

| Targets from previous assignment                                                     | What have I done to improve on this?                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Avoid alternating between abbreviations and full terms for a more academic style. | Abbreviating some terms in the previous assignment was a method to lower the word count to meet the requirements. This led to my assignment lacking a consistent academic tone. Throughout this assignment I have used full terms and focused on enhancing my scholarly language. |
| 2. Check written work for clarity in some sentences.                                 | Furthermore, the lack of clarity in some sentences resulted from trying to fit within the required word count and a lack of proof reading. For this assignment, I have attempted to be more precise in my explanations and proof read numerous times.                             |



**Prifysgol Cymru**  
Y Drindod Dewi Sant  
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*Design, conduct and critically evaluate a close-to-practice research project (lesson study) focusing on the model of the transformative teacher in developing practice that has a positive impact on the learner.*

## **Do model answers improve exam responses for lower ability students?**

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## Introduction

The purpose of this research is to influence the practice of the transformative teacher, resulting in positive educational change for learners. The focus of this paper will be to investigate the impact model answers have on the quality of exam responses, along with attitude in completing exam style questions for lower attaining learners. Essentially, the research conducted will be evaluating the benefits of model answers in the classroom. Providing example material is not always viewed as favourable by academics, with questions arising on whether modelling can be taught and learnt (Blum, 2011). However, this research focuses on learners who usually experience difficulty in reaching their full potential. Hattie (2009) alludes that providing exemplar material that demonstrates expectations is an element of direct teaching and the most effective teachers scaffolds learners consistently in order to meet their full potential, which is crucial during key stage 4 and key stage 5 years. Furthermore, conditioning students to feel relaxed when faced with an exam style question will improve confidence, thus, meeting one of the four purposes of the new curriculum: developing healthy, confident individuals (Donaldson, 2015).

To contextualise the scene in which the research project commenced, a brief description of the setting is necessary. In line with the BERA guidelines which state that the criterion for research is anonymity (2018:21), the school will be referred to as 'school X', with my research partners school being referred to as 'school Y'. School X is a 11-18 English-medium secondary institute, situated in a relatively affluent area of Cardiff. Throughout all departments, model answers are frequently used to demonstrate high expectations as well as to encourage learners to identify areas for improvement. This was discussed with my research partner who declared that school Y incorporate model answers but not as regularly. School Y is an all-girls school located in the Caerphilly Borough County. Together we hypothesised that model answers improve attainment and attitude towards exam responses for lower ability learners. Throughout my teaching experience, I have scaffolded learners using model answers on numerous occasions in an attempt to elevate their confidence and maximise potential. This lesson study is an opportunity to formally research the impact model answers have on learners to enhance understanding on what signifies good pedagogy.

## Literature Review

Donaldson (2015) has highlighted that education in Wales should encourage the growth of ambitious, capable learners and the reform process outlined in the Successful Futures report states that necessary scaffolding such as providing exemplar materials will result in radical

change. Moreover, successful futures illustrates that sound pedagogy requires teachers to hold comprehensive understanding of the 'what, how and why' of teaching (Donaldson, 2015:71). Teachers do not only hold the responsibility of loco parentis; they are also valuable role models for the children before them (Lumpkin, 2008). It is an expectation that we demonstrate the behaviours we desire. Therefore, it is logical for professionals to also model academic expectations in order to facilitate learning.

The underpinnings philosophy of model answers is scaffolding. Providing exemplar material has numerous benefits: to unravel hidden or deeper thinking; to encourage the development of analytical skills; to influence a mastery model of academia; and to provide excellent foundations for learners to emulate. Importantly, modelling brings a greater clarity to what excellence looks like (Tharby, 2018). However, the benefits of modelling are contested. As earlier academics have highlighted, the way in which children learn depends upon their cognitive processing capabilities. If there is a lack of support or understanding towards a learner's ability to process information, model answers are going to be ineffective and an educational fad where theory does not coincide with practice (Adey and Shayer, 1994). Nevertheless, modelling can be successfully utilised in the correct manner. Tharby et al (2015) imply that embedding model answers into daily routine of teaching is the basis of quality instruction. This is supported by Rosenshine (2012) who incorporated the modelling into his principles of instruction and insisted that providing models supports the enhancement of problem-solving skills.

Moreover, the case has been put forward by academics such as Didau (2015) that the successful implementation of modelling requires a classroom culture of positivity and trust. This is complimented by Berger (2003) who has preached about the importance of classroom culture on success alluding to the fact that once a learner perceived that they are capable of excellence, they are never quite the same. This notion integrates itself beautifully with the importance of modelling in order to empower learners to become healthy and confident individuals. Breaking down the barriers of one's own potential escapes a person from a cycle of learned helplessness; where those to usually attain lower grades are unable to grasp their true potential (Maier et al, 1968).

Didau (2015) extends his perception of the subject by implying that scaffolding and modelling are vital components in teaching the skill of meta-cognition. Metacognition refers to the higher order thinking, and the practice of metacognition is said to enhance self-assessment skills. Metacognition is a useful pedagogical tool as it is believed to assist learners attain better grades (Hattie, 1996). However, as noted by many academics, the development of meta-cognition is the most challenging skill to master (Billings and Roberts,

2008). Therefore, facilitating the progress of meta-cognition in learners is battle for professionals.

Additionally, providing model answers can be an effective form of assessment for learning. Wiliam (2011) makes reference to five key strategies of assessment for learning that can all be beneficial when using model answers. Modelling expectations can clarify understanding, engineer positive dialogue that advances understanding and stimulate students to become owners of their own learning. Although assessment for learning techniques are generally underdeveloped in schools (Spendlove, 2015), incorporating model answers and the strategies provided by Wiliam (2011) afford the opportunity to fully explore the degree of learning within a classroom. Devising a success criterion based on the deconstruction of a model answer assesses a learner's ability to comprehend the necessary requirements for success, with the ideal outcome being the learner having the ability to apply the reflective skill to their own work.

### Lesson Study Design

Research is essential for successful pedagogy. It encourages a deeper, more profound understanding of the necessary requirements that will enhance practice (Kumar, 2014:2). This research will comprise a lesson study design. Lesson study refers to a method of research that focuses on observation, analyses and feedback in order to raise professional teaching standards (McNiff, 2013). This is a model for collaborative classroom professional learning; whereby teachers engage with one and other to build techniques with the aim of improving specific aspects of learning for distinguished pupils. The lesson study design is based on the premise that the best way to improve education is to have the relevant professionals conducting meaningful research that is pertinent in improving the teaching and learning within their classroom, and is suggested to be the most effective method to improve education standards (Fernandez & Yoshida, 2004). In addition, The Welsh Government (2012) believe that observation conducted by professionals within a classroom is an effective means of improving teaching quality which should enhance pupil learning. Donaldson (2015) idealistic outcome for the new curriculum is for our young people to become ambitious, capable learners who are able to undertake research and critically evaluate what they discover. Therefore, it is necessary for teachers to partake in action research, exhibiting the desired attributes of children in Wales.

The aim for this research is to improve teaching quality and to establish pedagogical techniques that are progressive. Therefore, the research can be referred to as action research (Arthur et al, 2012). action research makes quality use of our daily observations in

the hope that practice will be enhanced and focuses primarily on qualitative data (Lichtman, 2014).

The research consisted of non-participant observations as we could intervene as teachers but had to refrain from intervening as researchers. The observation schedule used to collate data is an adaptation of the Leuven scale (Laevers, 1997), that concentrates on engagement, body language and oral declarations of feelings from the focus group before and after being provided with a model answer. To further enhance the investigation, both attempts of an exam question will be graded to assess the level of progression, if any, from the analysis of a model answer. Data was captured by the researcher immediately using the observation schedule to best capture valid data; but also, discreetly in order to minimise the potential of the Hawthorne effect (Hobart and Frankel, 2004). As recommended by Dudley (2015), the focus group consisted of three participants who have previously displayed a vast disparity between target grade and performance during their study of KS4 content. This method of obtaining subjects is known as purposive sampling (Cohen et al, 2018). My colleague also identified three subjects from a KS5 class who require intervention to maximise potential.

Written consent will be required to gather the necessary data. Consent forms will be distributed home to the whole class to ensure the reasoning behind the chosen subjects is unidentifiable, see appendix 4. Moreover, verbal consent from the school and my senior mentor was sought and assent from the learners themselves, in considering of the UNCRC article 5 which states that a child's increasing capability to make decisions for themselves should be appreciated along with the respect for the rights of parents and carers (UNCRC, 1989: Article 5).

Following the lesson, a semi-structured interview will commence with the focus group. The pre-written questions are open ended and were not intended to be leading learners towards the hypothesis. The interview stage provides an opportunity of pupil voice by encouraging reflection of the lesson. Due to the freedom to expand discussion, participant permission will be requested to audio record responses and later transcribe. This is necessary to obtain more accurate, qualitative information.

To professionally carry out the research, reflection of the study took place. The reflection model chosen is that of Gibbs (1998) which depicts a well-rounded reflective process in that it includes aspects of emotion. Recent developments in the National Curriculum for Wales heavily focus on the holistic development of children, therefore the emotional impact of the research is crucial. Triangulation will be used to enhance understanding of the qualitative data collected. This refers to the trio of methods employed to gather information. For the

purposes of this study, the methods are the observations schedule, interview process and reflection. Findings are suspected to be more balanced and valid when triangulation is incorporated into research design (Carter et al, 2014).

### Ethical Considerations

There are a number of ethical considerations to subdue when conducting educational research. The code of conduct that protects the balance between the benefit and risk or educational investigation is the BERA (2018) guidelines. Furthermore, in compliance with the institutional requirements, the research will conform to the UWTSD Research and Data Management Policy (2016). To ensure this study was compliant with the standards of educational research, ethic forms were completed and submitted to the University of Wales Trinity St David ethics committee and approved prior to the start of the study.

The learner's best interests must prevail and therefore the risks to the participants were thoroughly examined. Firstly, participants within the focus group may be able to identify the reasoning behind their selection, in this case, the short comings of their performance. This could result in self-esteem issues arises. To eradicate this risk, whole class participation was compulsory and consent forms were sent out to the whole class. Secondly, participants may experience pressures to respond to the research in a particular way. Consequently, it was made clear to learners that there are no repercussions for any response to the research, within reason. In addition, post research the whole class were debriefed using appropriate, jargon free language to inform learners of the purpose of the study. Finally, confidentiality was considered throughout the research. Confidentiality protects the personal data of participants being revealed outside of the study. All participants were made aware that any data collated from the study will be anonymised and they will not be identifiable.

The ethical considerations also extended to the possible risks to the investigator. I have ensured I have adhered to the BERA ethical guidelines and the UWTSD Research and Data Management Policy to eliminate the risk of an accusation of fabrication or falsification of data. Appreciation is given to the power imbalance as a teacher and researcher, therefore, at all times I refrained from intervening as a researching when conducting the lesson study.

Thought was also afforded to the plausible risk to the university. At all times I upheld the reputation of the university through conducting myself in a professional manner at all times and regularly referring back to the codes of conduct that guide me towards ethical research.

All data collected during this research has been handled securely through appropriate protection. Electronic data has been stored on an encrypted USB devise that will be

destroyed on completion of the study. This is in line with the UWTSD data management guidelines. Notably, due to participants being children, the correct mechanisms were employed to gather parental consent from guardians as well as assent being confirmed by the participants. The right to withdraw at any given point was fully explained with participants.

### Lesson Study One

To conform to the model of collaborative professional practice, the action research commenced in two separate environments. For the purposes of this paper, each lesson study will be discussed separately, and the results will be examined in relation to one another to interpret data. First of all, the research conducted in school X will be considered.

The lesson was devised to coincide with the content being covered at the time of research, and to fit the criterion of the research. The lesson incorporated an approach to an exam style question on the GCSE religious education topic of the history of the Church. Opening the lesson, a recap was held to assess recall of prior knowledge. This allows the teacher to identify gaps in knowledge and readdress particular issues if necessary. Following this, an examination question was presented with no guidance on how to succeed in the response. This was cautiously timed. Next, a model answer was presented, and the learners embarked on an analytical activity to identify the strengths and weaknesses of the model to discuss as a class. From this a success criterion was devised and a redrafting opportunity was given to evaluate the impact of providing example materials. Prior to the lesson, six learners were identified as being suitable for the study, and this was narrowed down to three that were present and met the consent requirements. These learners were closely observed by my research colleague throughout the lesson.

My research partner followed a scale that described possible attitudes displayed by the subjects when observing. Following the lesson, pupils work before and after the model answer was scrutinised and measured against the observation schedule. Subject 1 has additional learning needs due to their diagnoses of Autism Spectrum Condition. The term condition is favourable over disorder due to the negative connotations of disorder on an individual's self-worth. As appendix 1A conveys, prior to the model answer subject 1 displayed signs of being overwhelmed and withdrawn. This is supported by their lack of effort to produce an answer to the exam style question. Once the model answer had been provided, examined and explained subject 1 demonstrated an improvement in effort, see appendix 5A. Furthermore, the subject displayed a more willing attitude and an enthusiasm in completing the exam question after the model answer had been explored.

Subject 2 is not categorised as having any additional learning need provision. Their attempt at providing a response prior to the model answer conveys a low level of understanding of what success would look like. After the model answer, the response demonstrates a more clearly structure, the inclusion of key terms and a growth in confidence when providing a response. This improvement was viable to the observer as subject 2's body language was more comfortable answering the examination question the second time.

Subject 3 has an additional learning need (medicated ADHD). They exhibited a neutral attitude towards completing an exam question prior to the model answer. However, as appendix 5C reveals, the response is poor, lacking depth structure and clarity. Following the model answer, the response is very much developed with the inclusion of key terminology and improved spelling, punctuation and grammar. Interestingly, all three subjects improved the presentation of their responses with handwriting appearing to have more flow during the redraft phase of the lesson.

In line with the triangulation of research data collection, the next phase focused on a group interview with the focus group. Expectantly, pupils were rather shy in discussing their thoughts and feelings about the lesson. Arguable, the Hawthorne effect may have had implications on the learner's confidence in expressing views due to the presence of an unfamiliar other altering the behaviour of participants (Cohen et al, 2011:189). Nevertheless, the replies to the open questions supported the notion of model answers having a positive impact on learners. A standout message from the learners concerned the level of challenge given to them in the lesson, see appendix 2A.

The reflective model illustrated in appendix 3A highlights the difficulties felt by the classroom teacher in witnessing a proportion of pupils display signs of anxiety and discomfort when faced with an exam question. The reflective model draws upon the academic advancements of the class when a model answer is presented, but also appreciates the flaws within the study that opens the pathway for recommendations in order to improve. Overall, the research conducted in school X met the hypothesis.

### Lesson Study Two

The lesson study conducted in school Y concerned a small sixth form media studies class. The lesson was devised to correspond with the content being covered, which ensures a continuum of learning rather than an ambiguous one-off session. The lesson consisted of two exam style questions being presented, one prior to a model answer and one post. The lesson began with a recap on the current topic and a brief overview of the structure on what

to expect. The research consisted of an A-Level exam style question being presented without any guidance. The observation schedules were used to observe the three subjects in the focus group, who were chosen beforehand. Once time was up, the class were given model answers to analyse and deconstruct. After studying the model answer and discussing the strengths and weaknesses as a class, the learners were required to rewrite an answer for the exam question based on what they had discovered reading the model.

As the observer, I followed the scale adapted from Laevers (1997) and measured the attitude of each subject before and after being provided with the model answer. Following the lesson, the work produced by the subjects was scrutinised and graded. The focus group from school Y arguably had the greatest disparity between their findings, with each subject responding differently to one another. This reflects the requirements for specialised teaching in key stage 5 as each individual embarks on their journey to success at different paces. Subject 1 displayed a degree of discomfort when required to deliver a response to the question. Fidgeting, zoning out and a slouching sitting position all indicated a lack of confidence and motivation. However, the work produced was average. A fairly well written attempt that included some knowledge was provided. Following the model answer, the body language of subject 1 illustrated a change in mindset. There was no fidgeting or zoning out and the only time a slouching position was detectable was when subject 1 read through their own work. The answer produced was improved as it responded in more depth, included key terminology and literacy skills were developed.

Subject 2 portrays a neutral composer prior to the model answer and provides an average written response. Interestingly, the performance of subject 2 following the model answer is exemplary. This learner was able to identify key elements in their own work to enhance and improve in line with the strengths highlighted in the example piece. Furthermore, subject 2 orally demonstrated an excellent deconstruction of the model answer during the discussion phase. The weakness of the model were identified and how to hypothetically improve on the response was exceptional. This discussion aided their ability to excel in their own written response.

Subject 3 verbalised their anxiety when faced with an unaided exam question 'I feel like I am drowning'. This was difficult to hear as a teacher but intervening to assist would have jeopardised the investigation. Importantly, all participants were debriefed about the study and how it is useful to explore the pressures they face now in order to prepare them for the upcoming examinations. Although subject 3 orally expressed frustration, their response demonstrated aspects of a strong response. The structure, depth and length, however, was not academically refined in line with expectations. After the analysis of the

model answer, subject 3 was more at ease and confident in their ability. The model answer provided a foundation of excellence to build upon, this was highlighted as they continued to refer back to the model. The work produced was at a much stronger level through their demonstration of knowledge in greater depth. The benefits conveyed in the outcome outweigh the detriments of frustration first displayed.

The next phase in the research was to conduct a semi-structured interview that consisted of open questions. This provided us with student perspective and thus, qualitative data. Remarkably, comments made by the focus group indicate that the lesson had eased their concerns of the upcoming exams as the lesson revealed the importance of redrafting work so that success can be achieved, see appendix 2B. the focus group also expressed a desire for more lessons incorporating model answers that will prepare them for the exams, suggesting that the research met the hypothesis.

The reflective model for the research conducted in school Y, see appendix 3B, indicate the timing constraints experienced with the research. In addition, it alluded to the difficulties learners themselves have when it comes to performing to an excellent standard and time management. For this reason, exam practice under exam conditions must be routine during key stage 4 and key stage 5 years to prepare learners.

#### Discussion of Research 500

The data collated from this research suggests that model answers positively impact a learner's ability to academically succeed as well as benefitting their wellbeing in becoming accustomed to the prospects of examinations. Twenty-first century education in Wales is rapidly changing, with an onus on the capacity to make connections between learning and the application of knowledge into various different contexts in order to tackle unfamiliar problems (OECD, 2013). Analytical skills are a core feature of the new curriculum. Debatably, the ability to deconstruct a model answer, identify the strengths and weakness and apply that new knowledge to your own performance is a pragmatic strategy in securing high-performing learners. Parsons and Beauchamps (2012) insinuate that the skills present in the learners from the highest performing countries are problem solving, innovation, critical thinking, selection of relevant information, application of knowledge and the ability to draw sensible conclusions. The aim of this investigation was to illuminate those key skills through model answer proviso and evaluate the outcome.

The findings from the first lesson study endorse the notion that model answers improve attitude and attainment towards examinations. More tellingly, the interview phase alluded to the requirement of challenge within the classroom. The focus group all agreed that the presence of challenge is important for them to grow and feel valued. The presence of

challenge within the classroom is promoted by Hymer and Gershon (2014) as it stretches the boarder's learners often place around themselves that can limit potential. Providing challenge and encouraging the effort to tackle complex tasks instils growth mindset and avoids the prospect of learnt helplessness as the self-worth of each child will be certified. To respond to the request for challenge, methods of suitable challenge for learners will be researched and implemented into lessons.

The data accumulated from the second lesson study also supports the notion that model answers improve attitude and attainment in relation to examinations. However, the degree to which model answers improve attainment is debatable. There is difficulty in guaranteeing an academic improvement based on the implementation of model answers. The study has illustrated improvements in grades; however, these improvements are difficult to numerically isolate due to the scope of the grade boundaries. Perhaps with model answers being use more routinely, a greater and more reliable leap in attainment could be identified. Nevertheless, the impact on attitude implies that model answers are a mechanism of aiding positive learner wellbeing in dealing with the natural anxieties that accompany examinations. As the new curriculum places a great emphasis on facilitating the holistic development of all children in Wales, it is important that professionals instil techniques that condition learners to become resilient and confident during exam period.

Ultimately, the finding of the research have emphasized how quality education cannot exist without quality teachers (Barber and Mourshed, 2007). Practitioners must be reflective in their teaching, there is a need for consistent research in order to evolve with the necessities in a particular context and teachers must establish safe learning environments for children to grow and willingly engage with their education.

### Conclusion and Recommendations

Embarking on this research has led to the discovery of highly beneficial pedagogy and closed the gap between the perception of theory and practice. A schooling environment has the responsibility to enrich learning and henceforth, practitioners should hold a repertoire of education strategies to ensure the needs of all learners are being adhered to (Jonassen and Land, 2012).

The research conducted has various points of strength and areas for improvement. Firstly, an advantage of observation research is that it afford the opportunity to witness an incident rather than relying on reports and figures. Criticisms are often voiced on research conducted using the survey approach as this method may be jeopardised by biasing factors. However, the disadvantages of observation research are; it can be timely and costly in some instances, interpretation when observing is at risk of being subjective, there are possible

invasions of privacy and only behaviour or physical characteristics can usually be examined. The majority of these points were considered in preparation for the research. Due to the type of research, cost factors required no consideration, but we ran into some difficulties with the time constraints. For example, logistical elements of the research such as which class to conduct the study with that works for both researchers and issues with deciding on the focus group participants created hurdles along the way. Nevertheless, the research commenced.

Importantly, the use of triangulation in data collection improved the quality of the information gathered. The use of triangulation in qualitative research has been advocated by many academics who suggest it strengthens the validity of a study (Patton, 2001). However, the reliability of this data is questionable. External factors will always influence results to some extent, the goal for successful researchers is to minimise the risk as much as possible (Carmines and Zeller, 1989). This issue with the study equates to the small sampling size. Generalisation of findings are impossible as learners from other socio-economic backgrounds, learners of different abilities and learners who have English as a difficult language all may respond differently to the research. Hence, even though the participants within this research met the hypothesis, the findings cannot be scientifically approved and generalised. A nation-wide investigation that includes a large proportion of learners would generate findings that hold more integrity and influence over educators.

Perhaps a method that could have been utilised to ensure the study runs smoothly would be a pilot study. It is suggested that conducted pilot studies are essential when undertaking qualitative inquiry to ensure research is competent (Yujin, 2011).

Although the research may not be scientifically adequate, the findings will influence my practice. First and foremost, although academics such as Spendlove (2015) argue that assessments merely highlight the weaknesses in a learner's capabilities, it has become apparent that the practice of assessments is necessary to build skills. To condition learners to feel more at ease with assessments, providing model answers seem to be effective. Therefore, I would routinely include model answers when expecting exceptional work.

In line with the professional teaching standards, reflection on practice is central to good quality pedagogy. I will consciously work to extend knowledge, skills and understanding to demonstrate the benefits of how reflection can enrich learning (Welsh Government, 2019). In addition, daily routine will enhance my ethnography as observations are a core element of excellent teaching. The Hawthorne effect will be eliminated rendering the research more authentic. The data gathered from daily observations will be used to adjust my teaching and improve standards for the learners. The information would also be shared to improve practice beyond my own classroom.

To further broaden the scope of the research, it would be interesting to enquire whether or not more able and talented learners respond in the same way to the provision of exemplar material, or if model answers limit their natural mastery writing abilities. In addition, this would be useful for professional to comprehend the extent to which differentiation should be used within the classroom. If learners of various abilities respond differently to model answers, the differentiation of the resource must be routinely implemented. Finally, the way to model expectations must be considered and fitting for the context. Perhaps a phase of partial model answers would be more beneficial to key stage 5 whereby an 'I do, we do, you do' structure is followed. This would lay the foundations of what is expected but encourage innovation at the same time.

The aim of a teacher is to enable all learners to obtain the knowledge that takes them beyond their experience. To accomplish this, building positive relationships and creating a safe environment will enrich pedagogy. Within my professional practice, I will use model answers to unravel the potential of the learners before me and solidify the notion that no person is born excellent. Excellence is something that requires effort, resilience and innovation. Through the implementation of modelling, I anticipate the growth of Welsh citizens who encompass the four purposes set out by Professor Donaldson (2015).

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