

Issue 2 | Summer 2016

ANTHECOLOGY



Lesson Study Journal
SAMUEL WHITBREAD ACADEMY



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FOREWORD



Anthecology, the study of pollination; how flowers and their buzzing pollinators interact. Before you lies a rich collection of ‘pollen’. This year’s products of blooming lesson study projects at Samuel Whitbread Academy (SWA): promising ideas, approaches, insights that could inform your teaching practice. But how do the insights written up in this issue reach your practice and that of your colleagues? Pollen needs pollinators. Without pollinators the potential of the pollen remains locked away and fruits will stay absent. So who are the pollinators in school and where to find them.

When I talk to teachers, I notice that some of the most powerful strategies they cite for sharing their work are often informal, unstructured and unplanned. Often, there is a special person – a mentor, colleague or friend – who helps share their work. This person is convinced of the value of their ideas and enthusiastically talks to colleagues about them. They act as connectors that help teachers to spread their work and colleagues to learn about their ideas. They are the pollinators. So if you are the author of one of the studies in this issue, search for these pollinators in your school who will actively help you spread your work. This requires insight in your school’s collegial network. Do you have the know-who?

We are related in many ways with the people around us; some are colleagues, some are friends and some are both. Our personal network contains valuable resources of expertise, emotional support and enthusiasm that can support us in our daily work and life. Being aware of your own network, and even drawing it out on paper as a constellation of connections, can be illuminating. The more know-who you have, i.e. insight into your network, the better you are able to identify good ‘pollinators’. These are often the people closest to you, the ones you trust and feel comfortable with. They are the people who understand and value your work, and are engaged with it.

So read the articles with great interest. Let the ideas inspire you and inform your practice, but also consider if you can be a pollinator and spread your colleagues’ good work. Pollen needs pollinators. These articles need you.



DR. FRANK CORNELISSEN

Last year Samuel Whitbread Academy published its first - and THE first - ‘*Anthecology*’ of teacher learning and curriculum development, that sprung from their annual programme of whole school lesson studies. So it is great to see this second *Anthecology* following hard on its heels one year on. All the ideas within these pages have been carefully co-evolved by teachers working closely with each other, and their students, to develop nuggets of teaching and curriculum development that not only work - but can be taken, adapted and adopted by others. This year they have further improved their methodology with a even sharper focus on impact on student outcomes and their use of research. So read on...

PROF. PETE DUDLEY

INTRODUCTION

REFLECTIONS ON USING LESSON STUDY AT SAMUEL WHITBREAD ACADEMY

I am thrilled to be asked to write for our Anthecology this year and I am very sad that this will be the last one in which I will be directly involved, although I look forward to reading others in the future. Lesson Study has never been and never will be an add on at Samuel Whitbread Academy. It is an embedded part of our practice and it is integral to everything that we do to improve teaching.



When I first learnt about Lesson Study I saw immediately how we would benefit from such a process. Action Research had been a key part of our work for a number of years and Lesson Study was, and is, a natural extension to this. The philosophy behind Lesson Study is extremely simple; colleagues working together to improve their practice in a disciplined, enjoyable and focussed manner.

A few years ago, I can remember standing up in front of staff and describing how the Lesson Study in which I was then involved, had gone wrong. I had spent time with other staff developing what we considered to be an outstandingly brilliant writing frame. The trouble was, when we tried it in the classroom, it clearly wasn't! Rather than being downhearted, the process of Lesson Study allowed us to refine our work and to test it again using different students and a new framework. The next time we tried this in a classroom I watched another member of our triad teach a quite brilliant lesson which was the beginnings of the '*pyramid of learning*' which we developed. The final lesson of that year's cycle was led by a Newly Qualified Teacher (NQT) and I was struck how powerful it was when a senior member of staff, a middle leader and a NQT could have a well-structured discussion about teaching and learning without worrying about hierarchy.

Since the early days of Lesson Study at Samuel Whitbread Academy, I have been part of, and as importantly, learnt about many other successful projects. All of these have certain things in common:

1. They contain an element of failure which leads to better learning. Poet Samuel Beckett's maxim suits Lesson Study so well: "Ever tried. Ever failed. No matter. Try Again. Fail again. Fail better."
2. Hierarchies disappear around the discussion and planning of improvements to be made to teaching and students' learning.
3. There is a focus and a discipline to teacher's continual professional development.
4. Lesson study is centred on improving students' learning.
5. It is one of the most enjoyable experiences that I have ever had as a teacher.
6. The marketplace that follows lesson study has a tremendous buzz and ensures that everybody has a unifying finishing point.

As I leave Samuel Whitbread Academy, one of my roles next year is working across a number of Local Authorities on developing Lesson Study. I am particularly looking forward to this aspect of my work and I know that I will be developing practice which mirrors that which I have already experienced here at Samuel Whitbread Academy. I am also shamelessly stealing the marketplace idea to use and I very much hope it will have the same impact and buzz as ours does!

I look forward to hearing about lesson study in the future and its new iterations at Samuel Whitbread Academy. I know the pollination will continue and I will miss the buzz of collegiate discovery and refinement. I am sure that as you read this anthecology you will find some fascinating ideas and I hope you will take the opportunity to try new things and learn with your colleagues using the most powerful professional learning tool I have experienced.

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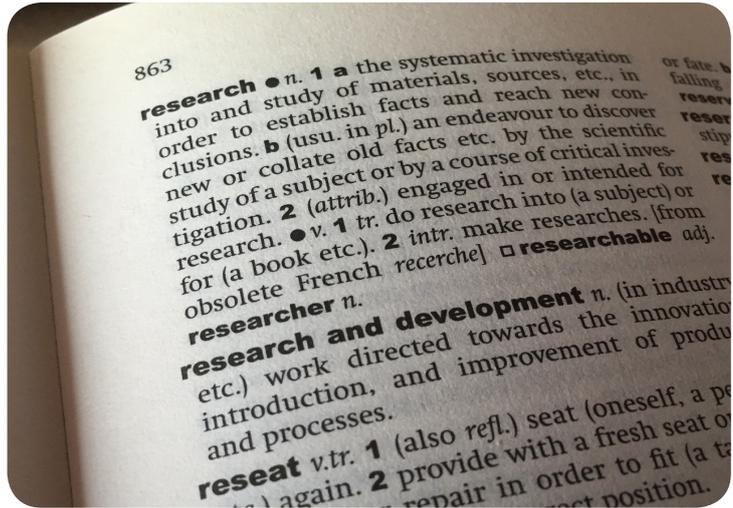
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RESEARCH

ENGAGING IN AND WITH RESEARCH: ITS PURPOSE AND VALUE

“Research is systematic, critical and self-critical enquiry which aims to contribute towards the advancement of knowledge and wisdom” (Bassey, 1999, p. 38).

According to Bassey (1999) the overall aim of research is to increase our knowledge base and be able to apply that knowledge in an effective way. This is not dissimilar to what Wilson (2013) suggests teachers do, as they “constantly reflect on classroom interactions and question why students behave and perform in a particular way” (Wilson, 2013). However, the extent to which teachers engage in systematic and self-critical introspection could be argued as a limiting factor in determining if they are really researching.



Nevertheless, it is through their reflection that a teacher builds up an understanding of successful teaching and how they learn to implement certain strategies at different times which contributes to their own knowledge base and the effective application of it. Having been viewed as a positivist application of the social sciences (Lewin, cited in Marrow, 1969), the teacher’s role as a researcher now encompasses wider epistemological approaches.

Perhaps therefore, whilst research is an activity that teacher’s intuitively engage in, they should be challenged about the procedural and evaluative aspect of their self-review and subsequent conclusions to strengthen and validate their knowledge and understanding. In order for this to happen a teacher needs to be in an environment where they have the opportunity to be methodical and critical if a transformation of practices is to take place (Kemmis, 2009). The Department Lesson Study approach at Samuel Whitbread Academy allows for these two aspects to be embraced. Firstly, the opportunity to frame a research question around a key issue and then by working collaboratively with other practitioners, adds a deductive and/or inductive approach to developing new knowledge about how our students can learn more effectively. Secondly, it gives the teacher space and time to be both self-critical and to seek the views of other professionals and students in order to evaluate the impact that their study has produced.

The systems in place to conduct well-grounded, focused and relevant Department Lesson Studies are becoming established in the Academy now and therefore we are able to focus more on the validity of the research being undertaken, engage more rigorously in the impact that the studies are having in the classroom and also on the learning and progress of students.

However, building the capacity to allow teachers to engage in research is only part of the focus and commitment within the Academy. For teachers to engage in research more effectively they need to engage with research too. BERA (2013) argue that educational research is far reaching in its scope and breadth, covering themes “from the organisation and structure of education, to those on social justice, special education needs, curriculum, assessment, innovation and the economic impacts of education” (BERA, 2013, p. 4). A teacher who is able to engage with this body of research in a critical manner will be better informed and Wilson (2013) suggests there is a threefold purpose in doing so. Firstly, to be informed about what is already known about the area of interest, secondly to deepen the understanding of interrelationships between the area of interest and other subject areas and thirdly to help provide a framework for a teacher’s

own research. The Department Lesson Study approach in the Academy actively encourages the use of research, particularly previous research undertaken in the Academy, to help frame new lines of enquiry, resolve issues that have arisen and to develop current practises to ensure outcomes for students improve.

In conclusion, there is a great deal of value in engaging in and with research to develop the teacher's knowledge base and by engaging in Department Lesson Study in the Academy the teacher has a place where their research can be more systematic and self-critical, making a more effective contribution to their understanding which will then ensure that student outcomes are improved.

DAVID HALL AND SONIA KERRIDGE

CONTEXT

Samuel Whitbread Academy is a large rural upper school (Years 9-13) of 1750 students which includes 450 in the Sixth Form and is the largest school in Central Bedfordshire Local Authority. We have come a long way in the last few years and we are now one of the highest ranked schools in the local area for results at both GCSE and post 16 levels.

We are part of the Bedfordshire Schools Trust (BEST). BEST offers exceptional all-through educational provision across Bedfordshire. Provision begins at our BEST Nurseries and culminates at the SWA Sixth Form, from where students enter either HE or employment. We aim to enable all to be the BEST they can be, have enjoyed their time in our schools and be well-prepared for life.

We have been using Lesson Study at Samuel Whitbread Academy as our primary vehicle for improving teaching and learning for the last five years and we are confident that it has significantly raised the standard of teaching in the school. This Anthecology is a collection of all of the work completed by the Lesson Study triads this year at Samuel Whitbread Academy.

ACKNOWLEDGEMENTS

We would like to thank the SUPER network and Curee for their support in helping us develop a research culture throughout the academy.

We would like to thank Prof. Pete Dudley for his continued support in our Lesson Study journey.

We would like to thank Dr. Frank Cornelissen for his support and inspiration over the last year in the further development of our Anthecology.

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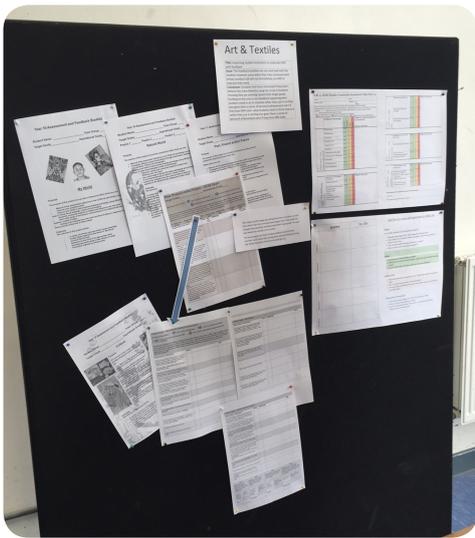
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MARKET PLACE

The Department Lesson Study (DLS) sharing event was an opportunity for triad members to present the research they had been undertaking to members of the academy. It also gave them a chance to discuss possible future lesson studies.



ACTIVITIES HALL

TS4 MATHS AUDIENCE: KS4, LA, HA, HA FOCUS: To what extent can using problem solving set cards build lower attaining students' resilience to tackling multi-step contextualised problems?	SCIENCE AUDIENCE: KS4, SEND, PP FOCUS: Can using targeted questioning improve student progress in particular with application (AO3) type questions	GEOGRAPHY AUDIENCE: KS4, LA, HA, SEND, PP FOCUS: To what extent can DLS ensure that engagement and resilience for studying Geography is fostered through independent learning?	RS & LAW AUDIENCE: Disengaged underachieving boys FOCUS: To what extent can the use of motivational activities improve the quality of writing for underachieving boys in core RS.
MATHS AUDIENCE: KS4, LA, HA, HA FOCUS: How do we ensure our students are independent in and willing to take risks?	MUSIC AUDIENCE: KS4, HA FOCUS: To what extent can the modelling of good and the attainment of 5+ students to ensure the 'gain and ork' overall?		
ART AUDIENCE: KS3, LA, HA, HA, SEND, PP FOCUS: To what extent can the engagement and progress of students be improved by more effective (RI) through feedback booklet.	GEOGRAPHY AUDIENCE: KS4 FOCUS: To what extent can it homework on able students who are at risk of underperforming to make good progress?	SOCIOLOGY AUDIENCE: Disengaged/low PA students FOCUS: To what extent can positive teacher behaviours improve the mindset and engagement of ABCPA students.	ENGLISH AUDIENCE: KS4, KS5 FOCUS: What effect does our focus on students' mental health and character development have on improving teaching and learning?
MATHS AUDIENCE: KS3, LA, EB, JBC, LA, HA, PP FOCUS: To what extent can using pre-set exam questions and follow up testing improve the use of students' timetable 'study time'?	ENGLISH AUDIENCE: KS4, KS5 FOCUS: To what extent can differentiated lessons of pupils of all abilities?	SCIENCE AUDIENCE: KS4, LA, HA, HA, SEND, PP, KS5 FOCUS: To what extent can differentiated lessons of pupils of all abilities?	BUSINESS AUDIENCE: KS4, KS5, LA, HA, HA, SEND, PP FOCUS: To what extent can the differentiation of support improve the performance of KS4 and dependents.
TS1 MATHS AUDIENCE: KS4, KS5 FOCUS: To what extent can using pre-set exam questions and follow up testing improve the use of students' timetable 'study time'?		PE AUDIENCE: KS4, PP FOCUS: To what extent does pastoral interventions improve pupils understanding of theory topics?	ENGLISH AUDIENCE: KS4, LA, SEND, PP FOCUS: To what extent can formative structures enable students to track their progress?
		TS5 ENGLISH AUDIENCE: KS4, LA, SEND, PP FOCUS: To what extent can formative structures enable students to track their progress?	

TSS CONTINUED ON THE NEXT PAGE...



“ It gave me an opportunity to discuss with a wide range of professionals how I can develop ‘problem solving’ pedagogy. ”

CHRISTINE WALL

“I thought it was excellent, I found the professional dialogue to be of a very high quality and I picked up a number of great tips to improve my practice.”

THOMAS ROWELL



THEATRE

TS6 HISTORY AUDIENCE: KS4, KS5 FOCUS: What impact does the level of specificity of a first hit have on improving student progress?	MATHS AUDIENCE: KS4 boys who had achieved 4b/c at KS2 FOCUS: To what extent can STAR marking engage year 10 KS2 4b/c boys in completing high quality homework?	DT&E AUDIENCE: Year 11 FOCUS: To what extent can a targeted, structured intervention policy focused on exam practice, improve LCP including PP students, who have a level 4 indicator at KS2?	SCIENCE AUDIENCE: KS4, HA FOCUS: To what extent can using metacognition allow higher ability students to plan successful revision activities for GCSE science?	ENGLISH AUDIENCE: KS4 FOCUS: Feedback for exam techniques and using DIRT to improve exam responses. FOCUS: To what extent can the development of independent thinking skills contribute to improved performance?	MFL AUDIENCE: Year 11 FOCUS: To what extent can the development of independent thinking skills contribute to improved performance?	PSYCHOLOGY AUDIENCE: KS4 FOCUS: To what extent can improving the level of detail in extended exam questions improve the number of marks achieved in the next GCSE exam?	H&SC AUDIENCE: KS4, KS5, performing girls FOCUS: To what extent can effective use of formal assessment improve progress rates amongst KS4 girls performing girls?	SCIENCE AUDIENCE: KS4, HA, SEND FOCUS: Does the consistent use of a schedule and log seem to improve the quality of longer written answers about data handling?	SCIENCE AUDIENCE: KS4, HA FOCUS: To what extent can using mbo on gibbon allow higher ability students to plan successful lesson activities for GCSE science?	DRAMA AUDIENCE: KS4, HA FOCUS: To what extent can Elished GCSE English 2 work on the overall attainment of Drama grade over an order to gain 3 levels of progress?	FILM AUDIENCE: KS4, PP FOCUS: To what extent can using www.ks4m.com feedback on all lower teachers to record and deliver effective verbal feedback to students make progress?
TS5 COMPUTER SCIENCE AUDIENCE: KS4, KS5, HA, SEND, PP FOCUS: To what extent will the use of differentiated assessment mats and writing frames improve planning and feedback and therefore lead to more progress?	PE AUDIENCE: KS3, PE, SEND FOCUS: To what extent can differentiation within practical core games lessons focusing on aspects other than performance help improve understanding and skill level?	ENGLISH AUDIENCE: KS4, HA FOCUS: To what extent does devising questions in depth only improve retention techniques for HA students at GCSE?	SCIENCE AUDIENCE: KS4, LA, HA, HA, SEND, PP FOCUS: How well do differentiated questioning grids aid independent learning/resistant?	PE AUDIENCE: KS5, PP FOCUS: Does using Pause, Pounce and Bounce with differentiated questioning facilitate student support and progress?							



“I’ve got some great ideas to try next year working with a member of a different department.”

REBECCA NUNAN

“RAISING RESILIENCE ROCKS!”

ISSUE

Students lack confidence and motivation (mindset) to peer and self-assess their own work, both post-task completion and following teacher feedback.

CONCLUSION

The use of assessment grids in English Literature has been successful in familiarising students with the new Assessment Objectives (AO) and in what the mark scheme is looking for. The most difficult area was in ensuring students understand what the more generalised AO terms mean in practice; this area is a focus for future research.



LESSON STUDY HIGHLIGHT

Members have read previous research literature to inform planning

Set high expectations
which inspire, motivate and
challenge students

TS1

RESEARCH QUESTION:

To what extent does our focus on students' resilience have on improving teaching and learning?

FOCUS:

Boys, Girls, KS4, HA, MA, LA

ACTIONS:

Students were given assessment feedback sheets that included assessment objectives, success criteria to meet those objectives and improvement targets to help them. The students were then given specific action sheets.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

The assessment feedback sheets allowed the students to understand the intricacies of the AOs, zoom in on specific areas of weakness and improve written extended answers.

IMPACT ON PEDAGOGY

The use of the AOs to inform and improve success criteria, breaking down the AOs and putting them into student parlance are also important.

EMBEDDING IN DEPARTMENT

Prior to the Scheme of Learning (SoL) lessons, the AO criteria sheets were given to the students to foster familiarity. Thereafter, the use of self-assessment sheets are now embedded into SoLs.

FURTHER RESEARCH:

How can we adapt the feedback sheets to cover English Language AOs and success criteria?

How do references to AOs in subsequent lessons affect learning?

How confident are students at understanding, meeting and applying AOs to texts and their own work?

If teachers were to follow this approach, what changes would they have to make?

In what ways can the feedback sheets be differentiated to personalise learning?

RESEARCH:

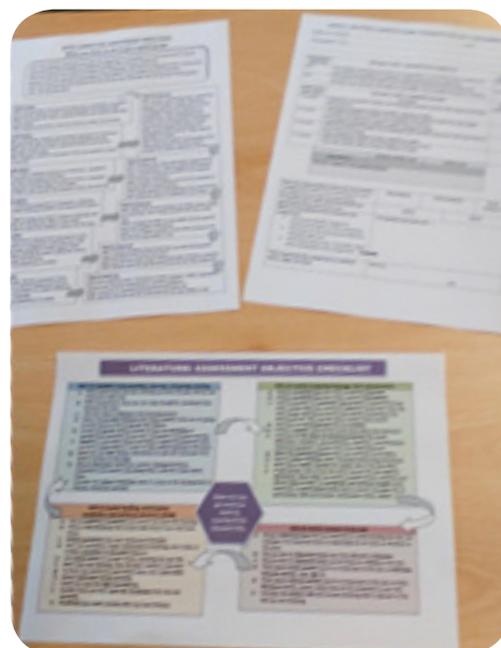
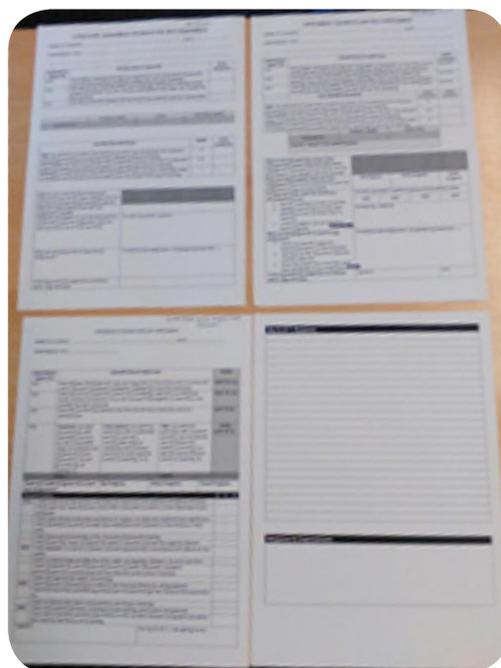
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MEMBERS:

Lorraine Croft, Paul Constant and Erika Harvey (ENGLISH)



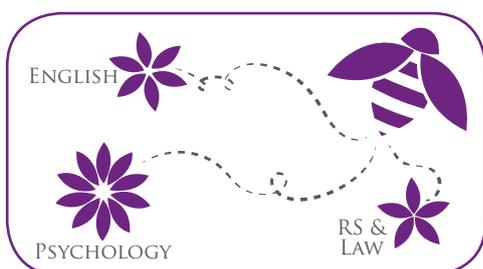
“WHAT CAN I DO TO MAKE MY STUDENTS BELIEVE THAT THEY CAN DO IT?”

ISSUE

A mid-attaining (MA) GCSE group have been disengaged since commencing the course: While meeting homework deadlines have been inconsistent and comments like ‘I don’t get it?’ and ‘what does that mean?’ are regular mantras; we believed mindset and attitude to learning to be crucial to their disengagement.

CONCLUSION

Positive teacher behaviours impact on the mindset of students. By acknowledging effort and hard work through postcards home, praise and high teacher expectations, students’ mindset can change and they can slowly believe in themselves.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on student progress

Set high expectations which inspire, motivate and challenge students

TS1

RESEARCH QUESTION:

To what extent can positive teacher behaviours improve the mindset and engagement of MA students?

FOCUS:

Boys, Girls, KS4, MA

ACTIONS:

Using insight from Dweck's theory (1999) of motivation we began the lesson asking the students what types of learners they believed themselves to be (see image). All but one (26 out of the 27) saw themselves as having a fixed mindset; we knew, at this moment, we had identified the right group and the right focus. The lesson proceeded with agreed teacher behaviours including: positive verbal and vocal intonations, body language, praise and high expectations. This though was only the start. Subsequent lessons and homework activities were rewarded with postcards.

Starter	Fixed Mindset	Growth Mindset
Who are you?	Intelligence is static.	Intelligence can be developed.
Leads to a desire to <i>look smart</i> and therefore a tendency to	Leads to a desire to <i>learn</i> and therefore a tendency to	
Read the two columns – tell your partner whether you have a 'fixed' or 'growth' mindset.	<ul style="list-style-type: none">• avoid challenges• give up easily due to obstacles• see effort as fruitless• ignore useful feedback• be threatened by others' success	<ul style="list-style-type: none">• embrace challenges• persist despite obstacles• see effort as path to mastery• learn from criticism• be inspired by others' success

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

It is difficult to measure any improvement in student progress based on the isolated variable of positive teacher behaviours. However, on reflecting upon the data, predict 4 showed we had 13 converter students (D+ and B+ respectively). Of these students 3 tipped into the C/A category by predict 6. Of the remaining 10 students all but 2 remained on that grade.

IMPACT ON PEDAGOGY

- Rigorous use of the praise system at SWA e.g. praise points, postcards home, recommendation of students to Head of Department (HoD) who can then share with Senior Leadership Team (SLT) during their line-management meetings to gain Principal praise.
- Modelling the use of positive language in the classroom e.g. from clarifying understanding to reprimanding and reminding students of expected behaviour in the classroom.
- Positive body language – the 3 Vs of communication: Visual, Verbal and Vocal. If all 3 are not in line, first and foremost the audience will take note of the visual. So if as teachers, our body language is negative or doesn't match what we are saying, students will remember what they see! Amy Cuddy (2015) social psychologist, researched the impact of the mind affecting our bodies and body language affecting others' judgements of us.
- High expectations – standing at the classroom door and welcoming the students into the room, smiling, chatting, being aware of body language at the outset (Cuddy, 2015) – this sets a positive classroom climate and the expectations for the rest of the lesson.

STUDENT FEEDBACK
I just wanted to say thank you for the postcard you sent home!! :) I promise to keep working hard, I won't let neither you nor Mr Johnson down this year as I know that I no doubt did last year and I don't fancy failing them (my GCSEs) to be honest with you so I'm going to try my hardest to keep my head down, ignore what people say to try and get me angry, stay in the lessons, get the work done and get that C that I want!

FURTHER RESEARCH:

Reading into what makes truly independent learners and building this into positive student behaviours.

RESEARCH:

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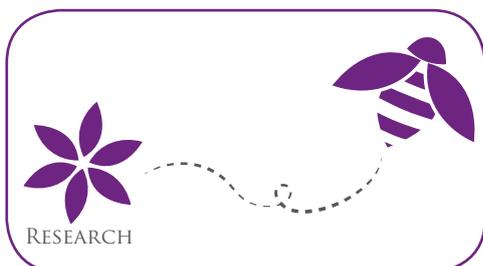
“FLIP-IT HOMEWORK”

ISSUE

Students have not been seeing the value of homework and consequently not completing it and not progressing.

CONCLUSION

Flip-It homeworks have their place and are highly beneficial for some parts of the SoL. We feel they are best used as exam and assessment preparation (eg. revision) and research for group tasks to feedback. It enables students to get content prepared to then spend time in lessons applying it.



LESSON STUDY HIGHLIGHT

Members have read previous research literature to inform planning

Set high expectations
which inspire, motivate and
challenge students

TS1

RESEARCH QUESTION:

To what extent can Flip-It homework enable students who are at risk of underperforming to make good progress?

FOCUS:

Boys, Girls, KS4, HA, MA, LA

ACTIONS:

Flip-It learning is getting the students to prepare in advance of the lesson, so they come armed with knowledge and can then apply it in the lesson. Teachers set a number of Flip-It homeworks to give students tasks to do before a lesson so that they had them ready at the start. Made sure there was additional work for those who didn't do it.

Year 11 Geography Mock Revision Tick List	
Name:	Geog Teacher:
Water on the Land	
Learning Outcome	Revision Notes Done?
Hydrological Cycle	
The Drainage Basin System	
River Processes – Erosion, Transportation, Deposition	
Long Profile and Cross Sections of Rivers	
Upland River Features – V-Shaped Valleys, Waterfalls	
Middle Course River Features – Meanders, Ox-Bow lakes	
Lower Course River Features – Deltas and floodplains	
Hydrographs	
Causes of Flooding	
Case Study: Boscastle Flooding	
Flood Control Methods	
Case Study: Bangladesh Flooding	
River Engineering	
Water Support	
Kielder Reservoir	
Changing Urban Environments:	
What is Urbanisation? Where are cities growing the fastest? Why are they growing?	
What functions and land uses are found in urban areas? How have cities grown?	
Landuse Models (Burgess and Hoyt)	
Urban Redevelopment? Brownfield v greenfield	
Urban Problems: CBD, Traffic, Housing, Ethnic Segregation.	
What has been done to address this issue? BIRMINGHAM	
How have governments attempted to improve the image of the CBD? LONDON DOCKLANDS	
Why are LEDC cities growing rapidly? What issues does this raise?	
What are shanty towns like?	
What problems are faced by people in shanty towns? RIO DE JANEIRO	
How have people and governments attempted to address the issues of shanty towns? RIO DE JANEIRO	
What other issues are caused by rapid urbanisation? Water and Air Pollution and Waste Disposal	
In what ways can cities be made more sustainable? BEDZED	

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students improved their hand in rate for homework over time and were able to do much better in assessments.

EMBEDDING IN DEPARTMENT

This has been embedded into the new GCSE Geography course, especially in the Global Hazards unit.

FURTHER RESEARCH:

Need to try it out on other types of homework as well.

RESEARCH:

@TeacherToolkit

MEMBERS:

Lisa Coulson, Thomas Rowell and Andy Chalkley (GEOGRAPHY)

“IMPROVING STUDENT MOTIVATION TO UNDERTAKE MRI WITH FEEDBACK”

ISSUE

The feedback booklets we currently use work well with the students, however, when some students have produced work below standard they will not immediately use ‘My Response Is’ (MRI) to improve their work.

CONCLUSION

We used the ‘arrow in brackets’ to show the students that they are working towards their target grade. Students feel more motivated if they don’t believe they have failed. Building on this one to one feedback, explaining what students need to do to improve, rather than just in writing also gives them a sense of personal achievement even if they have MRI tasks.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on pedagogy

Set high expectations
which inspire, motivate and
challenge students

TS1

RESEARCH QUESTION:

To what extent can the engagement and progress of students be improved by more effective MRI through feedback booklets?

FOCUS:

Boys, Girls, KS4, HA, MA, LA, SEND, PP

ACTIONS:

We developed a feedback booklet for KS4 and, although the students responded well to this, we found some of them did not respond to feedback. We tried different ways in motivating students to respond through the feedback as MRI. We all tried different approaches with our groups in giving the feedback in the booklets.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

There was an improvement in students' response to MRI, and students seem more motivated to improve their work. They also look forward to receiving their feedback.

IMPACT ON PEDAGOGY

We adapted the arrows in our feedback to avoid using the down arrow as students did not respond positively when given this "you are below target" and changed this to an arrow going across in brackets, to mean "you are not quite there at the moment but if you respond to your feedback you will working toward your target grade". This made a difference to the motivation of most students. We then built on this by having tutorials with the students and giving the feedback to them one-to-one and explaining what they needed to do. The students then agreed when they would do the improvements and wrote their own completion date. Most said they preferred this method. This also helped with homework as students knew they would be spoken to in the tutorial rather than just handing their work in.

EMBEDDING IN DEPARTMENT

This has made a difference to how we present our feedback, being careful on our phraseology, so we tell students what they need to do to improve.

FURTHER RESEARCH:

Further research into how to motivate LA boys who are particularly poor with MRI and homework tasks.

RESEARCH:

DWECK, C. S. (2006), Mindset: The new psychology of success. New York: Random House.

DWECK, C. S. (2012), Mindset: How You Can Fulfill Your Potential. Constable & Robinson Limited.

MEMBERS:

Cheryl Burgoyne, Jane Redcliffe, Jane Upstone and Anna Williamson (ART AND TEXTILES)

S.W.A. GCSE Textiles Coursework Assessment Guide sheet AQA					
Name:		Date:			
Target Grade:		Predict: Autumn: Spring:			
This is a self/peer-review Checklist for your work to meet each objective before handing in. You need content for each piece of assessment objective – otherwise there can be no mark allocated (AQA guidelines). Aim for Completed (green) to maintain smooth progress. Seek feedback to improve grade estimate. Partly has to be discussed and improved upon. Missing is high priority to remedy before moving onto next Criterion.					
Work is above target grade Work is working toward target Working toward only if you complete feedback					
Evidence of Learning	Due Date	Completed	Partly	Missing	Actions to be completed, planning for and accounted for
	What do I need to do?				
AO1.1 & AO2 Assessment Criteria 1: 8 marks Investigating the design opportunity	Task Analysis	12/06			
	Research aims	12/06			
	Gantt Chart	12/06			
	Extend the brief	10/06			
	Designer Review	27/05			
	Mood board	27/05			
	Client target market profile	4/06			
	Existing products and analysis	4/06			
	Disassembly	11/06			
	Research conclusion	11/06			
	Design Specification	11/06			

Evidence of Learning	Due Date	Completed	Partly	Missing	Actions to be completed, planning for and accounted for
	What do I need to do?				
AO1.1 & AO2 Assessment Criteria 2: 32 marks Development of design proposals (including Writing and Evaluation)	Initial Ideas and evaluation	12/06			
	Revise Brief	12/06			
	Colour developments	12/06			
	Development planning and Sampling pages	12/06			
	Pattern Choice				
	Fabric Techniques				
	Fabric Enhancement				
Final Design					

Self-Review steps and questions to reflect on

Content

Is your folder consistent in its presentation throughout?

- The same themed pages used – motif, design, font, font size/colour
- Your content shows consistent interest throughout – about the same depth of answer for each stage
- Are you being mindful of marks per Criterion vs. content?
- Have you used technical language throughout?

Process

- Is your process evident through your folder?
- If you gave it to someone to read through, would it make sense? Would it flow like a story?
- Do you work through each stage steadily with every part addressed?

Quality overall

- Does your work reflect the quality you want to show? How should you maintain that?
- Have you done the extra effort to keep that quality?
- Are you aiming to produce the best quality end-product that you can? How can you address this?

Written quality/Communication

- Your written content reflects your ability and subject knowledge
- Full answers and sound subject knowledge
- You are writing structured and clear content – proof-read and edit before committing to presentation pages

“IMPROVING THE WAY YEAR 13 STUDENTS USE STUDY TIME TO PROGRESS”

ISSUE

There was doubt as to whether the timetabled study time would be used effectively by students or simply seen as a bonus free period.

CONCLUSION

After the first test the students' success was variable as many admitted to not making the best use of their timetabled study time when completing the anonymous questionnaire. But in subsequent tests the time was better used and the results improved. Further questionnaires supported this evidence.

LESSON STUDY HIGHLIGHT

Feedback from students about the study has been gathered and used in the review

Set high expectations
which inspire, motivate and
challenge students

TS1

RESEARCH QUESTION:

To what extent can using pre-set exam questions and follow up testing improve the use of student timetabled study time?

FOCUS:

Boys, Girls, KS5, HA

ACTIONS:

A belief that without structure the Year 13 students would not make full and effective use of their timetabled study periods, led us to set questions based on work covered at the end of Year 12. They would then revise these and complete a selection that would be set as a test in a later lesson. Before getting their test results back students were asked to complete a questionnaire, anonymously, about how they had revised during their timetabled study periods and how they felt they had done in the test. They then received their test back and completed a final section on the questionnaire. From the first set of questions results were varied but on further revisions and tests the results were improved as were the students' perceptions on how well they had used their study time.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Test results improved with each cycle despite the topics moving up in difficulty and students made more use of their timetabled study

IMPACT ON PEDAGOGY

The activity helped the teacher think more carefully about the work that could be given for study time and how to use the time productively.

EMBEDDING IN DEPARTMENT

All Year 13 teachers were involved and will share their findings with the colleagues that will follow on into Year 13 next year.

FURTHER RESEARCH:

Looking at other uses for the time other than revising topics already covered needs to be looked into.

MEMBERS:

Lyn Minker, Karim Kurji and Peter Fernandes
(MATHEMATICS)

Independent Learning Survey	
To be completed, honestly, before receiving your test results.	
Q1)	How much of your 3 hours timetabled preparation time did you use for the Chapter 1 test ? <input type="text"/>
Q2)	How did you prepare for the test ? <input type="text"/> <input type="text"/> <input type="text"/>
Q3)	Gender Male <input type="text"/> Female <input type="text"/>
Q4)	How will you change how you use your preparation time, if at all, for the next test? <input type="text"/> <input type="text"/> <input type="text"/>
Q5)	What do you think you will have scored out of 10 ? <input type="text"/>
You will now receive your test back. Please do not change any of your previous answers	
Q6)	What did you actually score out of 10? <input type="text"/>
Q7)	Now you know your score please add any additional comments below or any changes to what you've already written. Where you pleased, disappointed.....? <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

“TEACHERS’ LANGUAGE AND THE IMPACT ON LEARNERS IN THE MATHS CLASSROOM.”

ISSUE

Low attaining students lack confidence and motivation in their mathematical ability which impacts on their progress.

CONCLUSION

Through discussions with students it was evident that they believe they cannot and never will be able to do maths. Through the use of positive language and praise we empowered the students to have more self-belief. With most low attaining students this requires further research and a deeper understanding of individual historical mathematical influences.



LESSON STUDY HIGHLIGHT

Feedback from students about the lesson has been gathered and used in the review

RESEARCH QUESTION:

To what extent can the use of positive language build student confidence in their perceived ability at maths?

FOCUS:

Boys, Girls, KS4, LA

ACTIONS:

We observed a teacher with a class of low attaining maths students. In previous meetings we had agreed that we would concentrate on the positive language used in the lesson.

After the observation we interviewed some students from the lesson asking prepared questions focusing on their perception of their ability and confidence. We also asked questions around their views on the usefulness and practicality of maths in every day life.

The findings from the observation were fed back to the teacher, who although was already proactive in using positive language, further adapted his practice to incorporate more motivational techniques. After a second observation we interviewed the same students again.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

After the second observation, it was evident that there was not a lot of change in the students attitude or professed mathematical understanding. The techniques that were adopted to influence perceived ability required a longer period of time to change their engrained self confidence in the subject matter to have a noticeable impact. We felt this self-belief was so ingrained that intervention and standardised practice of using these motivational techniques should be adopted much earlier in the student's life.

IMPACT ON PEDAGOGY

It made all teachers involved in the study reflect and be more conscious of the language they used and the approach they took to feedback to students verbally.

EMBEDDING IN DEPARTMENT

We will lead a discussion in a department meeting on suggested best practise.

FURTHER RESEARCH:

Any research undertaken needs to be taken over a longer period of time in order to see if it has a lasting impact on students.

RESEARCH:

ADAMS, V. (2008), Building Confidence in Low Achievers through Building Mathematics Vocabulary. Lincoln. NE.

CIOE, M., KING, S., OSTIEN, D., PANSA, N. & STAPLES, M. (2015), Moving Students to "the Why?". Mathematics Teaching in the Middle School, 20(8), 484-491.

KOOKEN, J., WELSH, M. E., MCCOACH, D. B., JOHNSTON-WILDER, S. & LEE, C. (2015), Development and Validation of the Mathematical Resilience Scale. Measurement and Evaluation in Counseling and Development.

MEMBERS:

Justin Togher, Tim Bartlett and Tony Edwards (MATHEMATICS)

Interview Questions: 1 is disagree 10 is agree

• Knowing Maths contributes greatly to achieve my goals
1 2 3 4 5 6 7 8 9 10

Comments: _____

• Maths develops good thinking skills that are necessary to succeed in my career
1 2 3 4 5 6 7 8 9 10

Comments: _____

• Everyone makes mistakes at times when doing maths
1 2 3 4 5 6 7 8 9 10

Comments: _____

• Struggle is a normal part when working doing maths.
1 2 3 4 5 6 7 8 9 10

Comments: _____

• Everyone can get better at maths if they try
1 2 3 4 5 6 7 8 9 10

Comments: _____

• I believe a person's maths ability is determined at birth
1 2 3 4 5 6 7 8 9 10

Comments: _____

• I sometimes get discouraged by difficulties in mathematics but bounce back
1 2 3 4 5 6 7 8 9 10

Comments: _____

• When I experience a setback in something related to maths, I seek encouragement from others.
1 2 3 4 5 6 7 8 9 10

Comments: _____

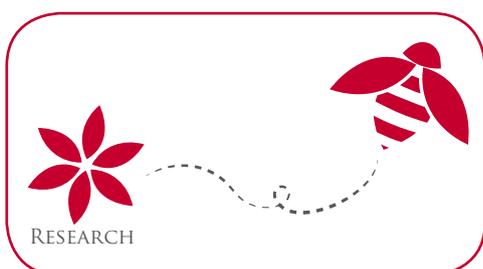
TARGETING STUDENTS ON AO3 QUESTIONS.

ISSUE

We need a quick and easy method to check student understanding and progress during the course of a lesson, in particular the analysis and synthesis type question (AO3).
i.e. What happens if?

CONCLUSION

As a means of testing particular students' application skills during lesson time it had merit. We found it to be good as a means to draw together a range of topics into application questions and to think about the questions needed to test application. But the time it takes means that not all the students that you want to challenge can be challenged. Overall we felt that the level of planning did not replace having a good question bank and knowing your students level of attainment.



LESSON STUDY HIGHLIGHT

Case students have been identified and their responses to the planned activities are anticipated and observed

RESEARCH QUESTION:

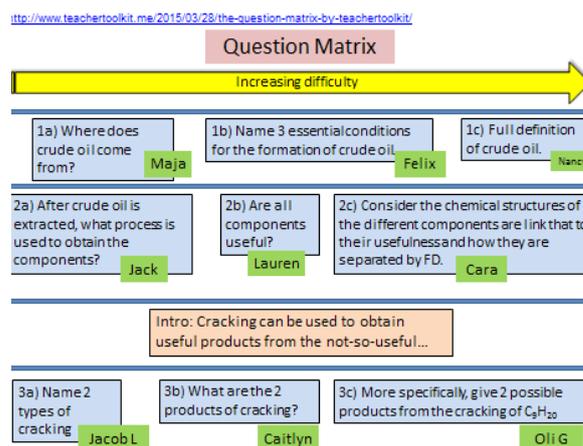
To what extent can targeted questioning improve student progress; in particular with analysis and synthesis type questions (AO3)?

FOCUS:

Boys, Girls, KS4, HA, MA, LA, SEND, PP

ACTIONS:

For a particular topic the triad members sat down and created a set of AO3 questions to test students' application of the subject. We then graded the questions into three levels. Typically a main point (this was not always AO3, but allowed other students to be included in the questions), and supplementary questions to support or extend the main point. Each member of the triad would divide their class into three bands to match the level of the questioning, based on previous data. Before the lesson the questions would be allocated to the particular students you wanted to test based on the above. Care was taken to include SEND and PP students. The questions were then asked at appropriate points in the lesson. We got into the habit of quickly recording the level of response from the student.



FINDINGS, IMPACT & EMBEDDING:

IMPACT OF STUDENT PROGRESS

Having a graded set of AO3 questions is a useful tool to quickly test understanding, but targeting the questions is unnecessary if you know your class. There appears to be no bonus for the time spent.

IMPACT ON PEDAGOGY

Sitting down with other specialist members of staff to develop question banks, stretching and challenging the higher thinking skills of the students was a good use of time. However, the process went on too long and did not include enough students. The planning of the targeted students was wasted as many were absent that day, and the teacher had to use his knowledge of the class to quickly reallocate the questions.

EMBEDDING IN DEPARTMENT

These questions could easily be inserted into the SoL. Concerns were raised as, the question bank, on occasions, did not differentiate well into all classes. Staff had to constantly modify these to fit.

FURTHER RESEARCH:

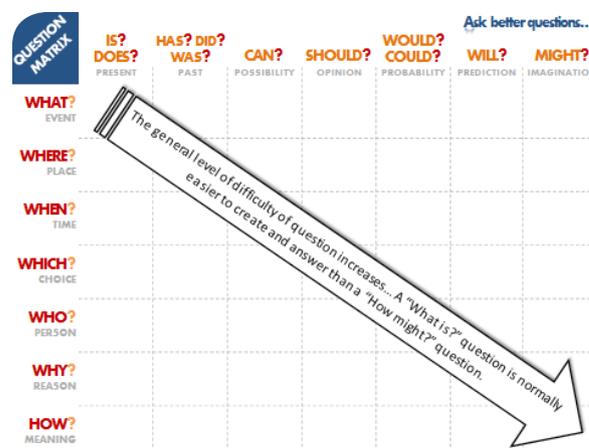
The triad members felt that using this method does not improve student outcomes more than knowing your subject, your students and differentiating accordingly. However, developing a set of good assessment questions collaboratively was time well spent.

RESEARCH:

WIEDERHOLD, C. (1995), Cooperative Learning and Critical Thinking: The Question Matrix, San Juan Capistrano, Calif. 56mps2011.wikispaces.com/file/view/Question+matrix.pdf
www.teachertoolkit.me/2015/03/28/the-question-matrix-by-teachertoolkit/

MEMBERS:

Dan Hardy, Clare Maxfield and Bill Lucas (SCIENCE)



“ENGAGEMENT FOSTERED THROUGH INDEPENDENT LEARNING”

ISSUE

How can we encourage our students to be more proactive in making progress away from the classroom?

CONCLUSION

Students gave clear feedback that they are more likely to complete the homework task if they know they will need to use it in the next lesson. The students were able to engage in their spiral of learning because the pedagogy was contextualised.



LESSON STUDY HIGHLIGHT

Feedback from students about the lesson has been gathered and used in the review

RESEARCH QUESTION:

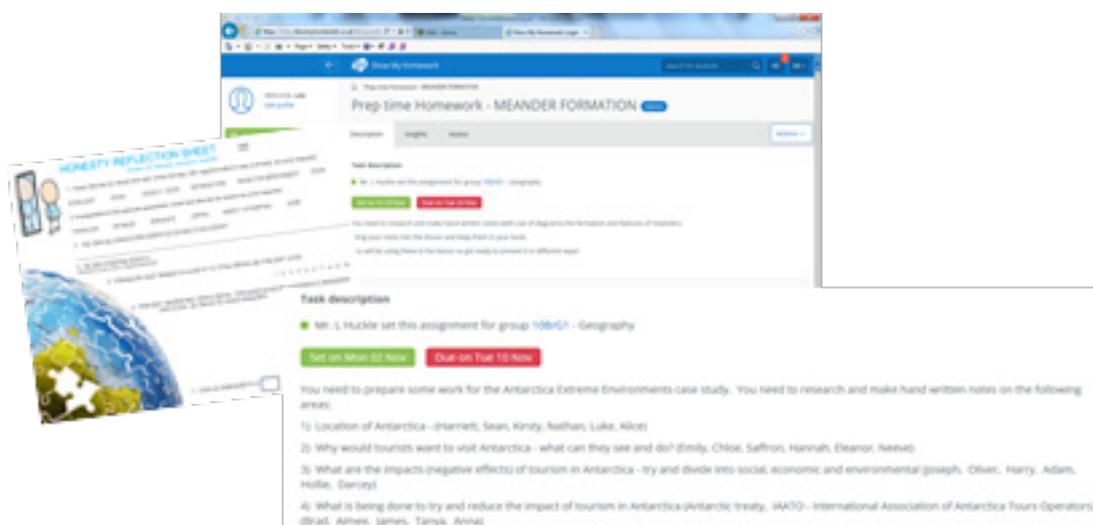
To what extent can the independent learning foster engagement and resilience for studying Geography?

FOCUS:

Boys, Girls, KS4, MA, SEND, PP

ACTIONS:

The central idea was to look at using homework as a tool to prepare for their next piece of learning. Problems had been identified that learning was seen as too compartmentalised and not as part of a whole. Various topics were used to put this in place such as Antarctica, meanders & the River Tees, through which the purpose was made that the research prior to the lesson had a big impact on the outcome of their progression in the lesson. This leads to greater continuity and embedded knowledge to allow progression and building of learning.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students made the link to the purpose of preparing & learning prior to the lesson to engage in their work. Student feedback, when asked by the observers, found that this approach to homework was enjoyed and it didn't feel pointless as it sometimes can.

IMPACT ON PEDAGOGY

Teachers appreciate the need to engage students with the type of homework set, through making it clear how it will help them.

EMBEDDING IN DEPARTMENT

Opportunities, particularly within the area of developing case studies, have been identified and will be put into the new 9-1 course planning.

FURTHER RESEARCH:

There is an issue still about how to deal with students that do not properly prepare. The work led to gauging feedback from students on their honest approach to work beyond the classroom to try to understand and help them further

RESEARCH:

HAIGH, J., ADAMS, E. & DOWNES, J. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 41-42.

MEMBERS:

Lee Huckle, Patrick Smethurst and Neil Sahai (GEOGRAPHY)

BREAKING BAD (HABITS)

ISSUE

We decided to undertake this lesson study because we wanted to motivate boys who are not particularly adept at writing.

CONCLUSION

Breaking the lesson into short, motivational tasks meant that the students remained focussed. Making sure the students had a bank of opinions and facts that they had built up from varied activities meant that when it came to doing the written task they didn't feel overwhelmed, as they could gather the strands of the lesson together to tackle the written question.



LESSON STUDY HIGHLIGHT

Members have read previous research literature to inform planning

RESEARCH QUESTION:

To what extent can the use of motivational activities improve the quality of writing for underachieving boys in core Religious Studies (RS)?

FOCUS:

Boys, KS4, HA, MA, LA

ACTIONS:

In order to hook the students in straightaway, we held a true/false quiz about feminism. We then played a pelmanism memory game using the key words. This was then followed up with a powerful clip of a woman talking about her experiences of sexism. As it was quite shocking, it provoked a class discussion and the students recorded what had shocked them the most and why. Rather than handing the group a dry list of statistics about the inequalities women face, we did a multiple choice quiz so they could guess the facts which, again, they found enjoyable. They then ranked the facts in order of importance. The students were then given a mind map to fill in about how childcare impacts on women's careers. Finally, with all these facts and opinions already gathered students were asked to answer the question, 'Women are equal to men now.' Do you agree or disagree?

FINDINGS, IMPACT & EMBEDDING:

Our two case students of concern produced written work which was much better in quality than previous pieces. The variety of activities had kept them focussed and motivated enabling them to use their bank of opinions to improve the quality of their written work.

IMPACT ON STUDENT PROGRESS

We have to ensure that students have enough opportunities to develop and express their opinions before writing.

IMPACT ON PEDAGOGY

Teachers can ensure that the students have an opportunity to gather facts in interesting ways, by using thought provoking and controversial material.

EMBEDDING IN DEPARTMENT

These principles are being used as we rewrite the Scheme of Learning (SoL) for core RS.

RESEARCH:

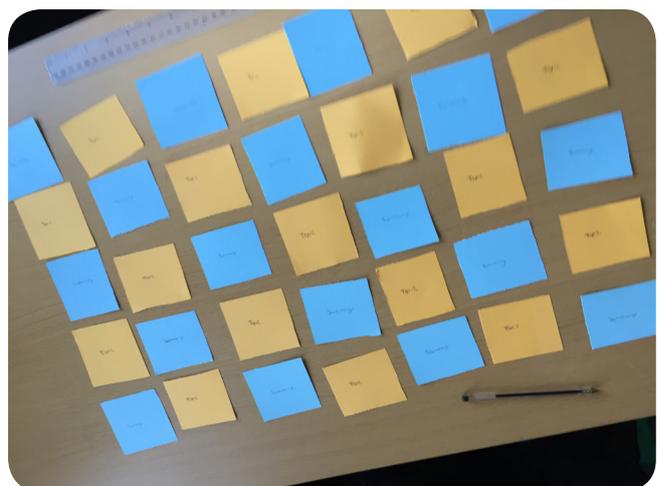
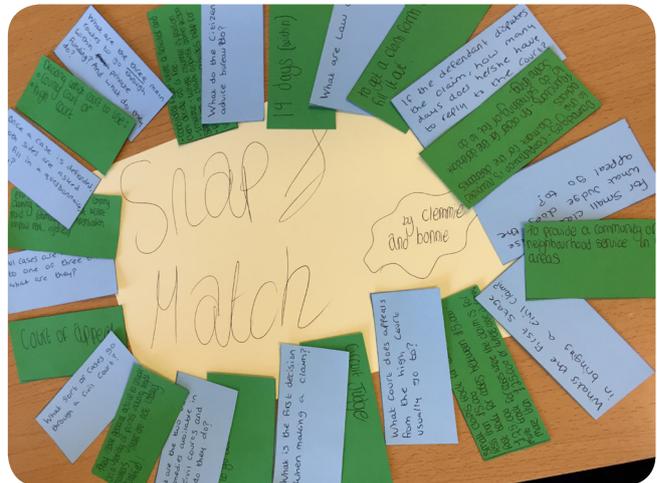
EMENY, W. (2012), 100 Things Awesome Teachers Do (1 ed.). William Emeny.

MEDWELL, J., WRAY, D., POULSON, L. & FOX, R. (1998), Effective teachers of literacy, Education-Line.

WILLIAM, D. (2011), Embedded formative assessment. Solution Tree.

MEMBERS:

Nicola Jones, Rob Taylor and Sam Tawede (RELIGIOUS STUDIES AND LAW)



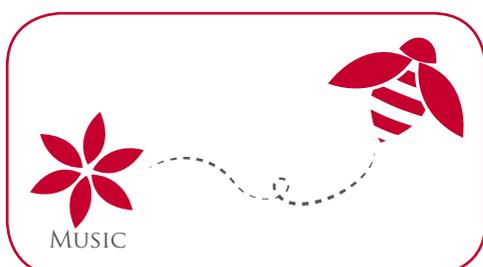
“CONTEXT IS EVERYTHING; MODELLING FOR IMPROVEMENT”

ISSUE

Our high attaining (HA) students were struggling to access the top band of marks across all areas of the mark scheme in composition.

CONCLUSION

Students suggested that this modelling intervention was helpful. Of the three case students, two of the students accessed the top band of marks after this intervention. The other student found it hard to make explicit links between examples and their own work and was therefore unsuccessful in accessing the top band of marks.



LESSON STUDY HIGHLIGHT

Case students have been identified and their responses to the planned activities are anticipated and observed

RESEARCH QUESTION:

To what extent can the A* support cards and modelling improve the attainment of HA students to ensure they gain an A or A* overall?

FOCUS:

Boys, Girls, KS4, HA

ACTIONS:

We continued to employ our A* support cards in composition lesson, but this time, based on feedback last year, we used them in conjunction with a real example. In this case, it was in the context of a whole piece, rather than demonstrating to the students the small feature out of context. The teacher worked with the case students (and other HAs) to analyse a piece of music using the A* cards and hence providing examples of how the ideas can be integrated into the composition. Students printed out their work and annotated where they could use features from the analysed work in their own controlled assessment.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Last year, we worked exclusively with our unmotivated high ability boys with some success. Students fed back that whilst, it was helpful to have the A* support cards and see the features they could employ in isolation, they suggested that it was challenging to see how this can be integrated to a final piece. Our changes allowed students to 'fill in the gaps' as to how this could look in their final piece.

Two of the students successfully observed a strategy used in the modelled example and were able to incorporate into their work. These two students moved their composition into the top band for these criteria and as a result of this we have incorporated top band final examples to analyse for the whole class into our SoL.

IMPACT ON PEDAGOGY

This has changed the way we approach composition, which often pinpoints elements of the mark scheme in isolation of the overall product. We found that it is important in the later stages of composition to look at whole examples and for students to analyse and mark others work in order to reflect on their own process.

FURTHER RESEARCH:

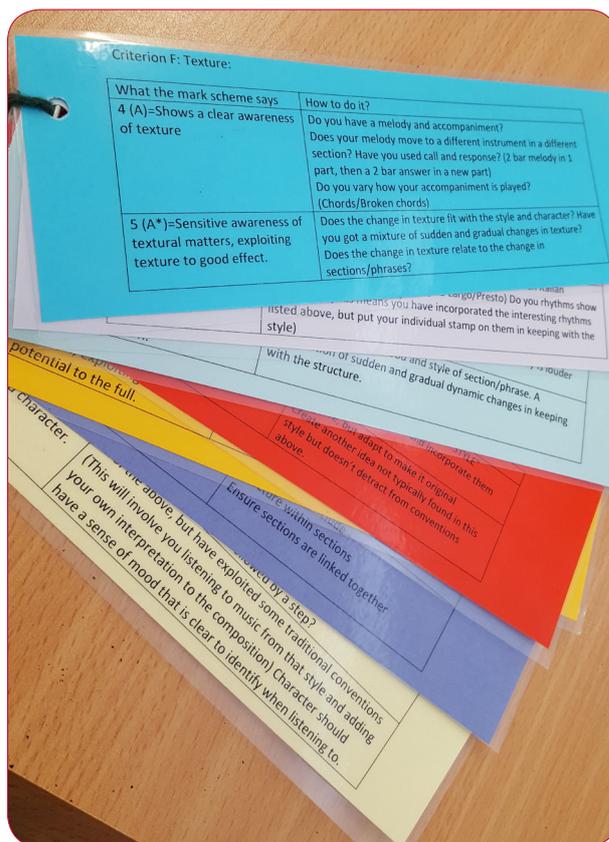
Our next steps would be embedding this approach to all compositions and providing students with many past examples to analyse themselves.

RESEARCH:

TABERT, C., MEADOWS, H. & HOOD, C. (2015), *Anthecology: Lesson Study Journal*, Halcoyn-Press, 1, 39-40.

MEMBERS:

Clare Hood and Charlotte Tabert (MUSIC)



“IMPROVING RESILIENCE IN PROBLEM SOLVING”

ISSUE

The majority of students, particularly lower attaining and SEND students, are finding the multi-stage, contextualised problem solving exam questions difficult to answer and these are becoming increasingly common in GCSE exams.

CONCLUSION

Although some students found it hard to access the questions initially, after careful questioning and prompting by the teacher they showed signs of improving their resilience and attempting further questions, even trying more difficult questions for longer before giving up. Students could see how the activity might help them be more successful in exams although they needed to do more of them over a longer period of time before any real difference might be noticed.



LESSON STUDY HIGHLIGHT

The pedagogy developed in the lesson study is being embedded in the department

RESEARCH QUESTION:

To what extent can using problem solving cards build lower attaining students' resilience to tackling multi-stage contextualised problems?

FOCUS:

Boys, Girls, KS4, LA, SEND

ACTIONS:

The issue had arisen based on evidence from poorly answered exam questions from students. Research into how to 'teach' problem solving and its associated skills led to considering paired work or group work, based on the research around cooperative learning. Benefits of cooperative learning in its various forms have been "increased knowledge or skills, increased conceptual understanding, improved attitudes or motivation, improved communication skills, and improved social skills" (Davidson & Kroll, 1991, p. 363).

Card activities were designed based on exam style questions. Students were paired up to work through the questions. Initial discussion in the lesson with students centred around asking what the topic and formulae they would need to answer the problems. During the activity the teacher asked probing questions to help develop students' resilience and confidence to keep going with questions. The activities were followed up by answering exam questions.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

It is difficult to measure any improvement in student progress based on the limited time they have spent solving problems this way. It would be necessary to try this at least six times, according to Petty (2006), before a better judgment on progress could be made. However, students reported that this activity would help them "have a better crack at the harder questions on the exam now."

IMPACT ON PEDAGOGY

The activity helped the teacher think more carefully about their questioning techniques and this produced the same effect that the teachers in the Cognitive Acceleration Mathematics Education (CAME project, 2006) had.

EMBEDDING IN DEPARTMENT

The problem solving activities are being included in the scheme of learning, to be used alongside a number of other problem solving activities being developed. All teachers in Year 10 are now using them to develop problem solving skills with their students. Students record evidence of the problem solving tasks in their exercise books. Further problem solving card activities will be created and added to the SoL.

FURTHER RESEARCH:

A competitive edge could be considered as each pair fills in their own answer grid. Lessons could be further planned by incorporating actual exam questions to increase the link between lesson activities and exams. Creating a measure to assess students' progress in both their ability and resilience when answering multi-stage, contextualised problem solving exam questions.

RESEARCH:

DAVIDSON, N. & LAMBDIN KROLL, D. (1991), An overview of research on cooperative learning related to mathematics, *Journal for Research in Mathematics Education*, 22(5), pp. 362-365.

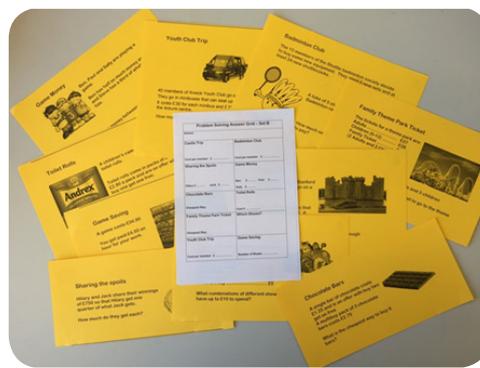
EATON, P., BELL, I. (2006), It's CAME, We saw, Did it conquer? – A review of the Cognitive Acceleration Mathematics Education Pilot Study in Northern Ireland, *International Journal of Mathematics Teaching and Learning*.

MUCKETT, A., JOHNSON, P., NYE, L. & BRIDGE, K. (2015), *Anthecology: Lesson Study Journal*, Halcoyn-Press, 1, 63-64.

PETTY, G. (2006), *Evidence-Based Teaching*, Cheltenham: Nelson Thornes.

MEMBERS:

Nick Martin, David Hall, Charles Ash and Christine Wall (MATHEMATICS)



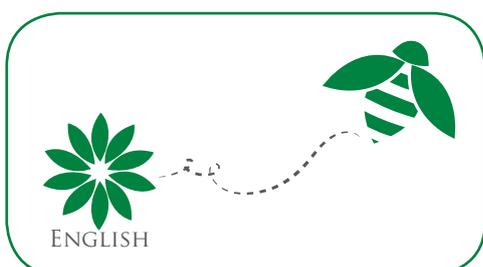
“REDUCING COGNITIVE LOAD”

ISSUE

All the teachers in this triad had low-ability, all-girl groups and experienced similar problems enabling effective revision that showed progress.

CONCLUSION

A five-point formula has worked the best as this does not overload them with too many steps they need to remember but also allows them to meet the assessment objectives of a variety of questions. A downside of this approach however, is that it limits stretch and challenge.



LESSON STUDY HIGHLIGHT

Members have read previous literature to inform planning

RESEARCH QUESTION:

To what extent can formulaic structures enable students to track their progress?

FOCUS:

Girls, KS4, LA, SEND

MAKE THE EXPECTATIONS NUMERICAL

AN INSPECTOR CALLS - EXAM ESSAY GUIDESHEET	
•	How does Priestley present the character X in the play?
•	INTRO:4 SENTENCES
1.	Use key words from the question: Priestley – presents – character X.
2.	Give your overall opinion of character X, how they've changed or what they're like.
3.	What or who does character X represent as part of wider society?
4.	How responsible is character X for the death of Eva Smith?

STRAIGHTFORWARD GOAL IS MANAGABLE

ALLOWS FOR EVALUATIVE THOUGHT

MAKE THE FEEDBACK MEASURABLE

Success Criteria	
You have described the location and given a sense of time.	
You have described the light and the colours around the setting.	
You have described the weather.	
You have described some sounds.	
You have described other senses, such as texture or smell.	
You have written at least eight sentences.	
You have used full stops and capital letters in the right places	
You have used a variety of sentence starters.	

Deliberately prescriptive and restrictive

DID IT MAKE A DIFFERENCE?

- Mocks in December and April compared.
- Pupils asked to rate confidence and preparedness before and after tasks.
- Those who used techniques did better than those who didn't.
- One class performed worse in April, compared with December results.
- Pupils felt prepared for exams

ACTIONS:

Weaker students lacked confidence in how to approach exam questions and despite scaffolded tasks, found it difficult to transfer the skills to independent work.

Previous triad work suggested that working with the group dynamic improved growth mindset.

A series of steps to success were devised which focused on the key objectives from assessment criteria.

These were taught as a series of short, timed tasks where students received instant feedback.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Most students improved by at least half a grade. All the students reported greater confidence in addressing similar tasks in readiness for their exam. 14/17 reported they felt prepared for a timed assessment after the 5-point plan had been implemented.

IMPACT ON PEDAGOGY

Simplify the stages of response to address the essence of the assessment objectives and not over-complicating the process. Realistic outcomes for the students' actual abilities.

EMBEDDING IN DEPARTMENT

The process will be embedded within the SoL so that this is taught from the outset, enabling students to gain maximum confidence in using them. This then allows for students to cement their understanding and enables the more able to develop their writing further, once they feel secure with the formulae, with assistance.

FURTHER RESEARCH:

How to develop students from a basic answer to stretch and challenge.

RESEARCH:

DAVIS, A. & MIYAKE, N. (2004), Explorations of Scaffolding in Complex Classroom Systems. Journal of Learning Sciences, 13(3), 265 – 272.

DENSCOMBE, M. (2010), The good research guide for small-scale social research projects. Maidenhead, England: McGraw-Hill/Open University Press.

MILLARD, E. (1997), Differently Literate. London: Falmer.

MORRIS, B., FOTHERGILL, S. & WILMOTT, H. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1,13-14.

MEMBERS:

Sonia Kerridge, Hannah Smith and Nicky Marvell (ENGLISH)

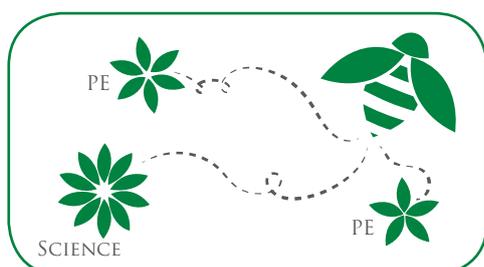
“DIFFERENTIATED QUESTIONS – AT THE SAME TIME IN THE SAME PLACE!”

ISSUE

How can we challenge different students at different levels at the same time?

CONCLUSION

The use of a differentiated question grid – with support materials – can effectively involve the full range of students in explanation / analysis and evaluation, provided they are prepared to take the initiative and get actively involved. Student engagement appears to be significantly enhanced when they have an active role to play in the development of the resource – including HOW it is used in the lesson.



LESSON STUDY HIGHLIGHT

Members have read previous literature to inform planning

RESEARCH QUESTION:

To what extent can differentiated questions stimulate and engage students of all abilities?

FOCUS:

Boys, Girls, KS4, KS5, HA, MA, SEND, PP

ACTIONS:

Using differentiated question grids, used at key points in lessons to enable Year 11 students to challenge themselves at (and around) their target grade, having a degree of choice and requiring lots of different questions or tasks and give them out to individual students.

Feedback and discussion with students supported developing not only the resource, but also the associated pedagogy over a number of lessons.

	What	How	Why
Describe	...energy changes take place when you switch on your television. Describe the useful and waste forms of energy. D	...an electric kettle that is made of metal is designed to ensure that you do not burn your hand when you pick it up after it has boiled. D	...the longer you leave an appliance switched on for the more it will cost you. (you have to use $E = p \times t$) C
Explain	...it will cost you to operate an electric fire (power rating 2.5kW) for 5 hours. 1 unit of electricity costs 20p. C	...you would decide (with evidence) between buying one of these fridges. Fridge A = 3kW power / useful 2.5kW Fridge B = 2.5kW power / useful 2 kW B	...light bulb X (power 60W with 40W light energy) costs more to run for 10 hours than light bulb Y (power 50W with 33W light energy) B
Evaluate	...factor has the most influence on improving the efficiency of a hot oil radiator. Increasing surface area by 20% increases efficiency by 15%. Increasing the matt finish by 25% increases efficiency by 19%. A	...it is more cost effective to use heater A (power 3kW and 45% efficient) than heater B (power 2kW and 60% efficient) for 3 hours. Unit cost = 25p. A	...why cleaning an old kettle (that is now not shiny) increases its efficiency (from 33% to 70%) AND its cost effectiveness. Kettle power = 3kW. Unit cost 20p. Boiling time reduced from 6min to 4 min. A

You have to do a minimum of three 'boxes'. You must complete at least one at your Target Grade! Write out the question, lay your answer out really clearly.....leave plenty of space to do your MRU!

The same format was produced for Year 12 with Bloom's derived question grid for students to follow. Their differentiated grid allowed them to develop an answer towards multiple stages, allowing them to see how marks might be broken down. Different students were also given different question grids, so that when working in pairs, they did not have the same questions

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Predicted progress indicates a real improvement from the start of Year 10 (predict 4) to now (predict 6) – where almost half the class moved from a predicted 2.5 levels of progress to 4 levels of progress. Yr 12 case students particularly needed less support than normal and were able to work their way through to the challenging questions rather than giving up. Students approach to challenges within lessons and homeworks has been more positive.

IMPACT ON PEDAGOGY

Feedback from the students themselves was instrumental in the production of 'Hint sheets' made available for reference at the front of the class at any point in the lesson to support their thinking. Over 70% of students were positive about their use of the question grids. (Around 15% of students were still frustrated at not being to find the 'answer' on the Hint Sheet.)

EMBEDDING IN DEPARTMENT

Question grids have been identified as a useful mechanism to challenge students and is a resource that will be developed in our new SoL. The differentiated questioning will be incorporated into the Year 12 and 13 SoL so that it becomes an accepted part of the way the students study.

FURTHER RESEARCH:

Developing the resource with students is an important element in their ownership of the engagement and independence with the task. This aspect will develop next year.

RESEARCH:

BLOOM, B.S. (ED.). ENGELHART, M.D., FURST, E.J., HILL, W.H., & KRATHWOHL, D.R. (1956), Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.

DANIELS, O., DAVIES, C., HENWOOD, P. & CANDLIN, R. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 25-26.

HAIGH, J., ADAMS, E. & DOWNES, J. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 41-42.

JONES, K., HARLAND, J., REID, J. & BARTLETT, R. (2009), Relationship Between Examination Questions and Bloom's Taxonomy ASEE.

WISSON, E., HART, J. & GOLDMAN, J. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 21-22.

MEMBERS:

Lorraine Murphy, Ben Lucas and Dave Goode (SCIENCE)

“INTERVENTIONS FOR C/D BORDERLINE STUDENTS”

ISSUE

Trying to get all students to understand theory topics through a practical way.

CONCLUSION

In conclusion to the practical interventions we found that the C/D students grasped this information better through practical approaches.



LESSON STUDY HIGHLIGHT

Members have read previous literature to inform planning

RESEARCH QUESTION:

To what extent do practical interventions improve students' understanding of theory topics?

FOCUS:

Boys, Girls, KS4, MA, PP

ACTIONS:

Prior to the lesson, students had a basic understanding of the impact of exercise on the body but, from examination questions, were showing a lack of detailed knowledge and understanding in their writing. To improve student understanding we employed a practical approach within this topic. Students were put into a circuit that was designed to highlight a different physiological adaptation at each station. After each station they had to complete a differentiated worksheet identifying and explaining the changes to their body. Questioning and class discussion was used to draw out more detailed knowledge of the students.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

This had an impact on student predicts, particularly C/D borderline.

IMPACT ON PEDAGOGY

This has allowed us to explore new ways of teaching topics to suit different learning needs.

EMBEDDING IN DEPARTMENT

We have now included the practical teaching of topics.

FURTHER RESEARCH:

How can we put interventions in place for the B/A borderline students.

RESEARCH:

CAINE, G. & CAINE, R. (1997), Education on the Edge of Possibility.

KOEGEL, R. L., KOEGEL, L. K. (1996), Teaching children with autism: Strategies for initiating positive interactions and improving learning opportunities. Baltimore, MD, US: Paul H Brookes Publishing.

REIS, S. & MCCOACH, D. (2000), The Underachievement of Gifted Students: What Do We Know and Where Do We Go? NAGC, 44(3), 152-170.

MEMBERS:

Jason Goldman, Emma Wisson, Nishi Saran and Helen Sears (PHYSICAL EDUCATION)

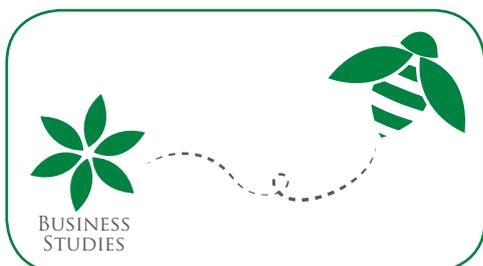
“THE IMPORTANCE OF PLANNING FOR DEVELOPING APPLICATION SKILLS”

ISSUE

Every year the Chief Examiner’s Report for the Business Studies GCSE tells us that students application of knowledge to the case study is weak.

CONCLUSION

When students step through the planning process they understand what is required and develop their own strategies for tackling the question.



LESSON STUDY HIGHLIGHT

Members have read previous literature to inform planning

RESEARCH QUESTION:

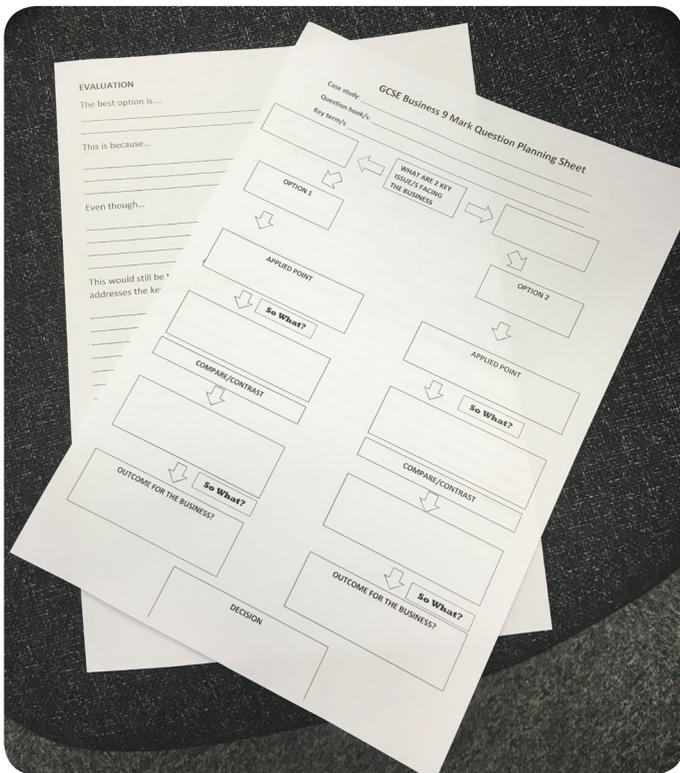
To what extent can the support, through differentiation, of our nine mark question improve the performance of MA students?

FOCUS:

Boys, Girls, KS4, KS5, MA, SEND, PP

ACTIONS:

Following the completion of the Year 11 mock exams, students planned using the developed planning sheet and rewrote an answer to a 9 mark question.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

On average students improved their marks on their rewrite by 4 marks with the students' answers fully in context. This improvement, if replicated in their business examinations, could improve student results by a full grade.

IMPACT ON PEDAGOGY

Teachers have a reusable structure to support the students' planning. This allows the teacher more time to support individuals with the planning process.

EMBEDDING IN DEPARTMENT

Added to our schemes of learning to be used following summative assessments.

FURTHER RESEARCH:

Improving students written evaluative skills.

RESEARCH:

WILLIAMS, A., JANE, V. & DENNY, C. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 17-18 .

MEMBERS:

Helen Bibby, Claire Denny, Nicole Male and Natasha Rider (BUSINESS STUDIES)

“ASSESSMENT MATS”

ISSUE

There is a need to improve extended writing in coursework and eight mark exam questions.

CONCLUSION

The mats were useful as a focus point during the lesson and were particularly effective to enable work to be produced in a correct and similar style. The mats directed student writing towards the assessment criteria and narrowed their scope of writing to produce a focussed response. They now require further development for other areas of teaching and to bring in line with the reformed GCSE coursework.



LESSON STUDY HIGHLIGHT

Department members have planned the lesson collaboratively

RESEARCH QUESTION:

To what extent will the use of differentiated assessment mats and writing frames improve planning and feedback and therefore lead to more progress?

FOCUS:

Boys, Girls, KS4, KS5, HA, MA, LA, SEND, PP

ACTIONS:

Students used their work to find an example of a specific item that required development. They then used an assessment mat, differentiated to their ability, to develop focused ideas around the example. They then improved their coursework as a result of the development work on the mat. Lastly, they peer assessed another students work who used the same level of differentiated mat.

ASSESSMENTMAT 2		NAME: _____	
Task: - Programming Techniques Pick a section of your coursework code where you have used a FOR – NEXT loop. Describe the FOR NEXT loop Explain how you have used it in your code Discuss why using it was more appropriate than other techniques (pros + cons) - What makes it efficient? What makes it robust?		← Trigger Words	Key Terms Iteration Loop Assign Repeat Count Errors
The Mark Scheme: <ul style="list-style-type: none"> - There is a description of the programming techniques used that shows a good understanding - There is a description of the choice of programming techniques used to create an efficiently coded solution - There is a description of the techniques used within the code to make the solution as robust as possible 	WHAT THIS MEANS I NEED TO DO... Success Criteria: 1. 2. 3. 4.		
Trigger Words ↑↑	My Improvement Targets:		

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

The mats directed student writing towards the assessment criteria and narrowed their scope of writing .

IMPACT ON PEDAGOGY

The mats helped the teachers direct the students’ responses to directly address the assessment criteria.

EMBEDDING IN DEPARTMENT

This will be embedded into the SoL to help identify key points to address coursework requirements and 8 mark questions.

FURTHER RESEARCH:

Further work is required to assist with producing better evidence of feedback on coursework. A method needs to be developed to enable MRI to be recorded.

RESEARCH:

STARKEY, L., KIRKMAN, B., CLARK, B., RAYNER, D. & WILLIAMS, A. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 59-60.

MEMBERS:

Lee Starkey, Dean Rayner and Ben Clark (COMPUTER SCIENCE)

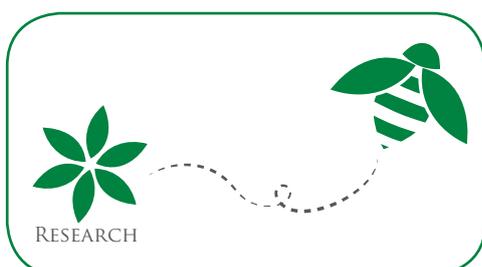
“DO MOCK EXAMS WORK?”

ISSUE

Students sat a mock exam in December and most did significantly worse than their predict grade.

CONCLUSION

Students admitted that they did not revise for the exams and just went off knowledge from exams theory lessons. When students independently went through the markscheme and worked out how to answer questions, their resit of the mock was better.



LESSON STUDY HIGHLIGHT

Members have read previous literature to inform planning

RESEARCH QUESTION:

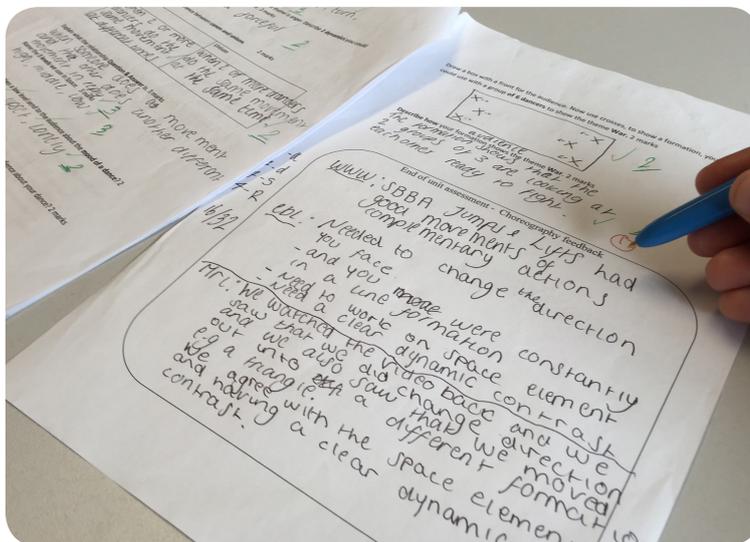
To what extent does student led learning improve mock exam results?

FOCUS:

Boys, Girls, KS4, HA, MA, LA

ACTIONS:

- To find out why the results of the mock exams were so far below target by asking students questions about their preparation.
- Discuss the importance of mock exams for students.
- To use mark scheme to answer incorrect questions.
- Students to ask other students for information if they did not understand.
- Resit mock exam.
- Sit new exam



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students take more interest in their improvement when they have control over their own learning. Students are aware of what the exam paper is asking, how many points they need to make in relation to marks available. The majority of students' overall mock grades have improved over a period of time.

IMPACT ON PEDAGOGY

Teachers will know remind the students of the importance of mock exams and change their mindset in their approach to their mock exam.

EMBEDDING IN DEPARTMENT

Increase the number of mock exams so that students are used to the procedure in addition to completing exam questions in lesson.

FURTHER RESEARCH:

How do other subjects find mock exams?

RESEARCH:

www.plotr.co.uk/advice/articles/mock-exams-how-important-are-they/

www.theguardian.com/teacher-network/2015/dec/03/practice-makes-perfect-why-mock-exams-students-brains

files.eric.ed.gov/fulltext/EJ906472.pdf

MEMBERS:

Anna Burnham and Liz Major (DANCE)

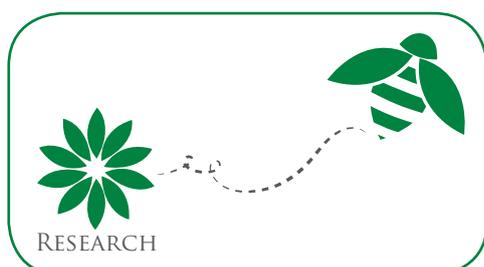
“DIFFERENTIATING THROUGH OFFICIATING IN CORE GAMES”

ISSUE

The students do not understand the rules of the game well enough to be able to fully progress and develop their practical performances.

CONCLUSION

Students took a while to get to grips with the rules and having the confidence to use the whistle. By introducing the rules at different rates according to ability and understanding and through using resource cards, the students soon began to gain confidence in giving decisions during games.

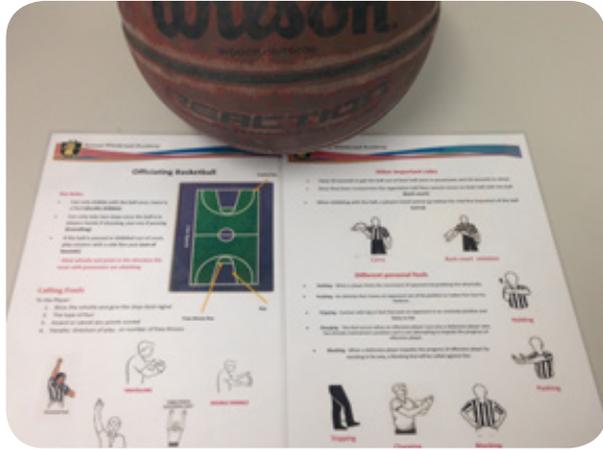


LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on pedagogy

RESEARCH QUESTION:

To what extent can differentiation within practical core games lessons, focusing on aspects other than performance, help improve knowledge, understanding and skill level?



FOCUS:

Boys, KS4, HA, MA, LA, SEND, PP

ACTIONS:

As students have done basketball in every year at school and would have focussed on the performance side of things, we decided to focus on their understanding of the sport and look at their officiating and understanding of the rules of the game. To help them with this we created resource cards which clearly explained the key rules of basketball and showed the signals a referee must give with their decisions. Resources were differentiated to different courts, with the more able looking into some of the more complex rules of the game.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students became more confident in refereeing as the unit of work progressed. They were less afraid to blow their whistle and give a decision, gradually showing an increased understanding of the rules of basketball.

It is difficult to tell if improving officiating and understanding the rules, that their performances subsequently improved. This is mainly due to the short duration of the unit and the fact that they were playing 3-a-side on small courts rather than a full sized game of basketball, so there was less space to utilise.

IMPACT ON PEDAGOGY

The approach made the teacher think about how they deliver core games lessons in future. Students often come to lessons feeling that they have covered all the skills beforehand and just wanting to play games. Putting this focus on the unit enabled the students to get a lot of game time throughout the unit while still having a focus on learning which was perhaps more subtle than they have previously experienced.

EMBEDDING IN DEPARTMENT

The impact of the unit has been fed back and will be discussed in more detail before the scheme of works are finalised for the new academic year.

FURTHER RESEARCH:

We would now look to progress to peer analysis on officiating. This would allow students to demonstrate their higher understanding of the rules while requiring them to identify strengths and weaknesses; an important criteria in GCSE, BTEC and A Level PE. Performance analysis resource cards would be created to help identify the key criteria and give a brief review of the rules and role of the official.

RESEARCH:

BEAUCHAMP, G. & PARKINSON, J. (2005), Beyond the 'wow' factor: Developing interactivity with the interactive whiteboard. *School Science Review*, 86(316), 97-104.

DFES. (2004). *Pedagogy and Practice: Teaching and Learning in Secondary Schools*. Cambridge. Crown Copyright.

KYRIACOU, C. (2007). *Essential Teaching Skills*. 3rd edn. Cheltenham. Nelson Thornes.

MAWER, M. (1999). *Teaching Styles and Teaching Approaches in Physical Education: Research Developments*. In Hardy, C.A & Mawer, M eds. *Learning and Teaching in Physical Education*. London. Falmer Press.

YATES, D. (2006). *Memory Tips for Math: Memorization and Learning Styles: The Successful way to Teach K-5 Math*. 2nd edn. Irvine, CA. Memory Joggers.

MEMBERS:

Paul Henwood, Jimmy Hart, Charlotte Davies, Claire Higginson and Tom Anderson (PHYSICAL EDUCATION)

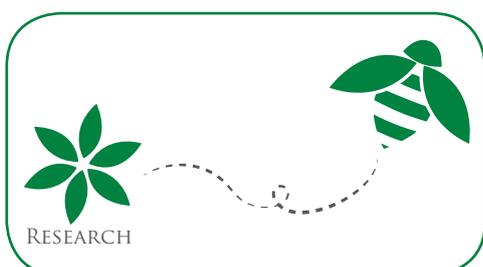
“DIFFERENTIATED REVISION GRIDS”

ISSUE

Students needed a method of revising that was less teacher-led and more independent to encourage good study skills.

CONCLUSION

We found that many students really enjoyed using the prepared grids in their revision. This tended to be students who like working independently as well as lower ability students who appreciated the structured nature of the task. We found that the second step of designing the grids was more challenging. However, it was an excellent exercise in using the specification to structure revision.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on student progress

RESEARCH QUESTION:

To what extent do differentiated questioning grids aid independent learning and revision?

FOCUS:

Boys, Girls, KS4, HA, MA, LA, SEND, PP

ACTIONS:

We started off with teacher prepared grids in a range of subjects with Year 11 students doing revision (Figure 1, and a completed grid Figure 2). This evolved into applying these grids to Year 10 and even Year 9. The next step was to get the students to create their own grids based on the specification on a particular topic area (Figures 3 & 4). This included getting them to think of the answers to their questions. The grids were shared with a peer and answered for homework.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

For some students knowing where to start with revision is an issue, particularly with a very large subject area like science. A grid for the topic gives a good grounding on the breadth of the topic and helps them to focus on all areas rather than missing bits. It was clear from the student comments that they found the grids useful; there were lots of requests for more in other topic areas. The structure of the grid allows the student to easily see their progress and for some of the less able, usually less independent learners, this was a big advantage. For the more able students getting them to use the specification to structure their revision in making their own grid was a big leap forwards; breaking it down into sections that could be more easily dealt with. It was a very challenging task for most though and getting them to think about the links within the topic, appropriate questions (with answers) and using the language of Bloom's taxonomy to differentiate, was difficult.

IMPACT ON PEDAGOGY

While these take time to produce, we now have quite a library of them to use as resources year on year, all carefully structured on the specification. These have been widely distributed and used throughout science. They are also ideal for homework and cover lessons. Switching it around so that the students designed the grid really showed difficulties for some students in making links within and between topics, we need to make sure that these links are clear while teaching.

EMBEDDING IN DEPARTMENT

This grid began as a plenary of differentiated questions and has developed from there. Next year these will be introduced earlier in the year. Following on from that, getting the students to design their own to make them focus on the specification will help their revision be more constructive, effective and complete.

RESEARCH

BLOOM, B.S. (ED.). ENGELHART, M.D., FURST, E.J., HILL, W.H., & KRATHWOHL, D.R. (1956). Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.

MEMBERS:

Jayne Moffat, Jo Haigh and Rich Sinclair (SCIENCE)

What do you know about enzymes and digestion?

Increasing Difficulty	Name at least 3 proteins that can be found in the body and where they are made.	Name 3 places in the body where amylase is made.	An enzyme is a biological catalyst. What is a catalyst?	What are the main factors that affect the rate at which an enzyme works?
	Describe what proteins are made up of and where they are made in the body.	Describe how carbohydrase enzymes are used to obtain simple sugars such as glucose.	What reactions do amylase, protease and lipase catalyse?	Describe the results of this experiment. 
	Explain as fully as you can why the action of enzymes and substrates is sometimes described as a 'lock and key'.	Describe the roles of the liver and the pancreas in the digestion of fats.	Give examples of where enzymes are used in industry.	Explain why increasing the temperature up to 60°C makes the rate of an enzyme controlled reaction decrease and eventually stop.
	You eat a cheese sandwich. Write down the stages of digestion as it passes through your gut.	What are the advantages and disadvantages of using enzymes in biological washing powders?	For the examples above, describe how/why enzymes are used.	Write a brief method for a way of determining the optimum pH or temperature for the reaction of amylase and starch.

Figure 1. A differentiated revision grid about enzymes and digestion from the additional B2 module.



Figure 2. A student version of figure 1, completed by a student.

Name 3 gases that react with acids to make ionic salts. Substances that react with acids.	When do neutralisation reactions happen? What are acid and alkali? Write out neutral equation.	Balance this equation: $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{H}_2$	What colour would the universal indicator turn when an acid of pH 2 is added? Red.
What do acids produce when they are dissolved in water? Hydrogen ions.	Explain the difference between strong and weak acids and alkaline solutions. List 3 strong acids and 3 weak acids.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.	Give an example of something with pH 7. Water.
Name 3 prepared acid salts that are common. List 3 acids and 3 bases that react with acids.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.
Explain the difference between strong and weak acids. List 3 strong acids and 3 weak acids.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.	Write the full ionic equation for the reaction between sodium hydroxide and hydrochloric acid.

Figure 3. A revision grid with answers about acids, bases and salts designed by a student in Year 11 using the specification.

Give one use for beta radiation.	Why is it impossible to see black holes?	Explain the difference between nuclear fission and nuclear fusion.	Use the periodic table to describe the number of protons, neutrons & electrons in Sulfur.
Do radioactive elements have stable or unstable nuclei?	What is a black hole formed?	Name an advantage of using nuclear fusion as an energy source rather than fossil fuels.	What are isotopes?
The constant, low level of radiation around us at all times is known as...	What force keeps the fusion reaction in place inside the Sun?	Why is it difficult to generate electricity on Earth using nuclear fusion?	Explain what a half-life is.
Give two sources of the answer to Q9.	What happens when a star runs out of fuel? What is the size of the sun, or another, uses up all of its gas?	List the uses of alpha, beta & gamma rays with their structures.	Evaluate why nuclear waste could be a hazard.

Figure 4. A revision grid about radioactivity and the stars designed by a student in Year 11 using the specification.

“UPSIDE-DOWN EXAMINING”

ISSUE

In English, high attainers lack independent reading skills and techniques in exams.

CONCLUSION

By developing questions independently on unseen texts, students are becoming more confident and critical as readers. Students are becoming more familiar with the assessment criteria and are more able to apply transferable skills.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on pedagogy

RESEARCH QUESTION:

To what extent does devising questions independently improve revision technique for HA students at GCSE?

FOCUS:

Boys, Girls, KS4, HA

ACTIONS:

Language Year 10: Adapted questions from the Language paper and applied them to Literature; constructing Language questions based on unseen texts.

- Students become familiar with the format of examination questions and answering them in lessons.
- Students are provided with unseen texts or data with which to develop their own questions in this format. This process will allow students to become more familiar with the format of questions, and also to critically evaluate the text in order to ask the 'right' questions.
- Students develop a success criteria, mark scheme and indicative content for their questions, based on their knowledge of the examination and also their own critical evaluation of the new text.
- Students then exchange questions and answer them before swapping back and marking, with appropriate feedback based on the mark scheme, and an MRI task which may use the indicative content devised.
- Any disparity between answers should be addressed and discussed, with students considering the thinking behind their decisions, and any subjectivity that may be involved.

	Q1	Q2	Q3	Q4	Q5: Writing
Paper 1	AO1 List 4 things... Identify explicit information Identify explicit ideas 4 marks	AO2 How does the writer's use of language... Comment, explain, analyse	AO2 How does the structure... Comment, explain, analyse	AO4 To what extent do you agree? Evaluate texts critically 20 marks	AO5/AO6 Descriptive or narrative writing Communicate clearly Organise information Use a range of vocab and sentence structure Accurate spelling and punctuation
Paper 2	AO1 True/false statements... Explicit and implicit ideas and information 4 marks	AO1 Write a summary... Synthesis of explicit and implicit ideas and information 8 marks	AO2 How does the writer's use of language... Comment, explain, analyse 12 marks	AO3 How the writers present... Compare writers' ideas and perspectives, and how they are conveyed 16 marks	AO5/AO6 Students write about their own views Communicate clearly Organise information Use a range of vocab and sentence structure Accurate spelling and punctuation

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Whilst students were confident with devising the questions, they were less so with creating their own success criteria, for one question in particular. This indicates that this question needs more attention, not only to us as teachers, but also to the students themselves, giving them an audit of their own skills.

IMPACT ON PEDAGOGY

By devising their own questions, students become both more familiar with the format and technique required for the examination, but also become more independent in their learning and more critical in their thinking.

EMBEDDING IN DEPARTMENT

In our study, students have made specific links between 'Literature' texts and 'Language' skills, making the connections between the two English disciplines.

FURTHER RESEARCH:

As above, this research has not only provided interesting and challenging strategies for the future, which students can develop independently, but also has helped to identify areas of weakness within their own knowledge and skillset. In the future, the devising of success criteria should be modelled more explicitly, perhaps by allowing the students to engage further with indicative content from the examination board.

RESEARCH:

DUNLOSKY, J., RAWSON, K. A., MARSH, E. J., NATHAN M. J. & WILLINGHAM, D.T. (2013), Improving Students' Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology, Psychological Science in the Public Interest, 14(1), 4-58.

MEMBERS:

Steve Fothergill, Holly Wilmot and Laura Jonson (ENGLISH)

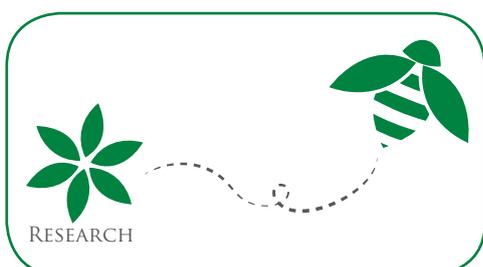
“DIFFERENTIATED QUESTIONING TO CHALLENGE & SUPPORT STUDENTS PROGRESS”

ISSUE

Often students are happy to answer a question on a uni-structural level or a pre-structural level but we wanted to look into questioning them in depth to gain and demonstrate multi-structural and rational answers.

CONCLUSION

Using the Pose, Pause, Pounce and Bounce technique of questioning we found that the ‘Pause’ phase was particularly helpful in allowing time to think of answers without letting them off the proverbial ‘hook’ to avoid answering. Further development of this is necessary and specific student targeting is key.



LESSON STUDY HIGHLIGHT

Case students have been identified and their responses to the planned activities are anticipated and observed

RESEARCH QUESTION:

To what extent does using 'Pose, Pause, Pounce and Bounce' (PPPB) with differentiated questioning facilitate student support and progress?

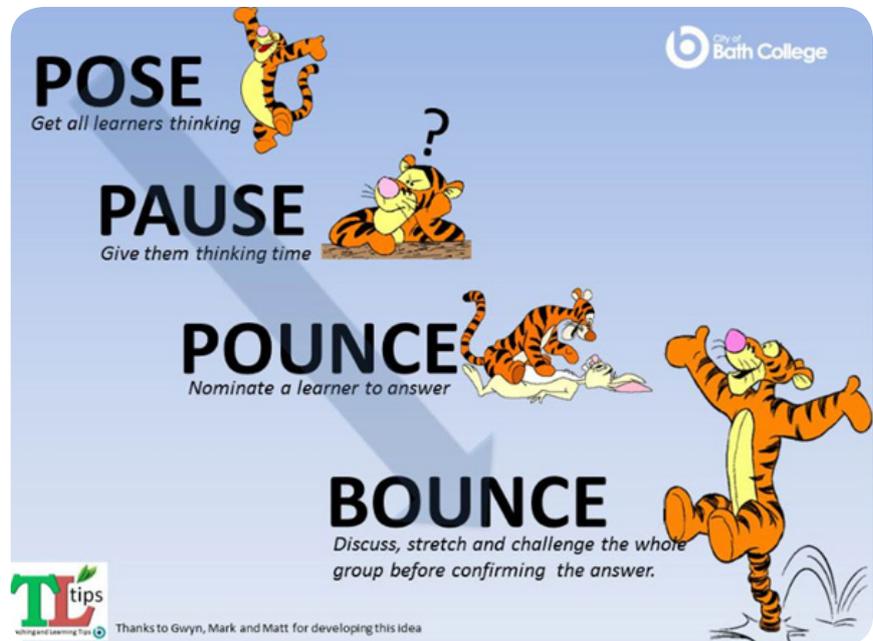
FOCUS:

Boys, Girls, KS5, MA, LA, PP

ACTIONS:

Students were given a prepared case study with a variety of clients (based on the BTEC task). Students were then asked to make the links and justification to the client's lifestyle factors. Students were given opportunities to share client's needs in group discussions.

The teacher used differentiated questions to extract correct answer using PPPB directed towards the two focus students. The discussion and group work was followed by the presentation of the BTEC Task. Students then applied newly found/developed knowledge.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Both of the focus students were able to develop answers from a uni-structural level into a multi-structural level based on the differentiated questioning and the PPPB questioning. Students were able to demonstrate the following qualities in their answers as a result – compare/contrast, explain causes, sequence, analyse, part/whole, relate and apply.

IMPACT ON PEDAGOGY

Teachers are able to improve planning and delivery of lessons due to PPPB forcing a change in mind set in differentiated questioning.

EMBEDDING IN DEPARTMENT

Planning to have specific focus on lower ability students forcing them to develop from merit students to distinction students.

RESEARCH:

www.youtube.com/watch?v=fGehZsYtniY

www.learningspy.co.uk/tag/pose-pause-pounce-bounce/

ctl.byu.edu/tip/hands-down-pose-pause-bounce-and-pounce

MEMBERS:

Oli Daniels, Kate West, Rich Candlin and Edd Rhodes (PHYSICAL EDUCATION)

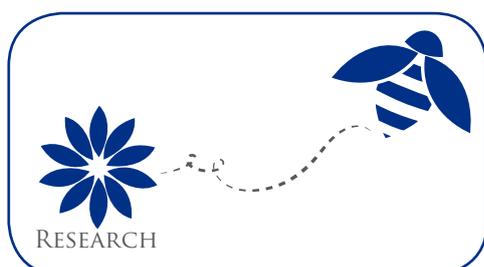
“DIRT-Y WORK: IMPROVING STUDENTS’ RESPONSE TO FEEDBACK”

ISSUE

Improving the quality of ‘My Response Is’ (MRI) or Directed Improvement and Response Time (DIRT) through support and resources.

CONCLUSION

We found that students relish the opportunity to work from a checklist-like approach to evaluating and improving their work, but that over-complicated Fix-It packs can often be too daunting, especially for under-performing students.



LESSON STUDY HIGHLIGHT

Case students have been identified and their responses to the planned activities are anticipated and observed

RESEARCH QUESTION:

To what extent can feedback for exam techniques and using DIRT improve exam responses?

FOCUS:

Boys, Girls, KS4, HA, MA, LA

ACTIONS:

Planned three cycles of evolving Fix-It packs to assist with analytical writing:
STAGE 1 – Fix-It packs for each key area of student weakness (7 identified).
STAGE 2 – Simplified versions of packs used with the same group.
STAGE 3 – Simplified version trialled with a lower ability group of students.

Have developed **alternative interpretations**

Key words

connotations interpretation alternative contrast
antithesis counter-argument comparison ambiguity

Key questions

WHAT is the most obvious interpretation of your topic?
WHAT might somebody say who disagreed?
WHAT evidence might they use to support this new interpretation?
HOW do the original and alternative interpretations compare against each other? Which is more relevant? Which is more believable? Which is more useful?
WHY might the writer want the reader to interpret this topic in more than one way?

Key sentence starters

At first glance... However, on closer inspection...
Some readers might propose that... Other readers might argue...

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Five case students were able to make more meaningful improvements to an existing piece of Literature assessment. Long-term progress is difficult to assess in terms of data. Student confidence in DIRT time is much improved.

IMPACT ON PEDAGOGY

Once teachers have created the packs appropriate to the relevant skill (e.g literature analysis), the teacher input is fairly minimal, whilst still allowing fix-it tasks to be tailored to specific needs.

EMBEDDING IN DEPARTMENT

Embedding this into schemes has yet to be tested, with the intention being to incorporate fix-it kits for all key English skills for next year's Year 9 cohort.

FURTHER RESEARCH:

We would like to examine ways in which 'fix-it' packs might be embedded into the SoL so that students are aware of the expectations and how it works without prompting.

RESEARCH:

GARBER, T. L. (2008), The effect of written feedback on formative assessment on students' performance in a high school class, Thesis. University of Delaware .

GLASSON, T. (2008), Improving student achievement – A practical guide to assessment for learning, Curriculum & Leadership Journal, 6(31).

HAGGER, H. & MCINTYRE, D. (2006), Learning Teaching from Teachers: realising the potential of school-based teacher education. Maidenhead: Open University Press.

WIGGINS, G. (2012), 7 Keys to Effective Feedback, Educational Leadership, 70(1), 11-16.

MEMBERS:

Dave Hetherington, Amy Rolleston and Sarah Sinclair (ENGLISH)

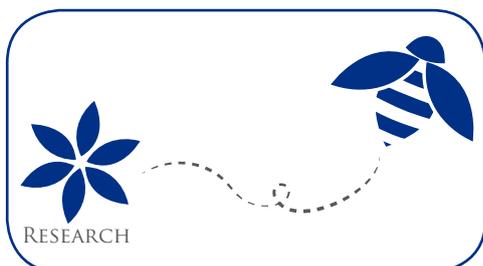
“GETTING BOYS TO DO THEIR HOMEWORK!”

ISSUE

KS2 mid to lower attaining boys were underachieving and we felt that this was, in part, due to their lack of independent study. Some of the target group at the start were completing homework sheets in detention and poorly.

CONCLUSION

The feedback given is now more suitable to the individual as it is based on what they can't do rather than what they could not be bothered to do. Students now all hand sheets in on time and have improved their effort with regards to showing method and amount completed. Discussion with students show that they enjoy and value STAR feedback sessions.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on pedagogy

RESEARCH QUESTION:

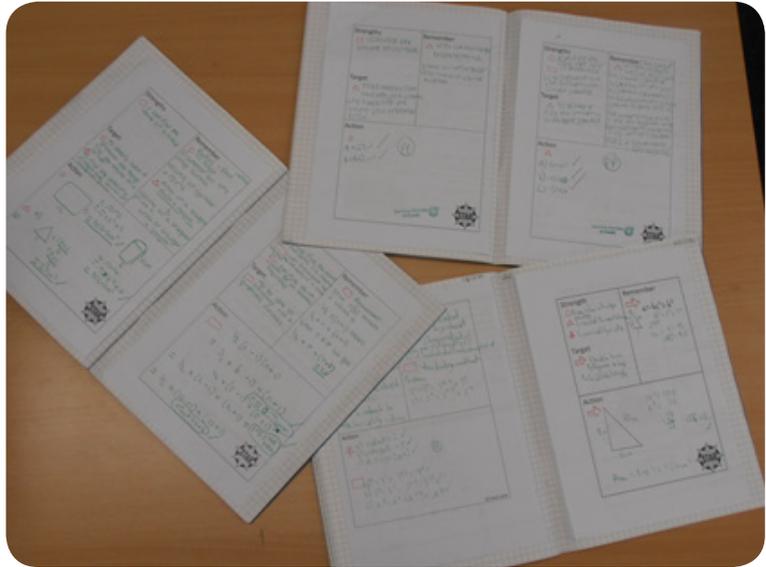
To what extent can STAR marking engage Year 10 MA and LA boys in completing high quality homework?

FOCUS:

Boys, KS4, MA, LA

ACTIONS:

Praise points were given to students who showed improved understanding after feedback had been given on their homework – measured by whether or not they had completed the action successfully. Students who had not completed a homework in time for the feedback session had to attempt all the actions – because they had not demonstrated any understanding of any of the topics. Post cards were sent home each term for anyone who had achieved 5 or more praise points during that term for STAR marking. Students were asked their opinions after the first lesson and again after Easter.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

It is difficult to isolate the impact of this measure from the impact of setting detentions. The short term impact noticed since the study began is that students are now responding positively to feedback on their homeworks and showing an improved understanding of those topics commented on. They are asking further questions to improve their understanding if they feel that feedback needs further elucidation.

IMPACT ON PEDAGOGY

The process helped the teacher to see the impact of targeted feedback on students who are engaged in their learning. This has made an impact on the teacher's practice in the classroom having reminded them that the use of praise can be a more positive way to get students engaged with their work.

EMBEDDING IN DEPARTMENT

STAR marking sheets have been produced for the whole of Year 9 and are now being produced for Year 10's and Year 11's. When planning the assessment timeline, the spacing of homework and the need for time to feedback has been considered and problematic periods (such as when students are sitting exams) identified.

FURTHER RESEARCH:

When we first interviewed the students the girls were very positive about the use of praise whereas the boys were more resistant and claimed that they would do homework to avoid punishment rather than for the reward. This suggests the question of whether this technique works in the same way for boys as for girls and has the same impact.

RESEARCH:

LEARNING PYRAMID, NTL Institute for Applied Behavioral Science, 300 N. Lee Street, Suite 300, Alexandria, VA 22314. 1-800-777-5227.

RUGER H. A., & BUSSENIUS C. E. (1913), Memory: A Contribution to Experimental Psychology (Ebbinghaus, H. trans) New York by Teachers College, Columbia University. 1885.

MEMBERS:

Rebecca Nunan, Arron Beckett and Vimal Wadhera (MATHEMATICS)

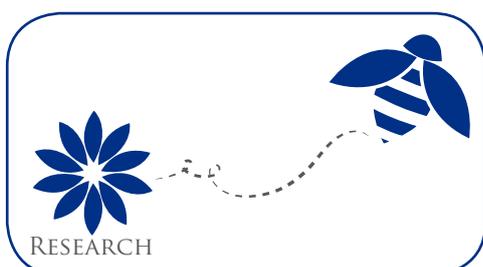
“USING MARK SCHEMES TO IMPROVE THE USE OF SCIENTIFIC TERMINOLOGY”

ISSUE

Students were answering questions correctly but were still losing marks due to the quality of scientific terminology being used. In science GCSE exams, the difference between a C and an A grade can sometimes be as little as 5 raw marks.

CONCLUSION

We found that after the study the students were making small gains in raw marks over many of the questions set. This increased performance led to a sizable improvement in overall grades with the majority of the students.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on pedagogy

RESEARCH QUESTION:

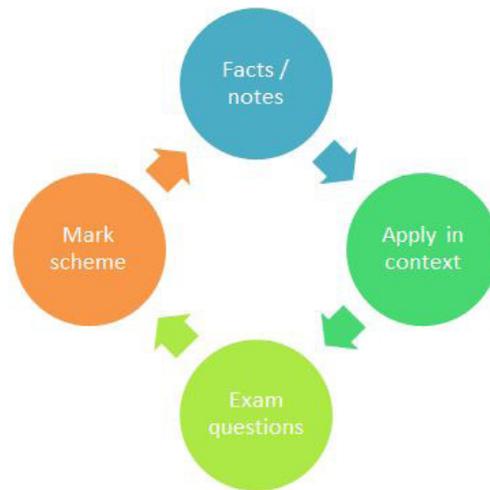
To what extent can using metacognition allow higher ability students to plan successful revision activities for GCSE science?

FOCUS:

Boys, Girls, KS4, HA

ACTIONS:

In order to change student habits and get them to think about the process of how they tackle revision techniques the following actions were taken. Firstly, students had to identify the questions in the Biology 1 (B1) exam papers that linked to specific aspects of the specification, then type the question number and year of exam onto those aspects of the specification. The students were given the B1 specification and four sets of B1 exam papers & mark schemes in a folder. Rather than follow the usual procedure of working through the whole exam, the students were shown the revision cycle below, and asked, in pairs, to start at the exam question phase. They identified a particular area of the specification, then worked together to see if they could verbally answer the questions. Answers were checked against the mark schemes and only after this point did they complete their revision notes, based solely on the mark scheme's scientific terminology. They were asked to look for trends and patterns, i.e. key terminology that kept being repeated in similar questions in the different mark schemes. Students then had an opportunity to apply this knowledge in context, in a variety of different ways, to help to embed the knowledge into their memories, before tackling the exam question again. However, this time they wrote their answers individually and then peer marked once finished.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Impact on performance was seen during the lesson but what effect this had on longer term memory is difficult to quantify in this short study.

IMPACT ON PEDAGOGY

Revision is difficult for most students. They will usually just focus on copying notes from books and have a tendency to avoid the difficult subjects and just focus their time on what they know already! By systematically breaking down the specification into smaller chunks it gave the students the opportunity to test what they know. Using model answers from the mark schemes, it allowed the students to reduce the time taken to revise each section, whilst also ensuring that the specific key terminology was being revised and then used within their answers.

FURTHER RESEARCH:

We intend to investigate the use of websites such as www.bbc.co.uk/news/health-22565912 to help with revision activities.

RESEARCH:

ELLIS, A. K., DENTON, D. & BOND, J. (2014), An analysis of research on Metacognitive teaching strategies, *Procedia – Social and Behavioural Sciences*, 116, 4015-4024.

MORRIS, G. (2014), *Metacognition – Cultivating Reflection to Help Students Become Self-directed Learners*, Sweetland Center for Writing, University of Michigan.

MEMBERS:

Emily Adams, Rob Graves and Ian Butler (SCIENCE)

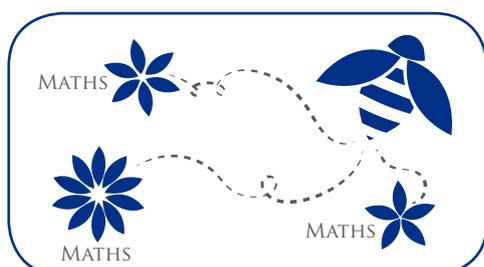
“USING VERBAL FEEDBACK AS A TOOL TO HELP STUDENTS MAKE PROGRESS”

ISSUE

In Film Studies and IT we found ourselves using verbal feedback regularly to aid independent learning. However, we hadn't focussed on how to record and share this or how to develop the quality and style of feedback.

CONCLUSION

Students were able to access their feedback independently, and teachers were able to give this verbal feedback with ease. Focus for teachers turned to the quality and style of feedback and how students were to respond as the technology allowed for the feedback to be recorded and shared quickly.



LESSON STUDY HIGHLIGHT

The pedagogy developed in the lesson study is being embedded in the department

RESEARCH QUESTION:

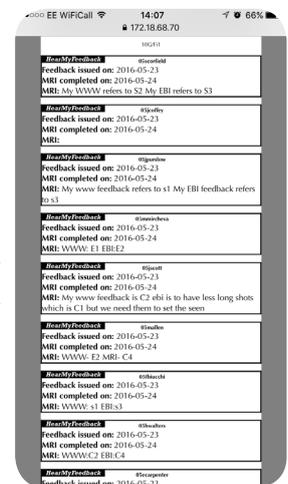
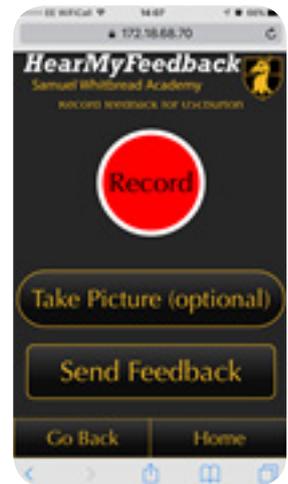
To what extent can using www.hearmyfeedback.co.uk allow teachers to record and deliver effective verbal feedback so students make progress?

FOCUS:

Boys, Girls, KS4, HA, MA, LA, PP

ACTIONS:

When we were giving feedback, before the software was produced, time was spent creating focused written success criteria which was then put into a coding system for the students to use. During independent project time the teacher was able to use this to direct the feedback while students could correlate this to the success criteria. With the use of the questioning grid, the teacher was able to construct a feedback question easily, but it was difficult to circulate the whole classroom within the hour. When www.hearmyfeedback.co.uk was created it was used by the teacher to record and share the feedback before the lesson. The feedback followed clear success criteria (as above) and was recorded and sent using the new platform. Students accessed the feedback in lesson, writing their MRI on the website that both stored and sent this action to the teacher. The focus was on the style and quality of the feedback.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

It would be hard to measure the difference it has made already to student progress but 73% of students said the feedback was 'very easy' to access and find. All students were able to link their audio feedback to particular area of the success criteria as all sent their MRI back before working towards this target in the lesson. This, therefore, gave evidence that students can be independent in accessing, understanding and responding to verbal feedback.

IMPACT ON PEDAGOGY

Time for teachers should now be spent on the style and quality of feedback. Developing clear success criteria that helps students to meet the assessment objectives and directing feedback to this should become the focus. Time spent assessing work after lessons using www.hearmyfeedback.co.uk and using the platform in lesson gives the teacher more opportunities to give feedback to students. The freedom verbal feedback gives you is that it can be more detailed and less time consuming.

EMBEDDING IN DEPARTMENT

Teachers will need to develop, prepare and schedule their assessments. When and how these will be delivered using the website needs to be considered. Again, preparing success criteria means that feedback can be focussed. And developing a routine of how students respond to this (in lesson or as homework perhaps) is needed.

FURTHER RESEARCH:

Research on how it can be useful in delivering formative feedback for extended writing tasks. More educational research on the style and quality of assessment feedback will help in constructing the best feedback for our students.

RESEARCH:

- HATTIE, J. & TIMPERLEY, H. (2007), The power of feedback, *Review of Educational Research* 77(1), 81-112.
- SHUTE, V. J. (2007), Focus on formative feedback, ETS, Princeton, NJ.
- BELL, B. & COWIE, B. (2001), Teacher development for formative feedback, *Waikato Journal of Education*, 7(1), 37-49.
- RONAYNE, M. (2001), Marking and feedback, *NFER*, 26, 1-6.
- NUNAN, R., BARTLETT, T. & HALL, D. (2015), *Anthecology: Lesson Study Journal*, Halcoyn-Press, 1, 47-48.
- MINKER, L., FERNANDES, P. & MARTIN, N. (2015), *Anthecology: Lesson Study Journal*, Halcoyn-Press, 1, 49-50.
- STEELE, A., WALL, C. & TOGHER, J. (2015), *Anthecology: Lesson Study Journal*, Halcoyn-Press, 1, 53-54.

MEMBERS:

Carl Tonking, Rob Robson (FILM STUDIES) and Ben Clark (COMPUTER SCIENCE)

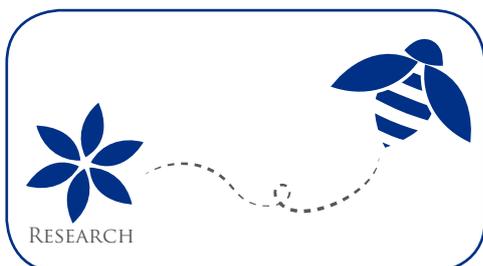
“GRADE EARNING THROUGH INDEPENDENT LEARNING”

ISSUE

In Modern Foreign Languages (MFL), students must work independently in class, but struggle with developing the skills required to achieve or exceed their target grade in Controlled Assessment.

CONCLUSION

After undertaking the quiz distributed by the teacher, students successfully identified their learning style. Initially, students seemed enthusiastic to adopt the suggested strategies to improve their techniques when memorising material. Within the lesson students made encouraging progress, and this was reflected in their Controlled Assessment grades.



LESSON STUDY HIGHLIGHT

Feedback from students about the lesson has been gathered and used in the review

RESEARCH QUESTION:

To what extent can the development of independent learning skills contribute to improving students' performance?

FOCUS:

Boys, Girls, KS4, HA, MA, LA

ACTIONS:

After setting the GCSE written controlled assessment task, a quiz was distributed so learners could establish their Visual, Auditory and Kinesthetic (VAK) learning style. Students worked in groups to adopt recommended strategies specific to their learning style, with a view to memorising part of their Controlled Assessment. During the lesson the teacher supported students, and tested them as necessary to help develop their confidence to continue with their chosen learning strategy. At the end of the lesson, students were required to write from memory in order to demonstrate their success with the strategies adopted. This was then followed by peer assessment (RAG system). Students were tested again in the following lesson with a view to tracking progress. The success of the intervention was followed up with a questionnaire which was distributed to students to encourage students to reflect on their effort and the impact on their own learning and understanding.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students' average Controlled Assessment score in relation to Target Grade improved. 75% of students made progress, of which 25% improved by more than one grade. 58% achieved a better grade than they had previously, with 17% improving by more than one grade. There are 2 students who are achieving their Target Grade and 4 students surpassing their Target Grade

IMPACT ON PEDAGOGY

Teachers discussed and analysed data from underachieving students in Languages. The department have worked collaboratively to plan SoL which will accommodate a variety of teaching and learning methods in order to encourage independent learning. Teachers have deepened their pedagogical research skills.

EMBEDDING IN DEPARTMENT

We need to consider techniques suited to different learning styles and incorporate these into the new SoL. Resources are to be used regularly to save planning and lesson preparation time. Teachers will give students' input and ownership in lessons in order to ensure sustained progress.

FURTHER RESEARCH:

It would be useful to undertake further research into different learning styles to see if more needs to be considered, and accommodated in the MFL classroom. We also need to consider how the approaches adopted as part of this Lesson Study can be adapted to account for the change in specification where there will not be any Controlled Assessment.

RESEARCH:

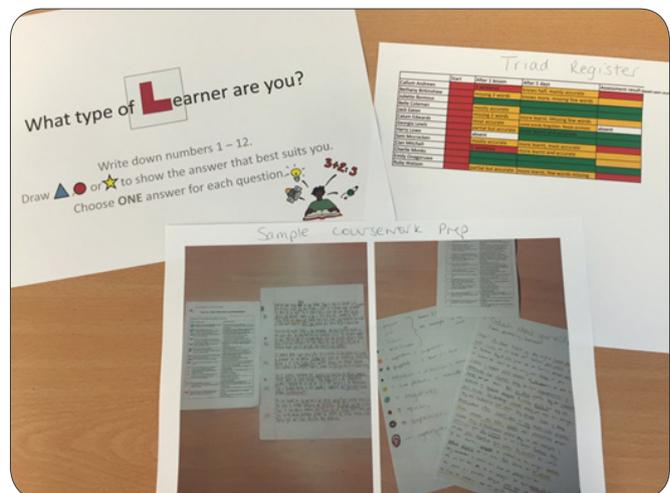
BENSON, P. & VOLLER, P. (1997). *Autonomy and independence in Language Learning*. London: Longman.

BENSON, P. (2011). *Teaching and Researching Autonomy in Language Learning*. 2nd edition. Harlow: Longman/Pearson Education.

BREEN, M.P. & MANN, S. (1997). Shooting arrows at the sun: Perspectives on a pedagogy for autonomy. In P. Benson and P. Voller (eds) *Autonomy and Independence in Language Learning*. London: Longman, pp. 132-49.

MEMBERS:

Victoria Fletcher, Abby Hampstead and Marion Reydet (MODERN FOREIGN LANGUAGE)



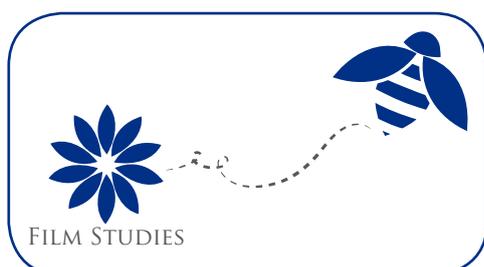
“IMPROVE YOUR GRADE IN PSYCHOLOGY USING THE LONGER ANSWER QUESTION”

ISSUE

The ten mark question was often being left blank by lower ability students and not completed to a good standard by higher ability students.

CONCLUSION

The students reported a greater level of confidence tackling the questions using the frameworks and resources we developed. Most students are completing the longer questions and the improvements are filtering through to the shorter answer ‘explain’ and ‘evaluate’ questions giving a secondary effect that was unexpected.



LESSON STUDY HIGHLIGHT

The pedagogy developed in the lesson study is being embedded in the department

RESEARCH QUESTION:

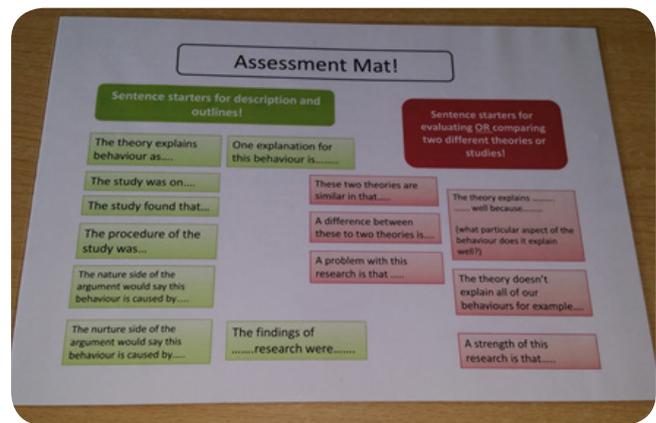
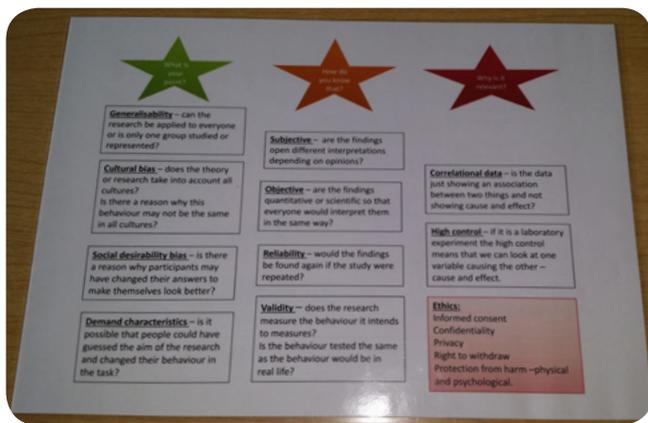
To what extent can improving the level of detail in extended exam questions improve the number of marks attained in the Unit 2 GCSE exam?

FOCUS:

Boys, Girls, KS4, HA, LA

ACTIONS:

We created a resource of information for sentence starters and evaluative terminology. This was reflected on the walls as a display to refer to, as well as a targeted resource.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

By developing their answers from the resources created, we have seen that students are accessing more of the marks on the exam paper.

IMPACT ON PEDAGOGY

Teachers now have a teaching strategy for working on longer answers and we have embedded it across the GCSE course.

EMBEDDING IN DEPARTMENT

In Year 10 classes teachers are being guided to include a 10 mark activity in all topic areas to generate more practice time for students.

FURTHER RESEARCH:

We need to compare current exam results with previous exam results to see if this cohort are more able to achieve in the ten mark questions. We would expect the impact to be even more apparent when the Year 10 cohort come through in Summer 2017.

RESEARCH:

TONKING, C., HARRIS, J. & ROBSON, R. (2015), Anthecology: Lesson Study Journal, Halcoyn-Press, 1, 55-56.

MEMBERS:

Lauren Nye, Flo Oetgen and Steph Little (PSYCHOLOGY)

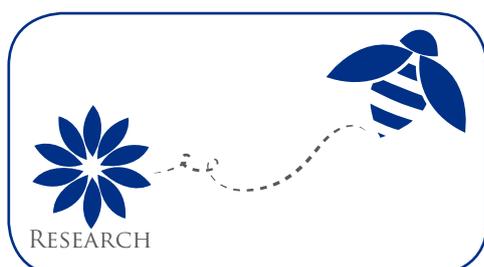
“IMPROVING THE MARKING AND FEEDBACK FOR DATA HANDLING EXERCISES”

ISSUE

We had concerns that data handling skills were a weak area in science – with all attainment levels, including the C/D borderline students, underachieving. We also anticipated these skills being a focus in future science exams.

CONCLUSION

A writing frame and checklist encouraged the students towards being more responsible for their own work and also made marking and feedback quicker and more focussed. Some teachers may want to adapt the writing frame to reflect different needs for their classes, and we could take it further next year, including opportunities for more differentiation.



LESSON STUDY HIGHLIGHT

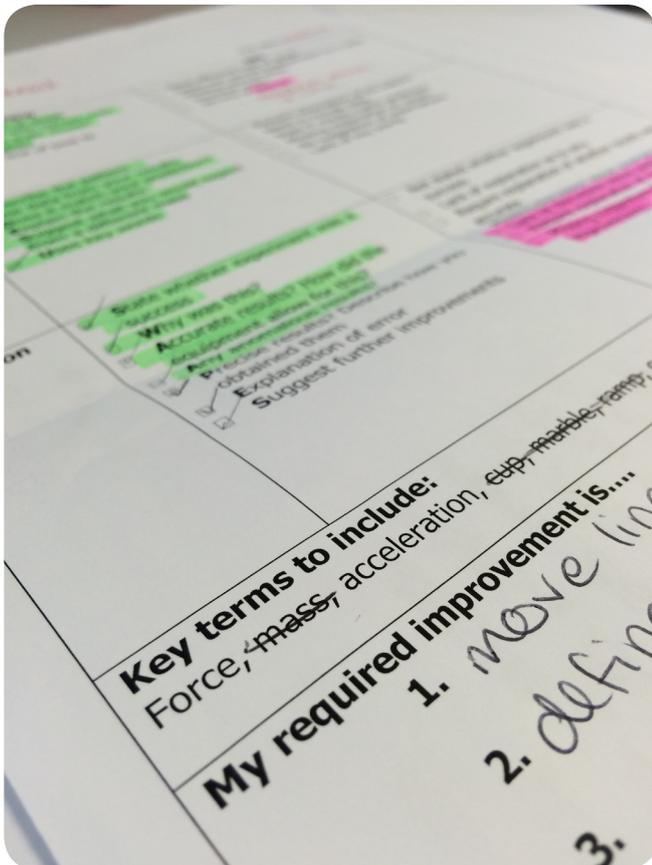
The pedagogy developed in the lesson study is being embedded in the department

RESEARCH QUESTION:

To what extent does the consistent use of a checklist and terminology improve the quality of longer written answers about data handling?

FOCUS:

Boys, Girls, KS4, HA, MA, SEND



ACTIONS:

“Formative assessment is a constantly occurring process, a verb, a series of events in action, not a single tool or a static noun” (Black & Wiliam, 1998).

We created a writing frame and checklist to encourage students to be more responsible for their own work and learning.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Anecdotally students prefer the framework and checklist. Students have requested it as a support structure to help them with constructing longer written answers (conclusions, evaluations). Improvement in the use of key words in describing and explaining data.

IMPACT ON PEDAGOGY

Marking and feedback is streamlined.

EMBEDDING IN DEPARTMENT

Embed into experiment and data handling exercises throughout the curriculum – and make sure it is adapted for the new GCSEs.

FURTHER RESEARCH:

Tailoring the writing frame for a range of abilities, using opportunities for differentiation; making sure the framework is relevant to the new GCSE. Take this further into next year and develop a bank of differentiated assessment resources using the right language and tailored for the new curriculum.

RESEARCH:

BLACK, P & WILIAM, D. (1998). Inside the Black Box: Raising standards through classroom assessment, School of Education, King's College, London, United Kingdom.

www.ncte.org/library/NCTEFiles/Resources/Positions/formative-assessment_single.pdf

MEMBERS:

Susie Hoad, Stephen McReynolds and Emma Gibbs (SCIENCE)

“EXAM PREPARATION”

ISSUE

The department has acknowledged that coursework takes longer than anticipated and the weak area for students is their inadequate exam preparation and methodology.

CONCLUSION

Although the lessons structure to support exam technique and knowledge of the exam layout paper was designed, students at KS4 did not engage particularly well as they were unable to access the information successfully.

LESSON STUDY HIGHLIGHT

Members have read previous research literature to inform planning

RESEARCH QUESTION:

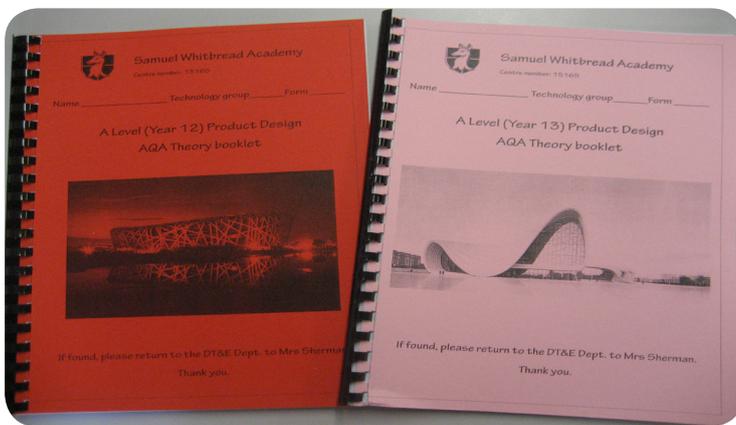
To what extent will the introduction of structured theory exercises given to students regularly improve overall Levels of Progress (LOP) at GCSE?

FOCUS:

Boys, Girls, KS4, KS5, HA, MA, LA

ACTIONS:

Previous exam question results were looked at to identify specific areas of weakness. An initial layout for exam paper to identify question type was provided. One question type was worked through to provide basis for successful answering. Also, the exam paper's questions were analysed to see if there was a pattern. This was incorporated into the theory worksheets where possible with a booklet being produced. Background homework was given out prior to the lesson. An exam question was split amongst the group. They then answered the exam question (answers given by the teacher) and peer assessed it afterwards. All work was photocopied as a bank of resources for each student.



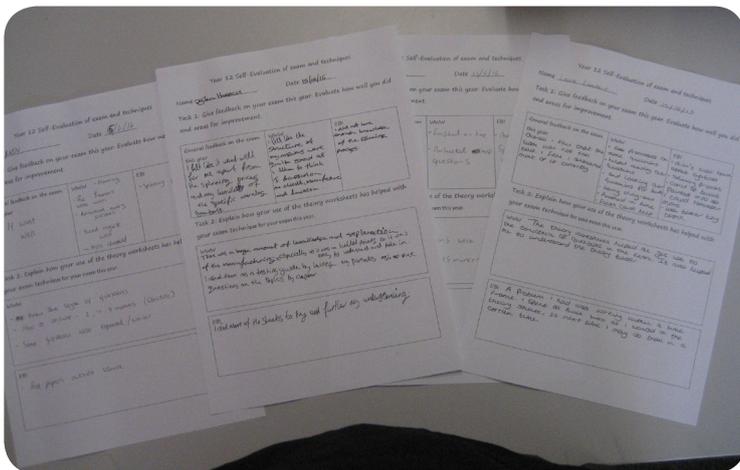
FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

The impact will be measured and assessed when the GCSE results are published in August 2016. However, students at KS4 did not engage particularly and were unable to access the information successfully.

EMBEDDING IN DEPARTMENT

Prepared lessons structure to support exam technique and knowledge of the exam layout paper. The exam paper is split into a design (exam theme provided by the exam board) and manufacturing information. A booklet format has been produced for Year 13.



FURTHER RESEARCH:

Further research into successful exam questioning and adding sample answers. It would also be useful to link the theory to relevant exam questions.

MEMBERS:

Celia Trenchard and Michelle Sherman
(DESIGN TECHNOLOGY AND ENGINEERING)

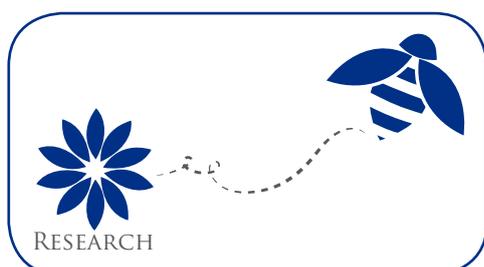
“EFFECTIVE USE OF PEER AND SELF-ASSESSMENT”

ISSUE

We felt there was a greater need for students to take more responsibility for their learning, particularly amongst coursework assessed units where feedback is constantly being given.

CONCLUSION

As assessment was the main focus of the DLS, students began to realise the importance of not only receiving ‘good’ feedback but more importantly, we wanted them to understand why it was vital that they spent some allocated time writing up constructive feedback to give to their peers. It became apparent that this process could not be rushed as students needed to refer back to success criteria and use subject specific key terms.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on student progress

RESEARCH QUESTION:

To what extent can effective use of formative assessment improve progress rates amongst KS4 MA students?

FOCUS:

Girls, KS4, MA

ACTIONS:

Firstly, success criterion were created in 'student talk' terminology as we found that although students were given copies of the marking criteria, they did not necessarily refer to it due to a lack of understanding of technical terms used by the exam board. From this, time was spent getting students to understand how to pick out the key points of work that were being assessed in order to give effective feedback. Students took part in a lot of discussion based activities and paired work to ensure they were confident before tackling tasks independently. Finally, when students became more familiar with this process and knew what was expected of them, they had the confidence to assess a piece of work on their own without the support of others.

Peer assessment of an Evaluation

Name: Charlotte Marshall

Marking Criteria	YES	NO
Did they briefly introduce this piece of work?		<input checked="" type="checkbox"/>
Have they mentioned all the services their client uses?	<input checked="" type="checkbox"/>	
Do they show an understanding of how their (PIES) needs are being met? This is important and must be carried out in detail.	<input checked="" type="checkbox"/>	
Have they discussed the potential barriers their client faces?		<input checked="" type="checkbox"/>
Do they show an understanding of the impact their condition has had on their life?	<input checked="" type="checkbox"/>	
Have they neatly presented their work?	<input checked="" type="checkbox"/>	
Have they used references? It is not essential but you may see some		<input checked="" type="checkbox"/>
Have they used specialist key terms e.g. referrals, partnerships et	<input checked="" type="checkbox"/>	

Comments to consider when writing my evaluation...

- to add barriers, partnerships.
- my clients needs + services.
- referencing.
- key terms.
- introduce work.

FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

Students were able to show greater levels of progress when they were paired up with someone of mixed ability (peer teaching). They were much more critical of each other's work than first anticipated.

IMPACT ON PEDAGOGY

Teachers should continue to focus on 'What makes feedback effective?' as students will often need reminding, particularly if they are assessing new knowledge.

EMBEDDING IN DEPARTMENT

Each lesson should have an element of peer or self-assessment so it becomes more of a fixed focus for students across all of their lessons. Teachers should not be afraid to spend a whole lesson on getting the students to complete a MRI task.

FURTHER RESEARCH:

Continue to embed more peer and self-assessment points in our new SOL.

RESEARCH:

BLACK, P & WILIAM, D. (1998), Inside the Black Box: Raising Standards through Classroom Assessment, School of Education, King's College, London, United Kingdom.

MEMBERS:

Kim Blessing, Katrina Chamberlain and Karen Dear (HEALTH AND SOCIAL CARE AND CHILD DEVELOPMENT)

Name: charlie

Self-assessment sheet - Barriers

Pride of work	✓	X
Is your full name in the header? Top right hand side	<input checked="" type="checkbox"/>	
Have you correctly titled their work? 'Barriers'	<input checked="" type="checkbox"/>	
Is your work word processed?	<input checked="" type="checkbox"/>	
Have you used a font no bigger than size 12?	<input checked="" type="checkbox"/>	

Introducing the barriers		
Have you provided a brief introduction of your work?		<input checked="" type="checkbox"/>
Have you identified/ listed all 6 barriers?	<input checked="" type="checkbox"/>	
Have you provided a definition for all 6 barriers?	<input checked="" type="checkbox"/>	
Have you given a generic example for each barrier type?	<input checked="" type="checkbox"/>	

Applying the barriers to your client		
I have identified the barriers my client faces for each service	<input checked="" type="checkbox"/>	
I have explained in detail how this barrier affects them	<input checked="" type="checkbox"/>	
I have explained ways that this barrier can be overcome	<input checked="" type="checkbox"/>	
Overall, I show a sound understanding of the barriers my client faces through the range of examples given.	<input checked="" type="checkbox"/>	

References/ Literacy		
Have you provided references of research in your work?	<input checked="" type="checkbox"/>	
Have you number referenced their work?	<input checked="" type="checkbox"/>	
Is your use of Literacy completed to a high standard?	<input checked="" type="checkbox"/>	

www definitions included

in add a brief intro to what barriers are, and how barriers can be overcome

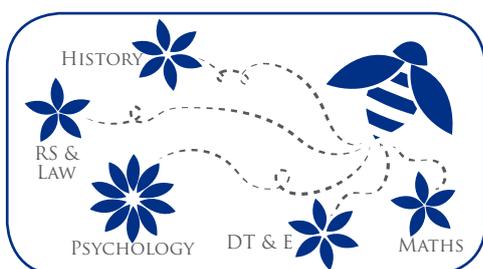
“WHAT LEVEL OF SPECIFICITY IS REQUIRED FOR AN EFFECTIVE MRI?”

ISSUE

There are a variety of Fix-It tasks, which can be used and we wanted to establish which activities enable the greatest student progress.

CONCLUSION

A Fix-It kit does not have to be entirely individual. However, students found that activities linked to a specific skill they had been told to work on in their EBI, rather than just looking at more generic exemplar paragraphs, was more useful and allowed them to feel that they had progressed further.



LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on student progress

RESEARCH QUESTION:

To what extent does the level of specificity of a Fix-It kit have on improving student progress?

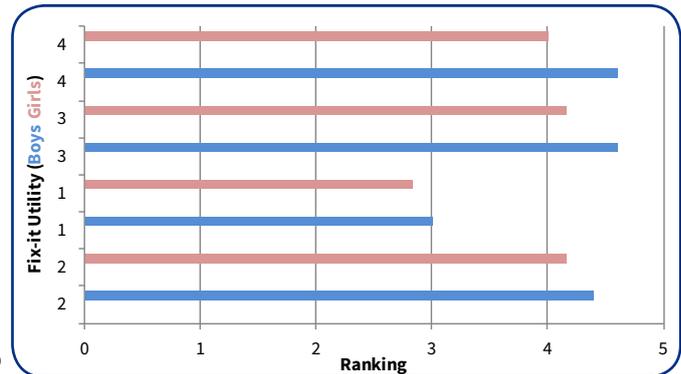
FOCUS:

Boys, Girls, KS5, HA, PP

ACTIONS:

The following tasks were trialled with a Year 12 group.

1. Example strong and weak paragraphs were provided so students could assess and establish the difference. These used the same question types as the ones the students had answered.
2. Students highlighted their essay for key assessed features, and, with EBI from their teacher, decided what skill they needed to work on the most.
3. Students were given a Fix-It kit to work on the specific skill they felt they needed to focus on the most.
4. Students were asked to apply their new understanding of the skill they had been working on to their own essay by re-writing two paragraphs and their conclusion.



FINDINGS, IMPACT & EMBEDDING:

IMPACT ON STUDENT PROGRESS

The work that was completed due to working with the relevant Fix-It kits showed clear improvement in the skill the student was working on. We found that students made most progress, and preferred to work on the most specifically focussed elements of the Fix-It tasks – those that helped them work in the relevant skill for that assessment. We found that the target students were weaker on the most generic element of the activities (the exemplar paragraphs) and had only done ‘reasonably well’ according to observations, these were also least liked by students.

IMPACT ON PEDAGOGY

We realised that establishing the relevant skills for assessments and which one students needed to work on was key. This has required knowledge of the assessment objectives and how they need to be applied in an exam question. This allowed us to consider which skills students needed to work on, as well as getting students to think for themselves about what they needed to focus on, which made the Fix-It kits more effective in students making progress.

EMBEDDING IN DEPARTMENT

This was completed with Year 12 students and the idea of skills based Fix-It kits is now being applied across other year groups. This has led us to adapt our symbol marking system to focus on key skills linked to the assessment objectives and apply this to our assessment trails.

FURTHER RESEARCH:

To continue research of Fix-It kits linked to a specific skill, and trialling differentiating them by assessment level. We are looking into ‘closing the circle’ using highlighting tasks and peer and self-assessment activities of the MRI to assess how far the fix-it kits have been successful for individual students.

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MEMBERS:

Julia Haynes, Mike Inns and Paul Barton (HISTORY)

“CODED FEEDBACK”

ISSUE

Ensuring that C/D borderline students achieve the C rather than the D grade.

CONCLUSION

The majority of case study students improved their grade, making expected progress in line with KS2 results and allowed them to be placed in the ‘good’ band for the piece of coursework. Two students made more than expected progress and achieved marks in the ‘excellent’ band for their coursework. Overall, 80% students improved their mark.

LESSON STUDY HIGHLIGHT

The lesson study demonstrates an impact on student progress

RESEARCH QUESTION:

To what extent can EBI and MRI of written work (at GCSE Unit 1 and 2) improve the attainment of students moving from a D to a C grade overall in order to gain 3+ LOPs?

FOCUS:

Boys, Girls, KS4, MA

ACTIONS:

In GCSE we have mixed ability groups and we need to ensure that our MA students can achieve as well as HA students. We created writing supports to help students when drafting coursework in lessons. Drafts were marked using the writing supports and coding the components on feedback sheet for students. There was also room for additional comments. Students went onto complete their coursework for final submission, but this was their MRI task.

			Unit 2 DR Mock	Unit 2 DR
Student A	N	D	3	↑5
Student B	4a	B	5	↑6
Student C	3b	C	5	↔5
Student D	4c	B	4	↑7
Student E	3a	C	3	↑7

FINDINGS, IMPACT & EMBEDDING:

IMPACT OF STUDENT PROGRESS

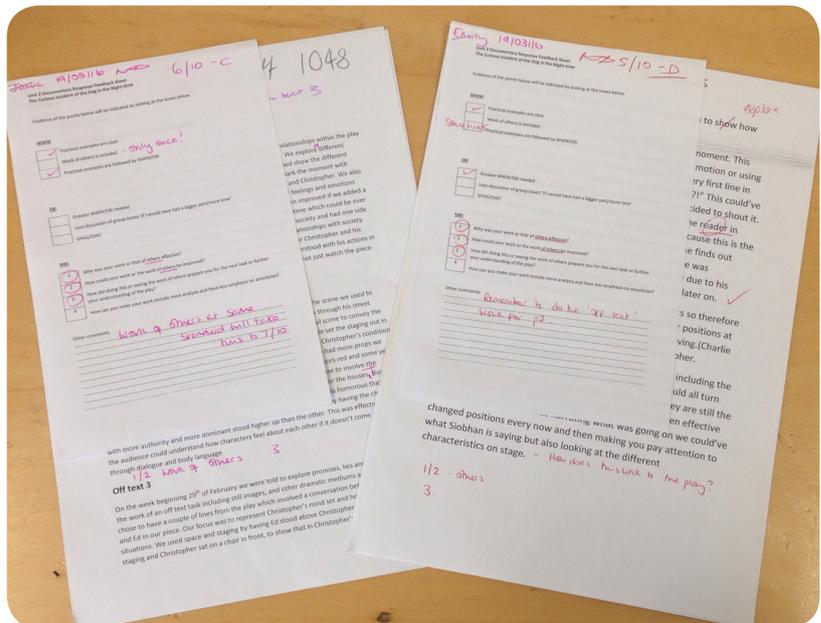
Students are now more independent in using the writing supports provided, as feedback was coded specifically to those, which made the process for a subjective subject formulaic.

IMPACT ON PEDAGOGY

Ensure that the process is revisited and that there are consistent approaches when tackling the same topic.

EMBEDDING IN DEPARTMENT

This approach will be taken into consideration when planning our SoL's for the new curriculum.



FURTHER RESEARCH:

This has worked well for our level 4 students, but it would be interesting to see how we can push our level 6+ students as the highest graded piece of work was an 8/10.

MEMBERS:

Nicola Kelly and Mark Gibbs (DRAMA)

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GLOSSARY

9-1 - the new GCSE grades

ACTION RESEARCH - A form of research that is cyclical, where each cycle informs the development of the research. The action is planned for, acted on and then reviewed

A LEVEL - Advanced Level qualification

ANTHECOLOGY - The study of pollination (See Foreward)

AO - Assessment Objective

AO3 - Analysis and synthesis type questions

BTEC - Business and Technology Education

COUNCIL - a qualification

CAME - Cognitive Acceleration Mathematics Education

DIRT - Directed Improvement & Response Time

DLS - Department Lesson Study

EBI - Even Better If - a statement which is used when giving students feedback

FLIP-IT - getting the students to prepare in advance of the lesson

FIX-IT - A period in the lesson when students respond to feedback

GCSE - General Certificate of Secondary Education qualification

HA - Higher Attaining

HOD - Head of Department

KS2 - Key Stage 2

KS4 - Key Stage 4

KS5 - Key Stage 5

LA - Lower Attaining

LOP - Level of Progress

MA - Mid-Attaining

MARKET PLACE - An event where members of staff share, display and discuss their Lesson Study research

MRI - My Response Is - a statement which is used when giving students feedback

NQT - Newly Qualified Teacher

PP - Pupil Premium

RAG - Red, Amber, Green - a coding system used to determine how well students understand

SEND - Special Educational Needs & Disabilities

SLT - Senior Leadership Team

SOL - Scheme of Learning

STAR - Strength, Target, Action, Remember, Response - a system used for MRI

SWA - Samuel Whitbread Academy

TRIAD - A group of three teachers working collaboratively

VAK - Visual Auditory Kinesthetic

WWW - What Went Well - a statement which is used when giving students feedback

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