpected outcomes?

I didn't anticipate how readily staff would share personal stories or how much value design elements like visuals and consistent formatting would add. This helped the resource feel 'lived in' rather than imposed.

### How could this project develop?

The toolkit could evolve into a whole-school resource with termly CPD refreshers, subject-specific adaptations, and case studies for tutor time or PSHE. It could also be made available both physically in the school library and digitally on the school network—ensuring it's accessible to both staff and students. This would reinforce its educational, functional, and purposeful nature across the wider school community.

### How could we build this into the School Development Plan or department work?

Departments could embed toolkit reflections into meetings or curriculum planning once per term. SSMs could adapt it for mentoring support, tutor time resources, or induction for new staff. It aligns closely with behaviour, wellbeing, and staff development priorities.

### How can this be quantified?

- Increase in incident reporting and confident handling
- Staff surveys tracking confidence and response effectiveness
- Feedback from line managers and departments on usage
- Monitoring digital downloads or physical check-outs from the library

### How can this be considered when developing future strategies or policies?

The project sets a precedent for how meaningful change can come from staff voice, student experience, and collaborative design. Its principles—accessibility, clarity, and lived experience—can underpin future policy work in behaviour, inclusion, and curriculum development.

## 6. How do we transform NKS into an environmentally sustainable school?



Valeria Martin

### What were the aims of your Research Project?

The aims of the Sustainable NKS project were to start the process of implementing recycling and promote a culture of care and responsibility in line with the Knatch Bacc pillar of Community.

Notable achievements:

- We have changed refuse collection supplier from Veolia to CountryStyle Recycling
- Site team have started to introduce new bins for Dry Mixed Recycling (DMR), which is separated from general waste
- Initial discussion / briefing of Cleaning Contractor took place
- School-wide campaign of Sustainable NKS assemblies to all year groups will start on 5<sup>th</sup> June
- The new catering contractor is on board with NKS sustainability goals for reducing food waste and a separate food waste collection in the kitchen area

### What are the outcomes or main findings of your Research Project to date?

- The key challenges are effective communication and information sharing to all stakeholders, as well as the practical aspects of promoting a caring and responsible attitude towards waste handling
- The original intention of the project scope has extended due to the DfE strategy, which states: *“By 2025, all education settings will have nominated a sustainability lead and put in place a climate action plan”*. It also sets a target to reduce greenhouse gas emissions by 75% by 2037 across all education settings.
- DfE has outlined guidance on the "5 C's of Sustainability"
  - Clean,
  - Community,
  - Culture,
  - Care,
  - Corporate Governance

This presents a comprehensive framework to guide us towards a more sustainable 2030 and beyond

## 6. How do we transform NKS into an environmentally sustainable school?



Valeria Martin

### Next steps – how could this project develop?

- NKS has issued an updated policy of Energy and Sustainability Management
- Key points from the above policy:
  - 5. Food and Catering
    - Commit to using locally-sourced food wherever possible
    - Monitor KPIs in agreement with catering provider to ensure local sourcing, waster reduction and student engagement
    - Promote pupil’s understanding of food and where it comes from
  - 6. Waste and Recycling
    - We will have clearly labelled bins throughout the school for recycling, food waste and general waste, and posters on how to use them

## 7. Teacher Burnout: Tackling the Hidden Workload

Rebecca McKenzie



### What were the aims of your Research Project?

- Created a safe, collaborative, and open environment where all team members felt comfortable contributing honestly.
- Successfully collected and analysed questionnaire data to identify key trends in cognitive fatigue among teaching staff.
- Identified a higher level of decision-making fatigue and cognitive overload among individuals with specific conditions, allowing the group to focus interventions accordingly.
- Chose and began trialling CBT-based strategies to support staff proactively.
- Maintained alignment with the original goals of the project, despite challenges related to time and resource constraints.

### What are the outcomes or main findings of your Research Project to date?

- Teachers generally report moderate levels of emotional, decision-making, and cognitive fatigue.
- Teachers with additional needs (such as mental health conditions, physical conditions, or learning difficulties) report higher levels of fatigue and cognitive overload.
- This points to a particularly at-risk group who may benefit from specific strategies or workplace adjustments.
- Cognitive fatigue can lead to a range of negative outcomes including reduced decision-making capacity, stress, burnout, and diminished job satisfaction.

Has this changed from your original intentions / expectations when you launched the research group?

- The core aims of the research—measurement, identification of at-risk groups, and strategy development—remain consistent.
- There has been a shift toward more proactive and targeted strategy development based on findings (e.g., CBT).

Were there any unexpected outcomes to your Research Project?

- The level of openness and honesty from participants in both the group and the questionnaire was higher than anticipated, contributing to richer data.
- CBT emerged as a strong, evidence-backed strategy supported by Occupational Health.
- The project highlighted the value of diversity and collaboration—different perspectives have strengthened the research and outcomes.

## 7. Teacher Burnout: Tackling the Hidden Workload

Rebecca McKenzie



### Next steps – how could this project develop?

- Continue testing CBT strategies, gathering qualitative feedback from staff.
- Explore adaptation of these strategies for wider school use.
- Use findings to advocate for broader, evidence-based workplace well-being strategies.

How could we build into the School Development Plan, or work on within departments or teams, such as SSM's?

- Include a dedicated strand in the staff well-being section of the School Development Plan (SDP), specifically addressing cognitive fatigue.
- Introduce CBT-informed approaches through CPD, team meetings, or staff development initiatives.
- Encourage SLT and department leads to develop systems that reduce decision making fatigue, of which there are already things in place such as: shared planning, prioritised marking policies.

How can this be quantified?

- Re-administer the questionnaire post-strategy implementation to track changes in reported cognitive fatigue.
- Collect qualitative and quantitative feedback on the usefulness of the strategies trialled.
- Monitor additional indicators such as staff absence, engagement, or retention data where possible.

How can this be considered when developing future strategies or policies?

- Embed findings into well-being and workload management policies.
- Provide training or toolkits for line managers on recognising and responding to signs of cognitive overload.
- Use evidence to support more sustainable working practices, particularly for staff with additional needs.
- Ensure future policies take into account the emotional and cognitive load of teaching—not just physical workload.

## 8. How can we close the Pupil Premium Gap?

With a particular focus on attendance and parent engagement

Tom Snare



### What were the aims of your Research Project?

The two main aspects of this project were to improve Pupil Premium attendance and parental engagement. Over the first two terms we conducted research looking at the systems other schools have in place to support their PP students and discussed how these may work in our setting. Once we had identified the steps we planned to trial, we organised a pilot group of 15 students from KS3 to run the programme with.

Following the initial sessions, we realised that more than a simple reward system was required to improve Pupil Premium attendance. Assigning each student a mentor from the research group and building in time to meet, meant that the students had an additional point of contact, to prevent issues escalating to missed time in school.

The parental engagement aspect went beyond the 15 students and the main aim of this was to identify PP parents who had not previously booked a parents evening appointment and provide extra support to allow them to access the system.

### What are the outcomes or main findings of your Research Project to date?

Our 15 students became 14 when one parent removed their son, but we were still able to gain a valuable insight into the role rewards and mentors can play in improving attendance. The scheme ran over terms 3 & 4 so we could use the attendance data from terms 1 & 2 as a base point.

The reward element worked through a tiered system where students received rewards depending on the extent that they beat their targets. The initial system as explained to parents and participants can be seen on the right. However, as the challenge progressed, the rewards were simplified. Improving attendance once earned five queue jump passes, those improving twice received a £10 Amazon voucher, and achieving 100% attendance in either term 3 or 4 earned a place on the reward activity.

*Rewards will be issued as follows:*

*Any student who improves on their average attendance from T1 & 2 can choose from the following rewards:*

*A one-week 'queue skip' pass for lunch.*

*Chocolate treats.*

*Additional food in the canteen.*

*Any student who improves their attendance in both Terms 3 & 4 will receive a £10 voucher of their choice.*

*In addition, any student who achieves 100% attendance in either T3 or T4 will earn a place on a reward trip in T5.*

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Only one student failed to improve their attendance in either term 3 or 4, with 8 improving their attendance in both.

In total, 11 students received the queue jump passes, eight earned the £10 voucher and eight took art in the reward activity when a gaming truck game in.

Student feedback has been mixed, with some students acknowledging that the incentives did play a role in their improved attendance and others concluding that receiving rewards was great but not motivating.

One parent who acknowledges that in general their son has good attendance commented - ***“It has given him pause for thought when he just has a minor illness or feels like he’s coming down with one to push himself a little further and manage minor symptoms as a result is becoming very proactive and resilient.”***

One aspect that could be further developed would be broadening the parental engagement aspect. In future, earlier contact could be made with parents to arrange their parents evening appointment and lifts could potentially be provided to allow parents to attend events at school – parent workshops etc.



### Next steps – how could this project develop?

To become part of systems at NKS, any future reward scheme would need to be rolled out at the start of the year with clear goals. As we launched in T3, we took T1 & 2 attendance as the benchmark, but the system would better work with clear targets laid out in September.

When considering future strategies around Pupil Premium attendance, it is important to have a range of systems in place as we found that one strategy does not work for all. Exploring other methods to improve attendance in addition to a reward programme, will ensure all students are being supported to improve their attendance.

## 9. Emotional Intelligence In The Classroom -

How Can We Make Our Students More Resilient And Ready To Learn, thus reducing unwanted behaviour in the classroom?



Suze Somerville

### **What were the aims of your Research Project?**

To provide students with strategies to manage their emotions and be able to regulate themselves in the classroom thus reducing the number of behavioural incidents.

### **What are you pleased with, or proud of that you achieved?**

My research idea was met with questions around time constraints for teachers with already heavy workload, on how they could possibly deliver this during lessons. I was determined to create this resource and tweaked the original idea from teaching these strategies in lessons when need arose, to creating an E-Book linked to a Youtube Channel presenting all the strategies so the students could independently resource this information to help their wellbeing, when they need it.

### **What are the main findings of your Research Project to date?**

The outcomes so far have been met with mixed feedback from students. The thing about emotions is that no two people think and feel the same so what might work for one, may not work for another but with a selection of different strategies, there is something for everyone. We selected 30 students across all year groups to trial the resources both in their own time, and during a lesson in the computer room to log on and have a look around, try the strategies, watch the videos and access the links to further signposting. Analysing feedback from the research was fun but raised some thoughts and questions. 21% tried at least 3 strategies or more with success, 32% noticed feeling relaxed straight after. 31% watched all the videos and found them easy to watch and follow. 39% found the E-Booklet helpful and liked that there were direct links to support/services. Feedback on what else they would like to see in this resource was... more information and support about loss and grief (students shared that when they lose someone close there is not much if any support and empathy in school), sexuality and identity (students didn't feel they could talk about this, even though it causes them anxiety and low esteem), feeling alone (students asked how do they cope and where can they go if they feel alone during the school day), how to control themselves and have discipline (this came up several times and most would like help around self-control and anger).

### **Has this changed from your original intentions / expectations when you launched the research group?**

Yes, originally we were going to teach strategies in the class when the need arose (e.g. a calming technique to settle an energetic class, an energising strategy to wake everyone up etc) but it is actually better to have one resource with one clear instruction rather than it being disseminated several different ways losing its effect in the process. The change has actually worked out better and the students have full access when they need it 24/7.

## 9. Emotional Intelligence In The Classroom

How Can We Make Our Students More Resilient And Ready To Learn, thus reducing unwanted behaviour in the classroom?



### **Were there any unexpected outcomes to your Research Project?**

Yes, I was surprised at the diverse responses from students and their brutally honest feedback like 'that strategy is annoying and doesn't work.' Another unexpected outcome was having the extra face-to-face meeting with students and hearing their needs around Wellbeing and mental health and how open they were in the group to talk about what we might need to provide as a school. There seem to be many students who feel lonely or confused around identity and there are bereaved students who are desperate for support. When questioned further it was a need for support that is not counselling but something in-between, like a bereavement support group.

### **Next steps – how could this project develop?**

Students have given some thought into what topics they would like to see covered so I would like to continue with this resource making it available to NKS students which I plan to update regularly. We could email all students with the E-Booklet and links to the YouTube channel and perhaps they could be given time in either an IT lesson or PSHE to explore support available.

### **How could we build into the School Development Plan, or work on within departments or teams, such as SSM's?**

We could train Teaching assistants, SSM's, School counsellors, Exam invigilators, support staff etc... to go through these strategies with students who are in emotional distress. We could create a new role to head up Student Support and Wellbeing (SSW) and ensure all students know where they can go, how they can access wellbeing support and signposting both online and to services. We could run bereavement support groups, support groups to tackle loneliness, friendship issues, anger management and self-control creating tailor-made interventions to support our student wellbeing as part of healthier school ethos.

### **How can this be quantified?**

Simple... increased confidence, fewer outburst, more self-control, happier, healthier (both physically and mentally) students would be a way of quantifying.

### **How can this be considered when developing future strategies or policies?**

When students join NKS on the enrolment form we could explain that as part of the student's wellbeing we offer support in the form of the E-Booklet, PSHE related topics learnt in lessons, state we may refer student for support if it is felt needed. We could build this into our policies for a healthier student body.

## 10. What effect can modelling metacognitive strategies have on students' resilience and attainment at NKS?



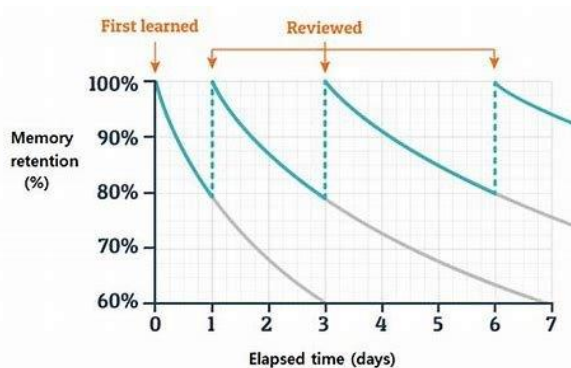
Fiona Thomas

### Research Focus

Our research group explored the role of metacognition in enhancing student learning, with a particular focus on how modelling metacognitive strategies can improve both resilience and academic attainment. We aimed to equip students with more effective thinking and revision skills, ultimately leading to improved assessment outcomes.

There is substantial evidence supporting the effectiveness of metacognitive strategies. According to the Education Endowment Foundation (EEF) Teaching Toolkit, students who are explicitly taught metacognitive skills can make up to seven months' additional progress compared to their peers.

After group discussions, we selected **spaced practice** as our primary strategy. This approach was chosen for its ease of implementation across our subject areas—Maths, Science, and Design Technology—and its minimal impact on teacher workload. Spaced practice, also known as distributed practice, involves spreading learning over time through multiple short sessions, rather than massed practice or cramming. This method is known to enhance long-term retention and recall.



### Implementation Strategy

We introduced the following changes to support the use of spaced practice:

- **Adapted “Do Now” activities** to include questions from “last week, last month, and last year” rather than focusing solely on the previous lesson.
- **Delayed homework tasks** by several weeks to encourage spaced revision.
- **Explicitly taught the concept of spaced practice** to experimental groups, encouraging students to apply it in their independent revision.

## 10. What effect can modelling metacognitive strategies have on students' resilience and attainment at NKS?



### Findings and Outcomes

We collected and analysed assessment data from experimental groups, comparing their progress to year group averages before and after the intervention.

- **Year 11X** showed a statistically significant improvement. The class average increased by 4% more than the year group, moving from the 52<sup>nd</sup> to the 67<sup>th</sup> percentile.
- **Year 9D and 9H** also outperformed the year group average, improving by an average of 3.6 % more. The group's mean mark increased from 31<sup>st</sup> to 36<sup>th</sup> percentile compared to the year group.
- **Year 10Y1** showed a modest improvement, increasing from the 15<sup>th</sup> to the 17<sup>th</sup> percentile.
- **Year 8Bu and 8H** experienced a slight decline relative to the rest of the year group. (33<sup>rd</sup> to 31<sup>st</sup> percentile)

It is important to note that this was a small sample, with several confounding factors which may have influenced the results. Most experimental classes were shared by more than one teacher for their subject, limiting the opportunity to embed spaced practice in lessons. In addition, the time frame was relatively short to lead to a lasting change in the habits of students.

We also attempted to analyse data from the Metacognitive Awareness Inventory (MAI). However, the second round of responses was significantly smaller than the first, reducing the reliability of the comparison. No statistically significant change was observed. However, the "Planning" and "Information Management" scores, most relevant to spaced practice, increased from 3.7 to 3.9 and from 6.6 to 6.7 respectively, on average for the students that completed both surveys.

### Next Steps and Recommendations

Although the experimental data did not consistently highlight strong gains, the broader evidence base supports the effectiveness of spaced practice in improving memory and learning outcomes.

To build on this project, we propose the following:

- **Model effective revision techniques** more explicitly in lessons, encouraging students to revise over extended periods prior to assessments.
- **Distribute revision lists earlier** to allow students to revisit content multiple times before test.
- **Embed regular retrieval quizzes** into schemes of work to reinforce older content and help students make connections across topics. This can be made quicker using AI.

## **11. How can we build a culture at NKS where misogyny and sexism are challenged through a rigorous behaviour system and equality driven curriculum?**



Sita Turner

### **What were the aims of your Research Project?**

Our aim for the research project was to look at misogyny and sexism in single sex grammar schools, considering how our practices and policies fit with other similar settings, and considering what the issues are within our own school community.

For the year that we have been working on this, we have achieved a more profound understanding of the challenges that the pupils and staff of both sexes face in this school. I am proud of the fact that through our findings, we have been able to put immediate support in place for sixth form girls by creating clearer and safer channels of communication, that allow them to share their experiences without fear of recrimination.

I am pleased that the research has been able to inform school policy and that we have been able to look at the issue holistically and respectfully to ensure that everyone is well informed of the issues and potential consequences of ignoring misogyny and sexism. This has been helped by the sharing of resources from group members, which has allowed our research group to delve deeper into the more nuanced issues that arise from or contribute to misogynistic attitudes and behaviours.

### **What are the outcomes or main findings of your Research Project to date?**

The main take away from the research project is that small change is possible and leads to much bigger overall culture shifts and positive change. It has also become apparent through attending various training sessions that NKS demonstrates good practice in its response to EDI issues such as misogyny and sexism and we are in a good position to lead by example and share our work with other schools and educational settings. However, this should not lead to complacency and as with any school wide focus, it has highlighted some of the more insidious attitudes that exist in our school community, some of which we have been able to tackle as the year has gone on.

Specific examples of things that our research group has identified and changed are:

#### The Reporting Process for Sixth Form

It became clear through the surveys that some sixth form girls did not feel safe and some of the boys felt as though they did not know how to speak out against misogyny when they witnessed it. This has led to termly SLT meetings with representatives from the sixth form girls to discuss any issues and to work through solutions together. There is now a clearer route to anonymous reporting in the sixth form and the students have been clearly shown what aspects of the personal development curriculum focus on misogyny and sexism in each year group.

## 11. How can we build a culture at NKS where misogyny and sexism are challenged through a rigorous behaviour system and equality driven curriculum?



Matt Pinkett

Not only did members of the research group undertake specific training with Matt Pinkett, but the school used his expertise to train students and staff so that everyone was clear around expectations for behaviour around sexism and misogyny. This sent a clear message that the school would not tolerate behaviour of this kind and was useful to empower staff to challenge it.

We also looked at Borden Grammar School who had recently rewritten their school development plan to focus on the issue of masculinity and misogyny, using Matt Pinkett's book 'Boys Don't Try'. In taking this one step further and having Matt come into school, we were able to involve students in the conversation and make them aware that this was a priority.

We have also taken the UK Feminista pledge to keep this a priority in the school (more about this below). If anything, the process has changed my mind about the way I view experiences in school and I would like to be able to demonstrate our good practice further afield.

### **Next steps – how could this project develop?**

Ultimately our intention to make NKS a safer and more inclusive place for women and girls is the same. For that to work, our findings and the material we have gained from various training sessions needs to be part of an ongoing conversation that doesn't die with the research project.

Misogyny has already been made a priority in the 2025/6 school improvement plan and with this will come a clearer vision of how we develop the research that has been conducted this year. We will also be applying for the UK Feminista accreditation award for schools who demonstrate excellent practice in tackling misogyny. Having looked at the criteria needed to achieve this, I am confident that we will be awarded as a school.

We have worked with SLT to develop the scripted responses and would like to spend more time looking at how we respond to, and sanction behaviour related to misogyny and sexism in our own behaviour policy. This could mean offering SSMs and Heads of Years more targeted training in how to deal with and support students who display worrying behaviours that are linked with misogyny and sexism.

Finally, we ran out of time to properly look into the curriculums to see how this could be embedded into lessons in a positive way, linked with other EDI measures. We hope this will form part of the School Improvement Plan next year.

Notes:

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Named staff of The Norton Knatchbull School.  
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