

Researching the learning: what, how and why am I teaching? (Do model answers improve exam responses for lower ability students?)

	Targed/Target	Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn. What I have done in this assignment.
Targed/Target 1	Proofread to ensure written accuracy and to avoid making simple errors.	I have proofread the essay.
Targed/Target 2	Revisit the protocols for accurate referencing using the Harvard system.	I have revisited the referencing using Harvard guidance.
Targed/Target 3	Ensure that you have a secure understanding of the claims being made in the literature that you cite. Consider the limitations of their lines of argument and how they would apply in your context.	I have made sure misconceptions have not been made.

Aim, focus and purpose of research

The issue that I took a concerned interest into, was the way in which schools and teachers prepare pupils for their exams. This has made me question the strategies that are being used and the outcomes of those strategies. I found that model answers could work better to help pupils who aren't achieving. This struck me as in my school they strongly support the model answers technique. However, this only seems to be used in Maths, English and Science only. This is something I saw potential in for my Year 12 Media class. This is only a small class of 6 which most are of a lower ability. My class have to sit exams based on the context of analysing but this is worrying, as I am yet to see their capability of writing a critical analysis. I discussed this with my research partner which triggered the same response for her mixed ability Year 9 Religious Studies class. As both of our classes had lower ability students, we decided to base our research on lower ability students. We both took an interest into how students respond to exam questions without guidance. We then discussed further and raised how students respond with guidance, such as scaffolding and model answers. From this discussion, we created our research question which is 'Do model answers improve exam responses for lower ability students?'. We will be investigating into how model answers can improve grades and attitude towards exams. We will be looking at how students react to seeing a model answer and seeing if using model answers as a scaffold for students enables them to identify the problems in their own work. This will also focus on how model answers could improve confidence when answering exam questions relating to creating healthy, confident individuals (Donalson,2015).

Overview of relevant literature

I looked further into my research question by reading books, journal articles, government documentations and other online material. This showed me that my question is realistic and could spiral down many strong routes such as self- assessment, strategy development, scaffolding, how to improve exam results and many more.

Estrada (2015) states, if a pupil doesn't learn by the strategies taught, then we should develop our strategies to help them understand. This is something I aspire to achieve throughout this research process. As the purpose and aim of this project is to see how scaffolding and model answers help students improve their exam responses, which is about supporting and developing learning.

Through researching, I have found many relations between my research study and other research studies. In particular, Hattie (2012) talks about 'visible learning' which is teachers clearly seeing the impact their teaching is having on the student's understanding as well as identifying the key aspects that are clearly showing an improvement in the students learning. Hattie (2012) also asserts teaching needs to be 'visible' to the learners to ensure that they can take on and understand the role of a teacher, which leads to them to being their own teachers. Hattie (2012) believes this is essential to a lifetime of future learning. Donaldson (2015) supports this as he promotes students being independent learners, which is in relation to one of his four core purposes 'ambitious, capable learners' (Donaldson, 2015). This continues to talk about self- assessment which is all about being your own teacher. Self- assessment would be another essential part to our research investigation. In particular, Sadler (1989) argues that students have to be able evaluate their own learning to ensure beneficial impact. Bruce (2001) supports this argument as he states from self-assessment,

students can identify what they understand and what they still need to understand. This is positively getting students to acknowledge their strengths and weaknesses in order for them to improve. Hattie and Timperley (2007) also support this as they state self-assessment is the greatest form of feedback because it gives the student the opportunity to be in control and build confidence in their ability to achieve. This is something which helped to define our study, as we wanted to see if there is a change in confidence when the students receive the model answer and scaffolding support.

This led me to question the existing benefits of scaffolding students. Scaffolding is known to be a positive reinforcement boost when learning. This is linked through Vygotsky's notion of the zone of proximal development. This is a range of tasks between what the student can achieve by themselves and what they can achieve with support (Vygotsky, 1978).

Donaldson (2015) states that all teachers should be scaffolding learning so students are able to learn and apply knowledge by themselves. However, Reiser (2002) argues that scaffolding should challenge students more and make task harder to achieve. This explains that if we scaffold students too much, they would get used to achieving simple tasks with support. This suggests we should only scaffold to challenge. In away Rose (2003) supports this as he discovered 'teaching reading' to lower ability students, where he based his method on scaffolding. Rose (2003) believed from his research, supporting lower ability students to practise at a higher level they could achieve on their own was most effective. Finding this reinforced us that our question aimed at lower ability was suitable and could be very effective instead of aiming at mixed ability.

This further research supported our research question. This made us look deeper into our question and helped us to define our lesson study. From looking at the outcomes of scaffolding we decided to not just use a model answer but also other scaffolds such as word banks and checklists. I continued to further my research into the effects of model answers. Frost (2016) suggests model answers can be an effective method, but only to fix simple corrections. Pollman (2014) raised the issue of weaker and stronger model examples which made me question which I would use in my lesson study. Pollman (2014) asserts lower ability work better from weaker models and the more able work better from stronger examples. Huxham (2007) argues, model answers that include the guidance to full marks are more ideal. Huxham (2007) also states model answers are easy, simply and effective but there is a risk of students not receiving personal identified strengths or weaknesses.

Explanation of lesson study design

The methodology used is lesson study research, which is a form of action research. Lesson study is when two or more teachers work collaboratively together enabling them to improve learning and teaching practice. The research is conducted in a classroom setting based upon a certain aspect of learning which has arose, which is stopping students from progressing further in their learning. Teachers are then able to investigate their findings and share the results with others (Dudley, 2011). I am using lesson study as there are many advantages to action research. I've chosen to use action research because Koshy (2010) suggests that some advantages are achieving unrestricted results and new theories can arise as you are conducting research. It is also under constant assessment which allows for any adjustments needed later on in the study can be made.

The methods of data collection used are: reflection, non participant observation and focus group. A process also used throughout this research study is triangulation. This is evidence gathered from different sources such as conversations, observations, interviews, documents

etc. These would all be based on the same topic (Denzin, 1973). This enables the researcher to gather a variety of data collection which could be more reliable (Carvalho and White, 1997). This is something which takes place whilst pupils take part in individual work in a classroom environment. This can also be done in group or paired work but for the process of this research study it will be based on individual.

When conducting this research, the observation strategy used was a non-participant observation. This enabled the non-participant observer to see and experience what goes on through their own eyes, which enables them to see the students body language and the classroom atmosphere towards what was being presented. This is a strategy where the observer doesn't interact or have any input. This enables the observer to simply watch, record and gather necessary notes which would be appropriate and beneficial for the investigation (Cohen et al, 2011). Geoff Payne & Judy Payne (2004) state the benefit of using this could decrease the chances of the Hawthorne effect, so by using this strategy it could possibly erase inaccurate results which would provide more real and sensible results. When I was teaching the lesson and presenting model answers to my class, my research partner took observational notes using separate observation schedules (Appendices 2,3&4) for each of the three chosen pupils. The three participants involved in the focus group were chosen as a sample based on our research question. This was because of their lower ability within the class. The pupils were observed based on levels one to five looking at their attitude towards the lesson and work that had been produced. This was analysed before and after the model answer was provided.

The interview set in place was semi structured with seven questions (Appendices 5) and conducted with the 3 key study pupils that were previously observed throughout the research process. They were all interviewed to discover how they felt about model answers and if they were helpful. This then allowed me and my partner to measure the impact it had on their confidence and attitude towards exam responses as well as if it had improved their work. The students were first asked to discuss the lesson in the group of three. Following the discussion, they were then asked individually a few questions based on the lesson. The reason for individuality was to try and prevent pupils giving the same responses by copying what the other participant said. The interviews were captured using an audio recording and were later transcribed into written notes. Koshy (2010) suggests using an interview process can be time-consuming rather than using other methods. However, this is contradicted as Koshy (2010) states group interviews are more useful for a classroom setting and are less time-consuming.

The importance of reflection is critical to this lesson study research. Moon (2002) states reflection will determine the key positives and negatives of the research question. The reflection took place by communicating with my research partner, discussing our findings and feelings about the research process. We have used the framework suggested by Gibbs (1988) reflective practice model which is a 6 step process e.g. description, feelings, evaluation, analysis, conclusion, action plan (Appendices 7). This is something I felt that would help to explore my findings in more depth to be able to get the best possible outcome. Gillett, Hammond and Martala (2009) asserts that reflection is based upon experiencing something, thinking about it and then learning from it. This was what I aimed to achieve from this project. From my findings, I am hoping to share my findings with others to improve overall teaching practice.

Ethical Considerations

When carrying out research, ethical considerations are put in place to ensure the essential guidelines of action are taken (McLeod, 2015). Firstly, before research is undertaken, all participants are required to understand the aims, purpose and outcomes of the research. Students will be further reminded before the lesson takes place. It is compulsory for all participants involved to have completed informed consent forms by parents/guardians (Appendices 1), as well as the pupils' assent of involvement. Secondly, students may feel pressured to participate, for this students will be informed participation is voluntary and they will be made aware that they can withdraw at any point. As three students will be selected to participate in an audio recorded interview after the lesson, confidentiality must be in place. The participants will be reminded that the recording of the interview is audio only and will be securely stored on a USB only for the researchers' use. They will be reminded all data will be anonymised and that no pupil will be able to be identified from the research. Throughout the research process, ethical guidelines set by BERA (2018) and UWTSD Research Ethics and Integrity Code of Practice (2019) were followed.

Lesson Study Y results and analysis

This lesson was conducted to the suitability of our research question 'Do model answers improve exam responses for lower ability students?'. This lesson was conducted in a Media Studies lesson which focused on critical analysis of a music video. Firstly, we had to see the outcome of responses to exam question without the use of scaffolding or model answers in order to compare and determine the better result. The students had been provided with the task, answering an exam question using only their analysed notes which they would only have when taking the exam. Whilst they completed this task the observer filled out an observation schedule on all three students that were picked prior to this lesson. They were observed based on their levels of work ethic and attitude towards the task (Please see appendices 2, 3 & 4 for level guidance). Students were then given guidance in order to improve their written analysis. They were provided with scaffolding such as a checklist, word bank (Appendices 8) and a model answer. The students were observed again based on their work ethic and attitude towards the task. After the lesson was completed, the three observed students were then interviewed based on the lesson.

In the first task, student one (Appendices 2) was observed attempting the task but with an indication that the student didn't feel at ease. When the scaffolding and model answer were given the change in work produced was full of depth and knowledge. The student didn't show any signs of being uncomfortable as they just displayed a neutral body position. The student had improved from a before grade of a pass to an after grade of a merit.

Student two (Appendices 3) in the first task, attempted the question and proved to add key concepts but lacked structure and depth. The student had neutral posture and facial expression, so this didn't show any clear feelings or thoughts about the task throughout. However, in the second task the student showed clear signs of confidence in facial expressions and expressed relaxed body language. This also proved to be shown in the student's work as it was to an excellent standard. This student had a before grade of a pass and after achieved a target grade merit but with an extra push, a possible distinction. This

student had shown to improve in work ethic, attitude and grades. (See appendices 9 student work)

Student three (Appendices 4) was identified as showing signs of anxiety and withdrawal. Body language was enclosed and the student kept looking at other student work. This was also clear when words were verbally stated by the student. Although the student was stressed they attempted the task with key concepts but lacked structure, depth and length. Once the student had been provided with the guidance for the second task, they showed a great deal of confidence through body language and verbally saying that it was much easier now and that they knew what they had to do. This confidence proved to be realistic as the work produced demonstrated much more depth and knowledge. The before grade was marked at a pass. However, the after grade was a merit.

The second part of the research was an interview with the three selected student. The interview was based on seven questions about the lesson they had just experienced. The students were first asked to discuss their feeling about the lesson. All participants had a positive feeling about the lesson as they are worried about upcoming exams. All students admitted that they were nervous and worried for the exams but after the lesson, they all feel at little more at ease. Student three stated "Still a little nervous but today's lesson showed me I could do it" whilst the other students agreed. They all concluded that they felt more comfortable with the second task as they had the scaffolding to help. Student two showed signs of negativity toward the first task. They stated "the first one I was just blabbering" but the student agreed with student 1 with being more comfortable with the second task. The students expressed that they liked model answers as they helped and they would want to use them again. Student three stated "We have only used them in English and Maths before but it helps in this lesson more" which is very interesting to discover. This is something worth sharing with the school and others. Student two expressed that sentence starters would be another helpful strategy but student three just felt more lessons to prepare for exams were necessary. Student one also agreed and wanted more model answers and examples. At the end of the interview the students came to conclude that if there was more time they would like to go through the model answer as a class. (See appendices 6 for interview responses)

Looking at the results of the three students has proven to show, model answers and scaffolding has had a positive effect on their learning. This is shown through the increased results of student's work ethic, attitude and grades towards the tasks. From the interview responses it also shows that students feel more comfortable with the extra support and feel it helps them prepare for their upcoming exams.

After evaluating this lesson there are a few areas which could be improved. From listening to the interview of student's response I found the lesson was too short for the experiment. This would have been more ideal to be done over the course of two lessons. This way the students would of had more time to complete the tasks and also spend time going through the model answer together as a class. This was one of the students requests but the student understood as there wasn't enough time it wasn't ideal. It was also suggested by student two that sentence starters could be a possible strategy.

Lesson Study X results and analysis

The second lesson study was focused the same as the last. It was based on observing the selected students and looking at the levels of their work ethic and attitude when completing a task without help and then the task with guidance. In this lesson study the main focus was model answers with no extra scaffolding. This is place in a Religious Studies lesson.

For the first task, student one (Appendices 12) made no effort to answer the question. The student showed signs of anxiety and withdrawal by their body language which displayed signals of stress. Also, the student verbally expressed frustration through sighing and complaining. The student was then observed a second time provided with scaffolding and a model answer. This time round the student had shown no signs of distress when completing the task and seemed to react very positively towards the task. The student produced a good piece of work but lacked depth of knowledge. The first piece of work was grade as a U. However, after the guidance was provided the student achieved a D. On the other hand, this student appeared to copy the model answer word for word. This is something that will be addressed further.

Student two (Appendices 10) was observed to make little effort to deliver a response to an answer and had minimum understanding of what is expected of them. On the other hand, the student had no emotion and refrained from their expressing emotional state. The student was then observed a second time throughout the task provided with scaffolding and a model answer. The student was seen to make a much stronger attempt at the answer this time around. The student was also able to demonstrate knowledge in depth and apply that knowledge to the question. The attitude of the student changed and the observer was able to see a more positive and confident body language and facial expression. This student also showed confidence by wanting to read out their answer to the class. The work produced in the first task was marked at a D. However, after the scaffolding and the model answer was given the student achieved a target graded C.

Student three (Appendices 11) seemed to have low quality writing but a good amount of work produced. It was clear through body language and facial expression the student wasn't at ease with the task. The student was then observed a second time provided with guidance. The student lit up this time around. The student showed a positive enthusiasm towards the task which was shown through body language, facial expression and verbally. The work produced was at a much higher standard. The first task the student was marked at a D. However, after the guidance was provided the student achieved a target graded C.

The second part of the research was an interview with the three selected student. The interview was based on seven questions about the lesson they had just experienced. The pupils were first asked to discuss their feeling about the lesson. Student three was the only one to respond. Student three was able to confidently explain what they had learnt and that they had learnt a lot. The other two student stayed quiet. However, when they were asked about their feelings towards upcoming exams student one and two jumped at the the opportunity to respond. Student one state they were "not confident" and student two stated they were "nervous". Student two felt more comfortable with the second task as it had the WAGOLL to help. Student one and three agreed with this by nodding their heads. All three students agreed that model answers helped to boost their confidence and understand what

they had to do. They all felt the first task without the scaffold was confusing. Student three and one raised that they would like to have more support so they know they are on the right track. This lesson was only provided with a model answer. This has discovered that they would prefer extra scaffolding to help them too. (See appendices 14 for interview responses)

From looking our findings from this lesson I felt there were a few improvements to be made. In this lesson, students were only provided with a model answer. Students stated that they would like extra scaffolding help. Next time there would be model answers as well as scaffolds to help the students further. Throughout this second lesson study we came across an issue we had not considered. Student one had copied the model answer word for word which could give the student false pretences. This could be improved by advising all students that it is just something for support and not to copy it.

Discussion of research findings

From my findings I have been able to see that if a pupil doesn't learn by the strategies taught then, we should develop our strategies to help them understand (Estrada, 2015). This was shown to be needed as in the interviews the students were able to express how they learn and by adapting to this, it supports and develops their learning.

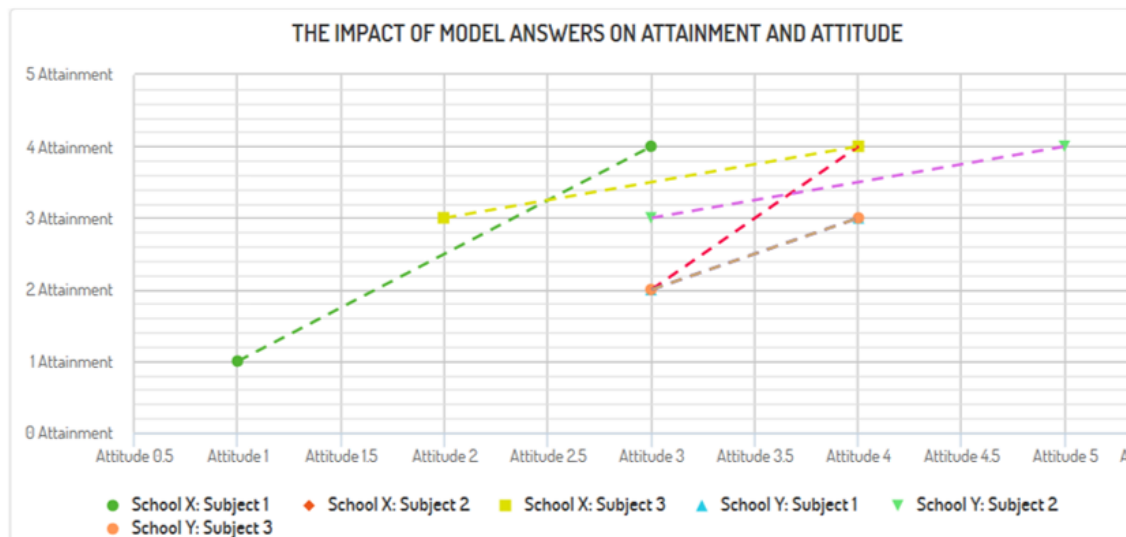
I am able to support Hattie (2012) when he talks about 'visible learning'. I have been able to visibly see the positive impact of model answers and scaffolding had on the students by seeing the change in work ethic, attitude and grades.

Relating to 'ambitious, capable learners' (Donaldson, 2015) I believe this has been shown through students independently using the model answers and scaffolds to redraft their critical analysis in order to improve. Giving the student the chance to improve proved to build their confidence as in interview Y student three stated that the lesson proved they "could do it". This leads me on to discuss how model answers encourage self-assessment.

Hattie and Timperley (2007) literature proves to be true as they believed self-assessment gave students the opportunity to be in control and build confidence in their ability to achieve. My research findings found self-assessment was an effective way of feedback in order for the student to redraft and improve their answer. When students were redrafting their answers confidence was shown to grow through body language, facial expression and verbal. The issue Huxham (2007) raised about the risk of student not receiving personal feedback was easily solved. The student books at the end of the lesson and marking them with grades and personal feedback. In lesson study X student two states "It can't be really easy because we won't really learn anything without challenge" this links to the literature raised by Reiser (2002) that scaffolding should challenge students more and make task harder to achieve.

In my previous research Pollman (2014) stated that lower ability work from lower ability models. On the other hand, Huxham (2007) argued, model answers that include the guidance to full marks are more ideal. From this I decided to use a full mark model answer which worked really well as pupils could identify what they were missing instead of wasting time finding the errors. I believe Huxham (2007) literature was true. However, Pollman (2014) could be true if I had a sample of mixed ability but in this case they were proven to be wrong. From using model answers and scaffolding students were able to redraft and improve their critical analysis. This could mean Frost's (2016) research about the method is only to fixing simple corrections is false.

From this research I have found all student to improve on work ethic and attitude towards the task after being given a model answer and scaffolds. This is all shown in the graph below.



Conclusion

I can conclude this research study as being a positive outcome. I have been able to research into my question in depth and answer all other questions raised. I have been able to see the great impact my research has made from my reflections, observations, student work and interview of student's thoughts and feelings. I feel the most important evidence from this research was the student responses. All pupils responded to model answers and scaffolding confidently and all improve by at least one grade after using them. I have come to conclude that model answers may be more beneficial to the holistic development of children in relation 'ambitious capable learners'

Although my findings have come out to be very positive, I am not sure there is enough evidence basing the study on 2 lessons and 6 students. I feel this would have been more reliable having based this on more students and more classes, as I feel the more evidence the stronger and more reliable the out come will be. I identified that the length of the lesson was too short to gather efficient evidence. Time restricted the students to redraft their answers, to their highest capability therefore, this wasn't completely reliable. A fault I also found which wasn't considered before had was a student copying the model answer word for word and being praised for it. This gave the student false pretences and wasn't reliable evidence. Next time to ensure this doesn't happen student will be warned about plagiarism.

If I were to continue this research in the future, I would start to look at if models answer support MAT students in the same way or if they limit their academic creativity. I would be looking at what is required for different abilities and comparing them. Throughout my career I will be supporting model answers not only on paper but modelling bad, good and excellent physically. This is beneficial for my subject area which is Drama.

Overall this has positively impacted my professionalism and made me a confident researcher. As a teacher I will be required to research good practice in order developing effective learning.

Recommendations

This research project has helped me open many doors to many questions. this has helped me to understand and recognise what I need to change in order to get more reliable and efficient results. This will no help me forward to research into the same topic but based on different class sizes, key stages and abilities.

If I was to complete this study again I would expand the research over a longer period of time as I felt two lessons wasn't enough to allow for reliable results. I would also focus on, investigating different abilities and then look to compare the results to this research study in the future. I feel it would be a great interest to see the difference in responses between lower ability and more able and talented students.

From what I have found out, I would recommend model answers and scaffolding within teaching practice, especially preparing for exams. This has proven to boost the student confidence, enable them to work independently, self-assess and learn from their own weaknesses.

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