

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

	Targed/Target	Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn. What I have done in this assignment.
Targed/Target 1	Proofread with care	I have ensured that I have read over my assignment and have use grammerly
Targed/Target 2	Check that all concepts and foci are clearly explained at the onset	I have ensured that I have been more clear with my concepts throughout.
Targed/Target 3	Critical points are fairly regular but require more consistent explanation of ideas.	I have tried to be more clear with my explanation and ideas throughout.

Introduction

Throughout my teaching experience, it occurred to me just how important the retention of key quotes is throughout the curriculum. Specifically, with the need for the retention of lines for drama GCSE (Wjec.co.uk, 2019) and for English GCSE to memorise key information for exams (Wjec.co.uk, 2019). We will focus on two focus groups of three pupils in two different year seven mixed ability classes to gather information from higher ability pupils, lower ability pupils, and pupils that are in the middle. For the purpose of this project, we will focus on 'Does the use of actions help the retention of key quotes?' in the hopes to help the learners not only in the drama and English curriculum but also across the whole curriculum where needed.

In both classes, there are a variety of learners and so this method may not suit every pupils' needs. However, after exploring different methods with pupils this is one that I want to explore with my class due to the vast variety of abilities. On discussion with my partner, due

to our subject areas needing pupils to retain key quotes in readiness for their exams (Wjec.co.uk, 2019), we decided that we could both try this method in different style classrooms (One performance space and one classroom where the students sit at desks) to see what the outcome is. For my class, this means that we can explore an important text and all work together to retain key quotes using the use of actions.

Literature Review

Throughout literature, it is argued that using gestures to aid language can either be an advantage or having no effect at all (Breckinridge Church, Ayman-Nolley and Mahootian, 2004). In the context of education, it is said that pupils will gain more from instructions given to them when gestures are used in comparison to when gestures are absent (Flevaras & Perry, 2001; Goldin-Meadow, Kim, & Singer, 1999; Neill, 1991). Therefore, when teachers use gestures when showing students how to problem solve, the students then are able to imitate the gestures in order to aid their own problem-solving activities and also they are able to produce their own gestures to aid their individual learning (Cook and Goldin-Meadow, 2008). In our research, we hope that this will help to aid the pupils in memorising their key quotes. Having the children produce their own gestures to aid their own learning will create more independent learners which agrees with Donaldson (2019). There are different types of gestures however we want to focus on representational gesture as this best suits our study.

Representational gestures are used so that the learner can form their own gestures that are created from their own conceptions of speech (Breckinridge Church, Ayman-Nolley and Mahootian, 2004). Due to representational gestures' individual nature, it is useful for the assessment of independent thinking patterns (Church, 1999). During research Thompson and her colleagues (1998) were exploring whether the use of gestures aided the recall of information. They found that with the use of gestures, people of all ages were able to recall more information from speech. This is proof that gestures can aid the recall of information and also gestures can boost learning, however, sometimes pairing speech with gesture results in a gesture speech mismatch (Perry, Church, & Goldin-Meadow, 1988). This is when someone can understand and solve a problem through speech but not gesture or vice versa (Gouldin-Meadow, 2009). According to Goudlin-Meadow (2009) when telling pupils to use the same gestures for the same problem-solving activity, they were able to retain the information from the lesson which bettered their understanding of the topic. Moreover, in conjunction with this when pupils were expected to use words without any gestures to solve

the problem-solving activity there was no solid evidence to say that it benefited the learning in any way (Cook, Mitchell, & Goldin-Meadow, 2008). Due to the use of embodied language, Lozano and Tversky (2006) believe that gestures can aid learning. In a classroom, teachers tend to use gestures when speaking and teaching children. They use this to reinforce the message that they are trying to portray and this helps to clear up misunderstandings with the pupil (Vallotton et al., 2015).

Short term memory and long-term memory are the two types of memory (Ullah Amin and Saeed Malik, 2014). According to Ullah Amin and Saeed Malik (2014) short term memory, can only hold between 7-9 items at one time and these will be forgotten after a few seconds. Whereas your long-term memory retains information for an infinite amount of time and there is no limit to how many memories you can retain (Ullah Amin and Saeed Malik, 2014). For the research data that we need, we are going to look at the working memory. In accordance with McLoed (2015) working memory and short-term memory are in fact the same, however, instead of all the memories going to one place, there are different storage spaces depending on what type of information it is. The stimulated recall was the focus of our research because we found that this form of recall allows learners to remember thoughts that they have while participating in certain activities and performing (Gass, S., Gass, S., Mackey, A., Mackey, A. (2000). It can be assumed according to (Gass, S., Gass, S., Mackey, A., Mackey, A. 2000) that visual or aural reminders can stimulate the memory from the performance or event that the students were apart of. In line with Ullah Amin and Saeed Malik (2014), this classifies that the use of retention is to store events and information and recall is the only way to measure a learner's memory capacity. One criticism that was raised was the fact that sleep plays a big part in a persons memory and recall (Ullah Amin and Saeed Malik, 2014) this could have an effect on the research due to the age of the pupils being studied and also the fact that school B is situated in one of the most deprived areas (Estyn,2012). Another tool that can help recall is repetition.

Throughout the research, it is stated that it is difficult to determine how much repetition influences learning (Hintzman, 2009). It is assumed by Gillund and Shiffrin (1984) that when repetition is used in load it is less effective than when it is used spaced out over time. Linking back to short-term and long-term memory Schmelzer (2015) states that there are only 3 ways in which memories can pass from short to long term memory, Repetition, Urgency or association. Due to repetition being used throughout education it is thought by Schmelzer (2015) that repetition can further develop the learning of pupils. This is why the use of repetition is important for this research study because by using (Susan Wagner Cook and Susan Goldin-Meadow (2006) realization that pupils can imitate gestures from teachers

demonstrations and explanations and by using Gillund and Shiffrin (1984) idea of spacing repetition out to enable students to recall more into long term memory, it will really provide answers to the research question.

Lesson Study Design

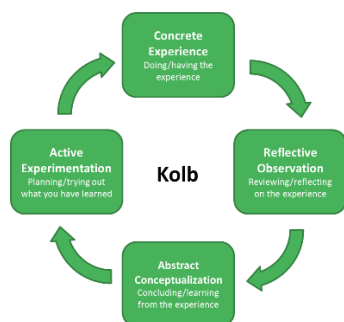
For this research, I was required to conduct a lesson study. The reason that we conducted a lesson study is that in accordance with Dudley (2011) we believe that it enables teachers to discover ways to help the pupils to be more successful in their learning. For a lesson study to be successful the pupils' progress must be visible by the end of the lesson (Dudley, 2011). However, in accordance with Weston (2017), there are some teachers that will wave results for them to ensure that what they find out is different from what the researchers expected to find. In order to ensure that our results are accurate, we did not wave our results.

Prior to the actual lesson study, we selected our research question and the two classes that we were going to select our focus groups from. Since we want to collect qualitative data it was essential for our research that we were to select focus group pupils (O.Nyumba et al., 2018). Qualitative data approximates and characterises (Surendran, 2020) and it is useful for use with focus groups and enables researchers to analyse their data in great depth (Surendran, 2020). Following the guidelines of the ethics committee (see appendix – ethics form) all the relative information and consent forms were given to the parents and guardians of the pupils in both classes. As shown in my ethics form (see appendix- ethics form) one of the possible problems to this research would be the possibility of the class feeling left out if they were to find out what three pupils were chosen as the focus group (BERA, 2018). In order to minimise this, all forms and information was given to the whole class and the focus group were made aware separately who they were.

The reason that we chose to select a focus group for our research is that it offers us the ability to have real-life conversations for our data collection method. This also allows us to understand the human perspectives which are critical in conversation research (Bennett et al., 2017; Khadka, Hujala, Wolfslehner, & acid, 2013; Paloniemi et al, 2012). Another strength of using a focus group is that the researcher can select the individuals that they want to partake by deciding what people that they need to get the most accurate results (Gerger Swartling, 2007). The participants can contribute, discuss and decide throughout the process (Gerger Swartling, 2007). This is something that I was positive about because in education it is important to improve both teaching and learning and to create independent

learners (Donaldson,2019). By being able to have discussions with the focus group of pupils, it felt a lot more inclusive. For justification, using focus groups as our method instead of using a questionnaire or one on one interview method is because using a focus group will give more honest results as it is more difficult for the researchers to control and it is a lot more based on human and social responses between the chosen focus group (Gibbs, 1997).

In order to collect the relevant data for this study, both researchers produced a lesson observation Performa (see appendix- lesson 1 and 2 observation), a reflective Model (see appendix- reflective model) and interview questions for the focus group (see appendix- interview questions pupil 1a,2a and 3a). This was used to collect data to provide evidence for our research question which was identified by myself and my partner as an area for development in our students learning (Teacher Development Trust, 2015). The reflective model that we choose as being appropriate for our research was Kolb's reflective model from 1984.



“Learning is the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 38).

On reading and reflecting on this quote that was written by Kolb (1984) it was clear to us as researchers that we wanted to use this in our research lessons. In our lessons, we want to give the learners an experience of which they can gain the knowledge that they need to recall the key quotes. Something that was important to us as class teachers were finding out what methods best suit each different learner by meeting their individual learning needs. Kolb is a big believer that students will gain more understanding and a better education if their least preferred learning style is identified and engaged with and so we were sure to select pupils with different learning styles that were identified by the student-teacher who had taught the class for some time (Mcloed, 2015). However, having said this, due to the lack of class time that the researcher had taught the class and due to the fact, that deciding what ‘type’ of learner your pupils are is not 100% accurate. It isn’t the most reliable focus for the research and so other factors such as ability were taken into consideration. The

selection of Kolb's reflective model was chosen due to the focus on experience prior to reflection, analysis, and evaluation, we believed it would give a more personal outcome and this would reflect on our experiences throughout the study (Brown, 2015). We didn't choose to complete Gibbs' (1988) ARC reflective model because unlike Kolb's' reflective model the ARC model focuses a lot on feelings (mind tools content team) and we felt that this wasn't the correct reflection for us due to the research partners being fellow PGCE students and so we didn't want feelings to wave results in any way. The reflective model that Kolb produced allowed us to plan and continue to practice what we learned from each lesson (see Kolb's diagram above) however Gibbs' model only allows you to reflect on what could be done rather than giving you the opportunity to put this into practice (Mindtools.com, n.d.).

Ethical considerations

Prior to the research, and ethics form template that was produced by the University of Wales Trinity Saint David which was based upon the BERA guidelines (BERA, 2018) had to be completed. This was to ensure that the research question was ethical and could be approved by the ethics committee. This committee also had to give the go-ahead to the data collection methods and to the intended use of the published data. The completed Ethics form was then sent to the ethics committee to be approved and reviewed if needed before the researcher getting the approval to begin their research. Prior to the lesson study, the consent forms, interview questions, and observation schedules were sent out to the selected pupils to ensure that consent was granted prior to the students being considered for partaking in the lesson study and ensuring that the participants were aware that they could withdraw from the study at any point.

Lesson study 1 results and analysis

Throughout the duration of the lesson study, the students all had different attitudes to the activities. However, each student achieved the goal of the lesson at different levels which did meet their individual abilities. Student 3a who is a higher ability pupil (MAT) was very engaged in the lesson. She was very motivated to learn as many lines as were presented to her. She was committed to the lesson objective. Throughout the lesson, she showed an outstanding attitude to learning (ATL) and the actions helped her to recall the quotes (see appendix- Lesson 1 observation). On the other hand, when she was asked to recall the quotes at the end of the lesson, she didn't use all the actions for every quote. The actions

weren't her driving force for memorising the quotes; the repetition of the quotes played a big part in her outcome.

Student 1a was a lower ability pupil with lower literacy levels. He was very engaged and demonstrated a high ATL. It was very clear that he wanted to memorise every quote. On recall, this pupil struggled with memorising the quotes that consisted of 8+ words. This could be due to the lower literacy level that he has however, there are several other factors that could have played a part in his difficulty. For example, linking back to the literature with Ullah Amin and Saeed Malik's (2014) their view of lack of sleep paying apart in information recall. On recall, he was frustrated with himself when he couldn't remember all the quotes. Moreover, he was able to perform the actions that went with the quotes. This shows that he was able to memorise the gestures, so he was able to remember parts of the quotes, but he couldn't completely link them together. This relates back to students being able to use their gestures to help them to problem solve after previously seeing the gestures being used (Gouldin-Meadow, 2009). He also recalled all the smaller quotes. With the repetition of going over the quotes, he showed a strong commitment and understanding of the activities and lesson objectives given to him.

Student 2a was a pupil who placed approximately midway between both student 1a and student 3a with ability. He showed traits of both the other two pupils however was unique in the results. His attitude to learning wasn't as positive as the other two students. This pupil got distracted a lot easier however when on task this pupil produced great outcomes which are evidenced in the results (see pupil 3a data in appendix- research data). He was frustrated with himself which was like student 2a when he couldn't remember the quotes. However, with a little encouragement, he got back on task and his ATL improved when he was succeeding.

After consideration, this lesson could have been improved by providing the class with more quotes at each level of difficulty. This would have enabled the pupils at all abilities to have pushed themselves more at the ability that they were happy with. This would have enabled me as a teacher to encourage the students to challenge themselves to try to recall a few of the quotes in the band higher than they were comfortable with. By giving the pupils more quotes at each level this would have helped the students to feel accomplished even if they weren't memorising the most difficult quotes. This lesson focused on how many of the 12 quotes that they could memorise and so the pupils were focused on completing all 12. If I was to give the students more responsibility for choosing their own 12 quotes no matter what difficulty, then they would feel more accomplished because they would have taken more

responsibility for their own learning (Donaldson 2019). This would also give the MAT pupil more of a challenge too which could have changed the results. It would possibly have given more of a true reading as it would have been more challenging so therefore would produce different results.

This lesson taught me that you don't always get the results that you anticipate. It also taught me that pupils are not always going to react to the lesson as you want them too and that there are many different factors that can change a student's attitude to learning for example lack of sleep (Ullah Amin and Saeed Malik, 2014), nutrition and also issues that happen outside the classroom and these cannot be controlled. The main thing that I took from this lesson study was that by only giving the students 12 quotes to learn, 4 with 3-5 words, 4 with 6-8 words and 4 with 8+ words it didn't challenge all the pupils at the correct level or pace. The use of repetition of the quotes helped the pupils in my class to memorize their quotes (Schmelzer and Schmelzer, 2015). If I was to redo this lesson study, I would take the amount of repetition into account to produce better results. It would be interesting to find out what would happen to the results if the amount of repetition that we used with the quotes was minimised and controlled.

Lesson study 2 results and analysis

For the second lesson observation, the researcher took and developed ideas of using actions to aid the retentions of quotes and produced activities to be taught for an English lesson.

The class was a lot more challenging to engage in the typical sit down at desks classroom and there were very challenging individuals present in the lesson (see appendix-lesson2 observation). Overall the focus group produced a variety of results that contributed to our study. The researcher chose to keep the class seated throughout the quote and action learning which was a contrast to the first lesson observation, and it was evident from the atmosphere of the class that some pupils didn't feel as engaged in this setting (see appendix- lesson 2 observation). However, since the researchers didn't teach the same class it is difficult to compare both class's engagement.

All students did meet the lesson goals of being able to recall quotes presented too them. This was achieved at different levels for all pupils which represented their ability. Student 1b was the most engaged student throughout the lesson. He showed complete commitment to pairing the quotes with actions (see appendix lesson 2 observation) and he was able to

recall all quotes at the plenary of the lesson. His ATL was outstanding and this clearly showed in his high performance of recall.

Student 2b had poor engagement throughout the whole lesson however did pay some part in the class activity. Overall, he didn't recall many quotes, but he was frequently using the gestures with the quotes given (see appendix lesson 2 observation). This student ATL was poor throughout the lesson and he wasn't very interested in the activities provided which was disappointing. However, in line with (Surendran, 2020), this could have been the type of learning that is the weakest for this learner and therefore this learner could have been disengaged due to lack of self-confidence and understanding.

Student 3b was the most disengaged pupil throughout the whole study. It was a disappointment that this student's ATL wasn't the most positive because she isn't a student of lower ability and she had the capability of completing the tasks. As stated above many things can be the source of a child's change in behaviour for example lack of sleep (Ullah Amin and Saeed Malik, 2014) and therefore there could be many explanations as to why this pupil wasn't engaged. On reflection of this pupil's answers throughout the interview (see appendix pupil 3b interview questions) it was very clear that this pupil had a lack of self-esteem and commitment to the tasks "I have a mind like a fish" and "I found the quotes quite boring" with more persuasion and reinforcement of positive praise this pupil's outcome could have been different.

I feel that this lesson could have been improved by having the children to be on their feet because the children in lesson 1 who were on their feet the whole lesson seemed to be a lot more engaged. Also, I believe that the amount of disruption that the teacher got from select individuals who weren't apart of the focus group paid a part in the whole class's engagement in the lesson. Therefore I believe that if this behaviour was tackled sooner then the results would be different. From this lesson, it was clear that by finding out the learners individual learning styles (Mcloed, 2015). it would have led to a fairer reading of data for the results.

Discussion of research finding

Throughout the study of the literature, it was suggested that the use of repetition aids learning and that the use of gestures does too (Breckinridge Church, Ayman-Nolley and Mahootian, 2004). Over the course of this study, these were proven through our results and interview answers. It was clear throughout both lessons that repetition helped the students with both the recall of the quotes and the gestures too because pupils were able to recall more quotes at the end of the lesson in comparison to the start and beginning (see appendix- lesson 1 observation).

It was also clear when assessing the pupils at the end of the lesson and through their interview answers (see appendix- interview questions pupil 1a,2a and 3a "using actions helped me to link the quotes to a movement") that the use of actions did aid the retention. However, there isn't an extensive amount of research proving exactly how much impact both the use of gestures/actions and repetition has on education or memory. Therefore, there needs to be a lot more research and studies in order to delve further into the findings of these anomalies.

For this class, the data proved showed that actions can help the pupils to retain quotes however it also demonstrated that this can depend on the pupils' ability and attention span. Therefore going forward with my research I want to study the effects of attitude to learning in relation to retention and recall.

This study has highlighted that the use of repetition and actions together can aid the retention of quotes however it would be interesting to study these factors separately to see how/if the data would differ. The research showed that the use of actions does have an impact on speech retention, and this proves the findings of Thompson and her colleagues (1998) and gives suggestions of where the research could go next as stated above.

The limitations of this method would have to be the time that the study was carried out over and the fact that not all learners are kinaesthetic learners (Diaz, 2019). So, with my future research, I would want to take these two factors into account in order to gain more realistic and reliable results. In my professional practice, I will continue to use actions and repetition in order to help my pupils to memorise information however I will also further explore other methods to aid learners of all learning types, for example, look, hide, speak. I believe this will have more of an impact on the class since it is a mixed ability class and I will offer the pupils the choice of which techniques best suit them. This will ensure that they are making independent choices and becoming independent learners which relate to Donaldson's (2019) new curriculum.

Conclusion

To conclude this study the results were very clear. Even though as stated in the literature there isn't any concrete evidence that states that the use of gestures helps to improve learning (Breckinridge Church, Ayman-Nolley and Mahootian, 2004), it has been evident through focus group interviews (see appendix – interviews 1a 2a and 3a) and the results that gestures do in this case help students to recall information. The methods for data collection worked for this study. The observation proforma ensured that the observers had a clear purpose of focus and enabled them to collect specific data on each focus group pupils but also on the class. The focus group interview questions ensured that we were able to get the opinion of the observed and were able to have real-life conversations which allowed us to understand the humans prospected (bennet et al.,2017; Khadka, Hujala, Wolfslehner, & acid, 2013; Paloniemi et al, 2012). However, the questions used didn't always produce in-depth answers and so in order to add to the depth of the research if this study was to be done again, I would suggest using more open questions in order to get more extended answers to aid the research further.

The use of Kolb's reflective model (1984) ensured we made in-depth reflections of the lesson studies and it ensures that we were focusing on how the research could be taken further in future research. We were able to ensure that the pupils were gaining knowledge through experience (Kolb, 1984, p. 38) and therefore it was a more personal experience (Brown, 2015).

This being said due to the data only being collected from six pupils who all attend the same school that is situated in one of the most deprived areas of Swansea (Estyn 2012) this research isn't able to speak for the UK as a whole or even just for Wales. Therefore, this study would need to be done with a wider range of students from different areas throughout the UK for it to have more of a reliable outcome. However, the time that the researchers had to plan and undertake this study and the pupils and school that was available to them didn't allow them to do this and so they made good use and had relevant outcomes for the situation that they were in. With a larger and broader selection of focus group pupils, this could have made the results more valid for future research however this would have been more difficult to manage and control (Evalued.bcu.ac.uk, 2006). During our lesson studies, we played the role of teacher and the participant-observer because this allowed us to see exactly what was happening and be a part of the lesson (Urquhart, 2015). This ensured that

the pupils were more at ease with the observer in hopes to minimise the change in behaviours which can occur according to Mcleod (2015) during observations.

Going forward in teaching I will further delve into the use of gestures and actions throughout my lessons to gain more understanding of how they can help not only for recall but also for giving instructions to my pupils. This will help me to further explore the idea of gestures during explanations helping pupils to remember what is said and help them to figure out what they must do (Flevaris & Perry, 2001; Goldin-Meadow, Kim, & Singer, 1999; Neill, 1991). I will also further explore the repetition of information when learning because it would be interesting to see the impact that the repetition of the quotes had on the outcome of results.

Personally, I do believe that the use of quotes does impact the retention of quotes. However, I do believe that this is subject to a student's attitude toward learning and to the type of learner that they are.

After carrying out this research I would recommend finding out what types of learners that you are researching in order to gain more accurate readings for the results. However, after conducting the research it was clear that the use of actions did help with the key retention of quotes. This could be used going forward into further research as a starting point. Further research could look at whether the use of actions helps visual or kinaesthetic learners retain key quotes more or possibly whether the use of actions helps the pupils to retain key quotes over a certain amount of time. The lesson study that we did was only over the course of an hour so it would be insightful to go back and see whether the pupils can still recall the quotes now after a few days of the research being carried out. If I did this lesson study again I would definitely use the same quotes for both classes because I feel that this would have given us a more accurate readings for both classes, I would also have found out what type of learners they are instead of just going off their ability because I feel that this also would have given me more of an accurate end result.

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