



SCITT

Inside Barr Beacon



I am delighted to launch the first edition of the brand new, termly SCITT Magazine. The great thing about working with teachers on their journey towards becoming expert practitioners is that they have some inspirational ideas, strategies and approaches to Teaching and Learning. This magazine has been created with the aim of sharing these.

On the back of a very successful first year as a SCITT, this issue celebrates the achievement and work of our SCITT and ITT Alumni. In 2016-2017, 100% of our trainees were graded Good or Outstanding and 100% of these new teachers started their careers in their first appointment schools as Newly Qualified Teachers. We know that they made a real difference to the education and life chances of the children that they taught during their ITT year and we want to celebrate and share their future successes.

I would also like to wish all readers a very Merry Christmas and a Happy New Year. I hope that you enjoy reading this issue and don't forget to look out for future editions in the Spring Term of 2018.

Kevin Shilton | SCITT Director





It gives me great pleasure to welcome you to the first issue of our SCITT Magazine. It has been a great to work with the many talented and dedicated contributors to this magazine in producing a magazine which I hope you will find informative and directly applicable to your own classrooms. I would like to thank the contributors for their hard work and effort in assisting greatly with the production of this magazine. This magazine is about our SCITT Allumni and the impact that they are having in their roles following their training year.

This issue includes contributions from our NQT Alumni and some of our second and third year teachers. They have compiled their strategies on expert differentiation, teaching complex topics, data management and pre-planning for misconceptions; considered the research of what we say in the classroom; reflected on their experiences in their first term as a Newly Qualified Teacher; and demonstrated how extra-curricular activities can be made fun, relevant and educational.

I would like to take this opportunity to wish all readers a fabulous festive season and I hope that this magazine provides you with ideas and inspiration for the new year.

Micheal Eszrenyi | SCITT Course Manager

Ul. Eszreng

Whilst planning lessons I will spend some time thinking of common misconceptions that may arise with the methods that I am teaching. Once I have identified this I try to think of different ways to highlight these to ensure that the pupils can rectify these misconceptions if they arise.

One common way that I highlight these misconceptions is by making them myself in front of the class. I will do this once I have taught a full correct method. Once I have made the mistake one of the pupils will then point out that I have gone wrong, usually before I have finished my explanation. We will then spend some time discussing the misconception as a group.

Another technique that I use to highlight misconceptions is by using incorrect model answers. I will get the students to annotate the model answers to detail where the student has made a mistake. I will then leave a space underneath for the student to correctly answer the question.

One reason that I enjoy using these techniques is because it shows the pupils that it is OK to fail and get things wrong, as long as you learn from the mistakes that are made. This aims to promote a positive growth mind-set enabling the pupils to learn more effectively.

Both of these techniques are things that I learnt during my training year. I have then spent time over the previous two years refining the methods to make them more appropriate to the different groups that I teach.

Scott Finch trained with Barr Beacon School in Mathematics on the School Direct programme in 2015-2016 and is a second year teacher at Barr Beacon School.





There's no better feeling than walking around a classroom which is buzzing with learning and excitement especially when the teacher is doing minimum work and the pupils are stretching and challenging themselves. My favourite activity achieves this with a bit of differentiation and clever planning.

The activity goes by a lot of names. I originally got the idea from Isabella Wallace, co-writer of the bestseller "Pimp Your Lesson!" and I call it "Become The Expert" but she calls it the "Differentiator". Both names are apt; the pupils become an expert on a topic without realising and it is very easy to differentiate.

How does it work?

The activity works well with big topics. In this example I used the history of the development of the model of the atom. This can admittedly be quite a dry subject, but it is necessary knowledge for aspiring GCSE triple and dual award pupils and can be made interactive and engaging with this activity.

First, let's look at the preparation and planning for the activity:

- Get some resources together I normally book the school's set of iPads, but I have also used textbooks and printouts. This is where pupils will get the information from. I highlight good websites to use (for example, BBC Bitesize).
- 2. Write tasks that ensure that pupils get all the necessary information Using a mix of the specification, past paper questions, Bloom's taxonomy and my own professional judgement I write around 25 questions which will lead to the pupils getting all the information they need on the topic. However, I do double check that the resources allow pupils to get the required outcome (a mistake I made during my training year!)
- 3. Cut up the questions This bit requires some organisation. For my example topic I split the questions up into each of the 6 scientists to ease my guillotine-woes. Equally you can split each task up by individual questions.

That's it for preparation. When it comes to the lesson you need to explain the process in a logical order and outline any procedures you want. After that you can let the kids work away and generate all of the knowledge they need themselves!

What do the pupils do during the lesson?

- 1. Pupils get the first set of questions and must complete them using the resources.
- 2. When the pupils think they have finished they must ask a member of staff to check the answer. I give my LSA or Coach an answer sheet in advance and print-out one for the day too.
- 3. If the task hasn't been completed to the best of that pupil's ability, they are given simple feedback and they must improve before moving on.
- 4. If they have completed the task to a good standard, they get the next task. However, this is the clever bit; do they get the next question, or do they skip one? Do they get an extra question to everyone else? This is where the differentiation happens. It does require a good knowledge of your pupils, but I have been known to draw up a cheat sheet of pupils' names and what questions they should attempt.
- 5. The process repeats until they have completed the tasks you want them to.

I have done many different variations on this. There have been competitions for the quickest to complete all their questions, the best looking A3 sheet that answers all their questions, I have made a rule that at least 1 question must be answered using a textbook rather than the internet, I have added red herrings within the literature or print-out selection that doesn't help them for the Most Able, and I have even had different groups of pupils researching different topics and then have time at the end of the lesson to teach each other about their topic.

I'm getting to the point where my pupils know that when they see "Become the Expert" they need to get ready to answer a lot of questions and have a lot of fun.

What do example questions look like?

Each scientist was cut out and only the Most Able students were expected to complete Chadwick.

Democritus

- 1. What nationality was Democritus?
- 2. When was he alive?
- 3. What did he propose that mater could not do?
- 4. What did call the small particles?

John Dalton

- 5. Where was John Dalton from?
- 7. Draw the model Dalton proposed.
- 8. What was the 4 statements John Dalton proposed?

J.J. Thomson

- 9. What did Thomson discover and when?
- 10. What was the name of Thomson's model?
- 11. Sketch a diagram of J.J. Thomson's model.

Ernest Rutherford

- 12. What did Rutherford discover in 1911?
- 13. What charge did the particle that Rutherford discover have?
- 14. What did he call the centre of atoms?
- 15. Sketch the structure of Rutherford's model.
- 16. What was the name Rutherford's famous experiment?
- 6. What year did he come up with his atomic theory? 17. What happened in Rutherford's experiment to make him develop his model of the atom?

Niels Bohr

- 18. In what year did Niels Bohr propose his model?
- 19. Whose model did Bohr improve upon?
- 20. What concept did Bohr introduce?
- 21. Draw Bohr's model of the atom.

James Chadwick

- 22. What particle did Chadwick discover and in what year?
- 23. Who did Chadwick work with during his discovery?
- 24. What charge did the particle Chadwick discovered
- 25. Where did Chadwick propose the neutrons would be found?

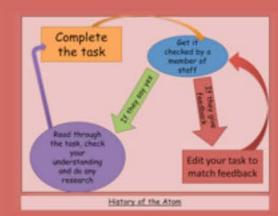
How might you introduce this to the pupils?

After explaining it a few times previously, this slide means that my Year 10 pupils were able to understand the task with minimal explaining. In the initial lessons I created the flow diagram to help pupils follow the task.

Martyn Curzey trained with Barr Beacon SCITT in 2016-2017 and is an NQT in Science.









The use of negative imperatives require more cognitive processing, but in a different way than we expected.

During my childhood, quite often I heard my father saying that the use of negative imperatives ("not", "don't") was useless. He would then explain that people would automatically negate the negative, therefore doing exactly what they shouldn't. Is that still the case with our pupils?

Negative phrases seem to require more cognitive processing than positive ones, taking longer for us to understand and act according to the information we have received. The classical view of this situation is that whenever we receive negative information, we first process the positive part then apply the negation¹.

However, this paradigm has shifted in recent years ²⁻⁴. What researchers are now theorising is that whenever we receive a negative sentence, first we assess what kind of question is intrinsic to the sentence using what has been labelled a "Question Under Discussion". For example, if a teacher tells a pupil "Don't hold the beaker" (I am a science teacher after all), the pupil will first address the question "What should I do with the beaker?", which is a positive question. Next, the pupil will compare the answer of his question to the teacher's question, realise that there is some incongruence (positive question versus negative question), then assess the right answer. This whole process contributes to the difficulty of negative sentence processing⁵.

Little physiological research has been carried out in this area, however some studies involving functional magnetic resonance imaging (fMRI), negation and action verbs give hints that the interpretation of negative sentences reduces the activation of regions responsible for motor processing 6–8. They, together with another work using electromyography technique (EMG)⁹, suggest that negative sentences require a higher level of interpretation rather than a simple contradiction of positive information.

So, if you need to tell your pupils something that requires a quick response, negative imperatives might not be the best way. On the other hand, if you are keen to start a discussion, then using a negative or contradictory sentence could perhaps boost their brain activity enough to incite the conversation.

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Rodrigo Bammann trained with Barr Beacon SCITT as part of the Researchers in School programme in 2016-2017 and is an NQT in Science. Read more of Rodrigo's blog at: https://theneuromancersivy.wordpress.com/

Friday night, free pizza, movies and friends. Sounds a good way to spend a Friday night! That is why the Modern Foreign Languages department in Etone College has opened up a cinema club for all years to enjoy a foreign movie with English subtitles once a month with free pizza!

Why watch a foreign movie? Here are three reasons why it's so important to watch foreign films:

- 1. It pushes students out of their comfort zone.
- 2. It shows students a different view of the world.
- 3. It awakens students' imagination.

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When students view cultures through foreign films, they more naturally relate to the wider world and are transported into different cultures. It also provides a great opportunity to improve literacy and vocabulary through English subtitles.

Carlota Larrosa trained with Barr Beacon SCITT in 2016-2017 and is an NQT in Modern Foreign Languages.



Dr Luke HughesDame Elizabeth Cadbury

In this blog Luke reflects on the beginning of his NQT year.

Warming up - the first couple of weeks.

If you're reading this as an experienced teacher, you may or may not remember the shock that comes with not having somebody at the back of the classroom watching you! For the first few days, it was actually a little bit scary. I'm pretty sure I'd forgotten how to teach after spending 6 weeks in south east asia! However, most of the students had appeared to have forgotten everything about school life too, so you're in this together with them. Pressure starts to come at you in different ways in comparison to being a trainee. For starters, I look after a form group part time with another colleague. This has been great fun, but also, given that they're year 7, I have to spend 20 minutes dealing with an inordinate amount of irrelevant questions most mornings, and 10 minutes in the afternoon. (The students are lovely, but the pressure is on you to know your stuff about the school!) I also have a few more duties for the week, as well as a few more lessons to teach. The constraints on my time don't feel too bad just yet, as generally speaking, my first few lessons involve introducing myself, students getting their new books sorted and me delivering some nicely planned lessons. This is all done with great behaviour as the students try to figure out what I'm like and where my boundaries are. So, the first few weeks is an enlightening honeymoon period where I started to find my feet again. Nice.

Pushing the boundaries - Weeks 2-4.

I started to realise it's all down to me. The progress that students are making in science is due to what I'm teaching them. At about the end of week 3, I had given out the first end of topic tests and marked them. Shocking. Why is it that some of them have done really well, and others, not? Time to get a bit of a data/marking head on and look at why some of the mistakes have happened. My Head of Department has demonstrated a marking log. With that, and another few bits on the twittersphere, I've identified some key areas that most students struggle with and did a feedback lesson focusing on how to answer 6 mark questions. I've also noted that I should include a few more of these within my lessons. Here is a key point. As a Newly Qualified Teacher (NQT) - use your Head of Department (HOD) and other staff. They've seen it all before. Consider what you've done, reflect and adapt your approach. This smashes TS 1.6 out of the park. In addition, the students saw that they were given support and seemed to enjoy improving their marks. Winner! Testing and feeding back to students is something I did in my trainee year. However, now I feel more responsibility for their progress and the pressure for them to perform is higher.

The next thing to mention is that behaviour issues start to rear their heads. Now, I thought my behaviour management was quite good. To be honest, I don't think it's bad. However, I've realised that setting the record straight and giving out those early detentions is a must. If you don't, students will start to complain that so and so didn't get a detention etc. It's a difficult one, but I do my best to follow the schools behaviour policy as well as possible. One thing that happens at my school is that Senior Leadership Team (SLT) are constantly doing learning walks. At first, I felt a little intimidated by these. However, it's clear that the walks ensure good behaviour as well as helping with my teaching. What SLT do in my school is extremely supportive. There are some great tips I've picked up from the head teacher and others. Remember that as an NQT - whilst SLT expect you to be trying your best, they will remember and know that not every lesson will go as planned, there will be behaviour issues and that you're starting to get a bit tired now! There is always room to improve. At times it can be great, others frustrating. Be resilient. Use your support network.

In addition to support from SLT and HoD, I have an NQT mentor. We meet every week and discuss how I'm getting on and areas for improvement. My mentor tries to come to see me once per week in a defined lesson with defined focus. This helps with building my NQT portfolio (a statutory requirement) and best to do earlier on if possible! As normal, I don't try to do anything out of the ordinary for the lessons, but maybe a couple of tweeks to improve a given area.

Breaking down walls - Weeks 4-6!

I couldn't think of a better way to phrase the last 2 weeks. Its getting to the time of the term where you're getting a bit tired. Not only you, but the students are too. For this reason, behaviour can become even more challenging. Be strict, stick to your guns. Have simple, effective strategies for discipline. This has been wonderfully modelled by my head teacher in my most difficult group. However, I've realised that my lesson planning has become quite a bit quicker. I'm back in the routines I have for planning. In addition, I'm developing my own different ways of doing things in the classroom. One of the options available in my school is to go on your own little learning walks and watch other teachers. I've used a lot of this to take little hints and tips for classroom management. My advice here is to do the same. You'll be amazed at some activities and ideas you can pick up. I've also adapted a model for teaching in science. This basically involves me chunking down lessons by asking loads of questions using an Ishikawa style diagram - I'll write about this soon. This also means just using a whiteboard pen in lessons which is terrific! But essentially, I feel like I'm making progress as a practitioner. The classroom environment is good, students know what is expected of them and they have also done better on their most recent tests! Not going to lie, I'm suffering with a sore throat and can feel the strain of the workload. I'm looking forward to half term.

To sum up then: don't be scared to start with - try to remember your training. Have the highest expectations of behaviour, attitude to learning and good planning (you've done this all of last year). Use everyone around you - HoD, other teachers, SLT and Headteacher! They want to help. Watch other teachers and don't be scared to change your routines. Keep going - it can be a struggle at times, but half term is around the corner. You're not quite there...yet

Luke Hughes trained with Barr Beacon SCITT as part of the Researchers in School programme in 2016-2017 and is an NQT in Science.

Read more of Luke's blog at: https://lukehughes88.wixsite.com/mysite/home/author/Luke-Hughes

Teaching Complex Concepts

Charlotte Pagett Bloxwich Academy

When teaching complex scientific concepts such as the endocrine system in Psychology, I have found that applying it to the students and giving them an active role in their learning allows them to understand it much better. For this lesson, I simply gave students diagram labelling activity, consolidated answers and then gave them time to decorate their bodysuits whilst giving them set criteria. This consisted of clear, differentiated instructions for success such as name the endocrine gland, name the hormone it secretes and explain the impact this has on the body.

The students were thoroughly engaged with the lesson and as a result of their active engagement in this topic are now very confident in this area. The students were also proud of their work as they ensured their amazing outcomes were seen by Mr Seager (Headteacher of Bloxwich Academy) by heading over to the field and showing him their work.

Charlotte Pagett trained with Barr Beacon SCITT in 2016-2017 and is an NQT in Psychology.



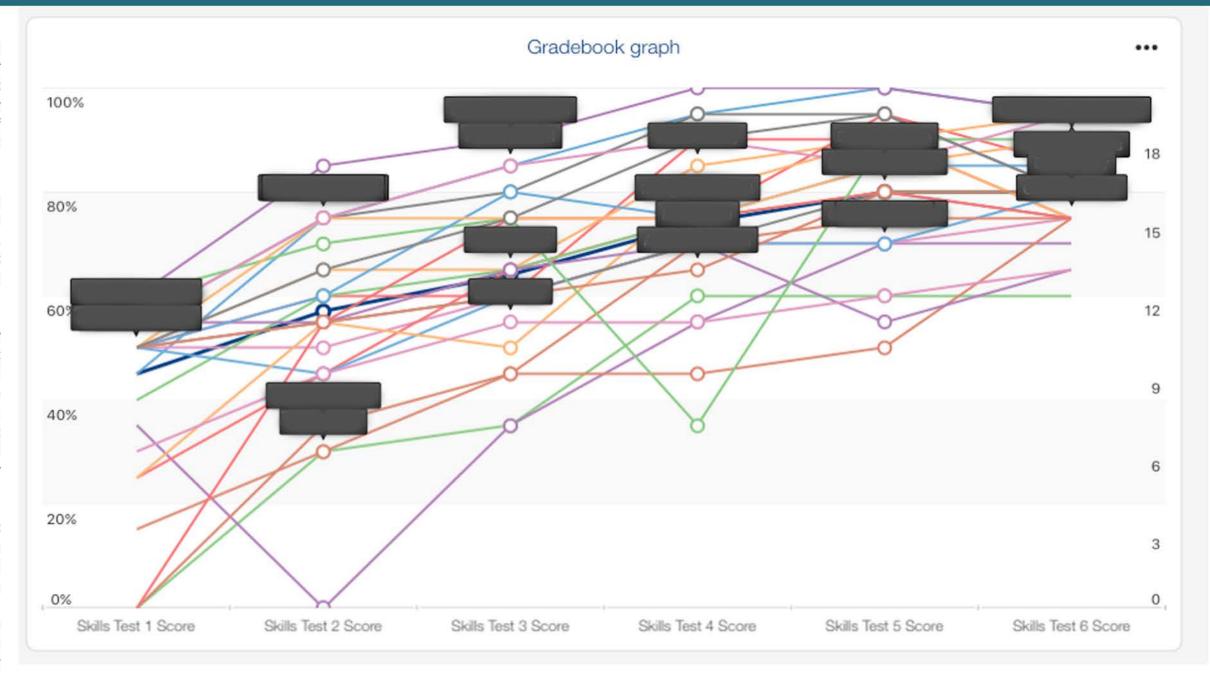
Although I am now settled into my third year as a qualified teacher, I continue to strive towards smarter and more efficient ways to do my job well. One element of teaching that seems to have become increasingly more important to me is the recording and usage of pupil data and since my NQT year I have been using an app to do this job for me.

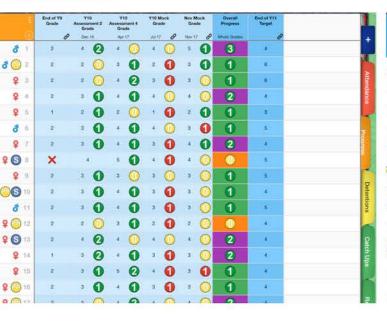
Apps like iDoceo makes it easy to track, compare and analyse data from assessments and homework and the data is presented in clear way for me and any observers. It can calculate average scores, grade a pupil's effort and track the progress that each pupil is making in a really straight forward way.

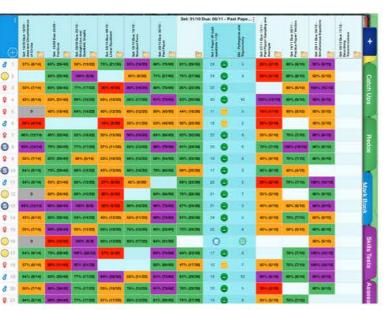
In addition to this, it can save a lot of time and stay organised when tracking interventions which makes it easy for me to measure their impact, this is a great tool to use with progress evenings and saves a lot of time when completing pupil information requests. Finally, I am able to plan effectively because of the colour coding tool that helps me to quickly identify topics that need to be focused on during revision, for the whole group or for individual pupils.

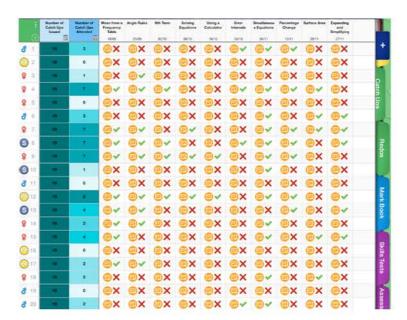
Without this sounding too much like an advertisement for the app, I can't recommend it enough. It saves me so much time and as I continue to use it I find more useful features that allow me to use a display data effectively.

Sharna Poynton trained with Barr Beacon School in Mathematics on the School Direct programme in 2014-2015 and is a third year teacher at Barr Beacon School.













On Thursday 29th June 2017 Barr Beacon SCITT hosted a celebration event to recognise the successes and achievements of the 2016-2017 SCITT cohort. The trainees and their guests celebrated in style and enjoyed canapés on arrival. The Chief Executive Officer of the Matrix Academy Trust, Dame Maureen Brennan, opened the celebrations, our guest speaker.

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Professor Carl Chinn, gave a motivational speech on education and all Headteachers of partner schools attended to present their trainees with certificates of achievement. Subject Course Leaders and SCITT Leaders were also on hand to congratulate the trainees on their achievements. The day marked the hard work, dedication and determination that the trainees have put in to their training in order to ensure the best outcomes for their pupils and celebrated their recommendation to the National College of Teaching and Leadership for Qualified Teacher Status.

We are incredibly proud of the achievements of our SCITT trainees and would like to wish them continued success in their roles as Newly Qualified Teachers.















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