

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 pupils in a mixed ability class choose tasks that align with their current attainment level and why?’

	Targed/Target	Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn. What I have done in this assignment.
Targed/Target 1	Consider developing counter arguments when critically evaluating the impact of your own practice.	I have put forward arguments from a critical view about the research and the results of the research and explained that these considerations need to be made aware of when putting the research findings into practice.
Targed/Target 2	Engage with a wide range of relevant literature to inform and build your personal viewpoint.	I have engaged with a wider range of literature which I feel has been relevant to this assignment and I have built on my person viewpoint.
Targed/Target 3	Build upon your ability to propose solutions and apply them to complex problems which arise in practice.	I have proposed solutions to the problems and areas of improvement which have been highlighted by the research.

The purpose of this research was to identify if students were given a choice of tasks in the classroom from a range of levels, would they choose the correct task for their academic ability. This Interested me because the school which I have been completing my PTE1 in seemed to have a strong sense of growth mind set and over all the students gave a sense of pushing themselves as much as they could. Teachers which we spoke to often mentioned

that if students given the option, they would choose the correct level of work or push themselves higher. This would also help to identify whether adding this type of activity to my lesson plans were a suitable option. My research partner was situated in another school and we intended to see whether the results were carried across to other schools or whether they gave different results. This would identify whether these strategies could be used in different school settings or whether giving options would be dependant on the school culture.

In my classroom I have a class of 32 students with mixed ability in a History lesson setting and my research partners classroom has 28 students of mixed ability in an English lesson setting. We discussed the research question and identified that we would base our research on the question. 'Do pupils in a mixed ability class choose tasks that align with their current attainment level and why?' This means that for my class I will be implementing different levelled questions in the main task using blooms taxonomy to give different levels of questioning as a form of differentiation and my research partner would implement levelled questions in the lesson that they would deliver.

I looked at literature which surround this area of thinking and found that there was a consensus that pupils with a 'growth mind set' and those who gained intrinsic rewards from engaging in lessons achieved their expectations or higher.

Studies such as that of Patall, Cooper and Wynn (2010) show that by giving students choice they gained a higher intrinsic motivation to complete the work and overall perform better on the tasks compared to when there was no choice given. However, Beymer and Thomson (2015) acknowledges that too much choice could have a negative effect on students because students could become overwhelmed by the choices and then regret the process of having to make that choice. Therefore, we need to consider that although choice can have intrinsic benefits, if students are given too much choice then this could lead to students becoming resentful and uncooperative. This will influence our work by limiting the choices to 3 or 4 possible options.

Literature research also tends have a consensus that students who are brought up in a culture which promote a growth mind set tend to embrace challenge more and, in most cases welcome challenge as a means of learning and improving. (Gershon 2016) Muijis and Reynold say that "*School climate will strongly influence classroom climate, and in order to be effective the two need to be complementary*" (2011 p.128) this is important to remember because When we talk about students having a growth mindset, we are indicating that a student believes they can improve and learn by putting in effort, the more effort which a student gives the more they will improve (Haimovitz and Dweck 2017) and this is embedded in the culture of the school. Therefore, because this research aims to see

whether students challenge themselves at the correct level or higher than they should be working at or whether they decide that they will choose an easier option these decisions could be influenced by the type of mindset a student has and this could also be influenced by the culture in the classroom and the school. Geoff Petty talks about Maslow's hierarchy of needs he says that '*Making choices to control your own development in the direction of your own values*' (2014. P.51) helps you to meet the self-actualisation need which is placed at the top of the theory. This means that by allowing choice in the classroom and allowing students to have their own autonomy on their learning they are working towards meeting this need.

However, others have identified there are faults with the process where choice is offered, this comes down to the self-concepts of ability. Students who don't believe that they can be successful in the task will be less likely to decide to challenge themselves and therefore maybe not research their potential (Ames, C. 1992). This idea has been identified as having a fixed mindset where students believe that they will only achieve what they will no matter how much they try to challenge themselves or much effort they put in, their ability is fixed and cannot be improved through effort. This thought process leads to students not trying to challenge themselves and, they see fault in the things which they get wrong (Haimovitz and Dweck 2017). We need to consider this when we conclude our findings as depending on the type of mind set which the students have, and the culture of the school will have an impact on the choice of tasks which is undertaken by the student.

When we are looking at structuring questions for different levels of ability it is important to remember that Blooms taxonomy has been a long-standing method of structuring questions at different levels. This is a Hierarchy of cognitive processes which is structured from simple to complicated, and these processes can be applied to questions within the classroom. The fact that this structure has been used since the introduction of the post war education system in the 1940's and 50's indicated that they have credibility in their structure with continued efficiency (Gershon 2015) Krathwohl and Anderson (2010) have pointed out that the original Blooms taxonomy is too simplistic in its structure and that there are many layers to the cognitive process which cannot be defined independently from other areas. However, for the purpose of this research the use of the original Blooms taxonomy as a way of structuring different levels of questioning will be enough.

The use of encouraging higher order skills and thinking in the classroom has been identified by Donaldson as one of the ways in which education is moving forward, he says that '*There are significant moves away from 'learning about' to 'learning to', with a growing skills focus and an emphasis on application and development of higher-order skills.*' (Donaldson. 2015. P18)

Therefore by using higher order questions from Blooms taxonomy we are building on the skill which students need to become independent learners which is one of Donaldson's key purposes of the new curriculum for Wales he said that we need to be building '*ambitious, capable learners, ready to learn throughout their lives.*' (2015, p.29)

With all these point in mind my research will hope to build pedagogy skills which encourage and promote independent learners who will be ambitious with a growth mind set which will they will then be able to build upon as they move into adulthood and Welsh citizens.

The methodology used in this lesson study research is a form of action research where the study takes place in a normal lesson setting (Dudley 2014). The students in the class will be delivered a lesson from the scheme of work and the activities for the lesson are designed to gather a greater understanding of a pedagogy practice where this information can then inform future teaching practice. This is seen as a positive way of working in the education system the Department of education in their handbook on 'improving subject pedagogy through lesson study published in 2010 says that using this type of research in the classroom "*enables teachers to learn from each other in real classrooms with the children they have responsibility for teaching.*"(2010, p.3) This is seen as a positive thing because this will lead to more accurate findings as the students are not being put in to an unnatural situation. Even though this could be classed as a more naturalistic observation because it is taking place in a normal setting it is more likely to be a non-participant observation because other members of teaching staff are present in the classroom and there are more control over the variable in the lesson than that which you would have in a naturalistic observational setting (McLeod, 2015)

The lesson study methods originated from Japan and has been adapted by professionals in other institutions (Murphy et al, 2017). The Lesson study design requires researcher to produce a series of lesson plans in this case 2 lessons in total, one of the researchers then conduct the lesson and the other observes the pupils, an interview with the pupils takes place where the students are required to answer a series of questions about the lesson. A discussion then takes place and the second lesson is revised to make improvements on the pedagogy principle being studied. Once the lesson plan has been revised the second researcher then delivers the lesson and the first research observes the selected students while the lesson takes place. The researchers then interview the student with the same questions which were used to interview after the first lesson. The researchers then discuss the findings and compile a written report on the findings. (Murphy et al, 2017)

There are beliefs that classroom observations can be limited and Education encyclopaedia 'stateuniversity.com' states that some:

'argue that the selection of events or behaviours may not be clear to anyone except the observer or instrument developer. In other words, classroom observation research has not dealt with the theoretical assumptions of why a particular style of teaching or set of instructional variables influences student learning.'

<https://education.stateuniversity.com/pages/1835/Classroom-Observation.html> accessed 19 February 2020)

For this reason, this observation has been designed so that it looks at a specific behaviour of students and this could be replicated in other classrooms by providing differentiated tasks and allowing students to choose. The study reduces the risk by also implementing data collection methods such as observation schedules and set interview questions and using reflection collection sheets for analysis.

Another consideration in lesson studies are that of the observer effect. This is where the observer can affect the outcomes of the participants being observed because they act different. (Denscombe 2003) In both the school setting which these lesson studies take place there is a good observation culture therefore students are used to other members of staff being in the room therefore this should reduce the risk of this taking place.

The method of data collection is a non-participate observation where one of the research acts as the observer in the lesson. The observer makes observational notes which are based on an observation schedule. The reason that an observation schedule is required is 'to minimize, possibly eliminate, the variations that will arise from data based on individual perceptions of events and situations' (Denscombe 2003) The observation schedule has a section for each student being observed where note can be made on any key events, the focus/engagement of the students which are overt and obvious to the observer. The schedule was designed to check at regular spacing during the lesson whether the designated students were engaged in the lesson. See appendix 3 The Observation schedule was designed to collect qualitative data.

The observed participants will be chosen from the consenting students in the class. A range of abilities will be chosen where possible. One student with an ALN, one student from mid-range and one student from higher or MAT ability in each of the two research classes. These students will be chosen in order to give various views in the study and to determine if students from a variety of different levels attempt to challenge their ability, chose the right level of ability for themselves or whether they complete work which is below their ability.

The focus group of 3 students from the 2 different classes will be ask a set of pre-determined questions which the students will be asked in the focus group See appendix 4. These questions include how the students felt about the lesson, which task did they choose and why did they choose this task. Also, what improvement they felt the tasks in the lessons could have.

Lesson reflection will also take place after the first lesson using the reflection schedule see appendix 5. This will then help to revise and inform the second lessons task structure.

The lesson itself consisted of giving the students a choice of tasks within the lesson which aimed at different levels of ability. Lesson study one used different levels of Blooms Taxonomy in order to produce a written task which students could chose to answer any of the questions. Students were told that the different questions where for different levels of achievement and that they had the option to choose one of the questions to complete in their exercise books.

For the second lesson the students were given a written/ pictorial task in the middle of the lesson this was designed to differentiate the lesson for all levels and students were able to choose the task for themselves. The Students were told that these tasks where from a variety of levels and different colours for the tasks where given in order to make the task levels more visual. The plenary task in the second lesson was also levelled and students where given the option of answering questions which challenge their thinking or answering questions which they had covered previously. The students where told again of the different levels and the questions where given the visual ques of start to different levels of challenge.

There are ethical considerations which need to be taken into account when doing research within the classroom these include using the UWTSD Research Ethics and Integrity code of Practice, the UWTSD Research Data Management policy and the British Education research association guidelines. This research required ethical approval from the University ethics committee before the research could take place.

The guidelines must be followed and include the anonymity of student and the school which the research is taking place. (BERA 2018) Consent and ascent will be required from both the parents and the students who take part in the study, this Consent can be withdrawn at any time. Please refer to appendix 1 for a copy of the consent and information sheet handed to all students in the class. Interviews will take place in a comfortable setting where students will always be with other participants and members of staff. There will always be other members of staff present to avoid risk of accusation. To reduce the risk of bias there will be another teacher from a different school recording the data and findings. See the Ethic form in Appendix 9 for further information.

During lesson study 1 a history lesson on the Battle of the Somme was delivered. The students in the class were over all engaged and interested in the lesson. Most students in the class completed work which was expected for their ability and engaged with tasks to their ability.

The 3 students chosen for the interview and pupil voice feedback where all asked at the beginning of the lesson if they would be happy to be interviewed at the end of the lesson and the students all gave verbal consent.

Observation notes taken during the lesson for student 1 indicated that this was distracted at points during the lesson and often delayed starting the tasks set during the lesson. This student is of low ability and requires additional differentiated support sheets. This student did have hands up at points during the lesson which indicated that they were listening even though they were showing disengaged behaviours. This student completed the easier of the written tasks. They used the writing frame given and answered with limited content.

Student 2 was the higher ability student. This student showed on task behaviour throughout the lesson and mostly stayed engaged. The student offered hands up to answer questions during the lesson. This student chose to complete the more challenging question in the option task, they were engaged during this and gave a comprehensive answer in their workbook.

Student 3 was the mid-range ability student engaged with the lesson from the beginning. This student had their head down and worked well through all the lesson and sat in silence once had finished the source task within the lesson. This student would have benefited from an extension task at this point in the lesson. This student chose the evaluate question this was a challenge; this question was answered well however more detail could have been added.

All three of the students completed work at their ability or higher. The mid-range student challenged themselves by choosing to complete the higher order question. The lower ability student chose the question which they were expected to do so. The Higher ability student chose the higher order question too however completed this with more in-depth answering. The overall culture in the school which this study took place have an overall ethos where having a growth mind set is embedded. This could have been an influencing factor why these students chose to complete the task which suited their ability or pushed them with a challenge.

When the students were interviewed, they expressed that they all felt that the lesson went well and found the lesson interesting. The Students all expressed that the task had challenged them to various levels. The higher ability student fully engaged with all the material during the lesson that they had collected. Students 1 said that they had chosen the low order task because they knew that they could answer this question and wasn't sure if they could answer the mid-range question and defiantly didn't know if they could answer the higher order question. This indicated that the student is aware of their ability and chose to complete the task which they were able to complete. Both student 2 and 3 said that they chose to complete the higher order question because they wanted to push themselves. When the students were asked about whether they found the task interesting. The students said that they did find the task interesting to various degrees the higher ability student said that they enjoyed history and the topic of WW1. Student 3 expressed that they weren't a 'huge fan of history but found it interesting'

The students were asked what activities and tasks would they like to have done and what could be improved on. Student 1 suggested that research tasks could be completed on computers and that all the tasks during the lesson could have multiple levels to them so that students could access them from different abilities. Student 2 suggested that a drawing task, written task and research task could be added and more visual information for the power point would have been appropriate. Student 3 also suggested that a lesson which was tailored to all the students needs would work. These results suggest that the students engaged well with the idea that tasks should be varied for different abilities within the class and welcomed this type of activity in the class.

We learnt from this experience that if students are engaged with the idea of doing their best and wanting to challenge themselves, they will choose to complete tasks which match or stretch their ability. They also felt comfortable choosing these tasks as they have a strong understanding of their levels and are used to this type of classroom culture. This shows that this type of structure works in this type of situation.

Moving forward to the next lesson more use of emphasis on the different levels should be used and the introduction of a more visual task should be added to the levelled tasks.

During lesson study 2 an English lesson on the 'Boy in the striped Pyjamas' took place. Overall the class were settled and engaged with the lesson. The class gave a mixture of results when asked who had completed which task some students in the class indicated that they had chosen to complete the easier of the tasks. We don't have a reason why this is so however the school has a good culture of high achieving students but there is a definite difference in learning attitudes from that where the first lesson study took place. This was not

representative of the students who were chosen in the class for observational and interview purposes. The students chosen were all asked at the beginning of the lesson if they would mind staying at the end of the lesson to complete the interview section of the study. All three students consented.

The finding from the observational schedule showed that student A focused throughout the lesson. This student stayed quiet but focused through the lesson. While the teacher was talking and reading through the literature this student made lots of note and kept focused on the lesson. This student completed the green task which was the easier of the tasks but once they finished this task they moved to the next level of task and completed the orange task too. This student is a student with additional learning needs and their attainment level is low. However, they show that they want to push themselves in the tasks that they chose to complete. This student then completed the 3-star plenary task at the end of the lesson which was a higher ability task.

Student B is the mid-range student from this class. This student was a little bouncy when entering the lesson and at intervals during the lesson allowed his eyes to wander. This student however offered to answer the teacher's questions throughout the lesson and was keen to take part in the lesson. This student chose to complete the red task which was the more difficult task from the selection of differentiated tasks, they also chose the 4-star plenary task which was the higher order task from this selection.

Student C who was identified as the Higher ability student showed on task behaviour throughout the lesson. This student offered hands up to answer the teacher's questions at every opportunity. This student chose to complete the both the higher order tasks during the lesson and kept good focus during the tasks.

All 3 of the students who were observed during this lesson completed work at the level of their ability or higher with students pushing themselves. The over mindset of these students was positive. The lower ability chose the lower order task first however went in to complete the mid-range task too. The other two students both attempted to complete the higher order tasks. This shows that some students process a good growth mind set and had an overall ethos of pushing themselves however this wasn't the case for the whole class which indicates that not all students in the class are gaining the intrinsic rewards from pushing themselves in this class.

When the students were interviewed, they all said that they liked the tasks in the lesson and that they found the lesson fun. Students B and C said they enjoyed the written tasks and student A indicated that they liked the Drawing task however felt that they needed to challenge themselves more therefore this was the reason they completed the next level task.

The students were asked how they felt about the task and did it challenge them. Student A indicated that the Orange written task was more of a challenge but liked the green task because it was more fun, Student B said that they felt confident doing the task and that they might as well complete the more challenging task because they felt that they could do it. Student C chose the red task because they wanted to challenge themselves however said that they found this task was easy.

When the students were asked what tasks they preferred, they said that they would like more tasks which had a competitive nature which incorporated iPad or computer work. The lower ability student indicated that they liked to complete tasks which had less writing however they found writing diary entries good because they could express an opinion in these. The students said that they would continue to give different options in the lesson however had different tasks which catered for different ways that students could express themselves for example the diary entry. Also, the students suggested that rewards such as merits should be used within the class and to use competitive games at the end of the lesson.

This would suggest that these students felt that they needed extrinsic rewards to encourage them to complete the tasks to the best of their abilities and students. We learnt that students had the ability to push themselves if they found the value in doing so.

We found out that in the schools which these class studies took place in the students were aware of their ability and chose to complete the correct level of task for themselves. Students who believed that they could challenge themselves did indeed challenge themselves and completed higher order questions than what would have been expected of them. This idea is backed by one of the key ideas which Dweck believes when she talks about having a growth mindset and that is that those who believe that they can make improvements to their ability and are expandable want to challenge themselves and grow. (Trei, 2007) However there needs to be caution to this idea because not all students challenge themselves as was observed in the general culture in the second classroom study. This could be down to what Dweck identifies as a fixed mind set. Students who have this mindset struggle to engage with challenging themselves as they don't feel that this would achieve them anything more. (Dweck, 2020)

This research would indicate that students see the intrinsic rewards which would be gained from pushing themselves whereas other students need to receive an extrinsic reward in order to engage themselves in the higher order tasks or to push themselves further. This was seen in some of the student interview feedback when they said that they would like to receive more extrinsic rewards and be motivated by competitive behaviour in the classroom. Petty throws an air of caution to this way of thinking, he says 'one needs to be careful of overusing external rewards as this can interfere with the pupils own intrinsic motivation to learn' (2014) therefore as educational professional we need to keep this in mind and aim to work towards the goals with intrinsic values and building a growth mind set culture in the classroom would be a priority

This means that when planning lessons, it is worth including some level of choice for students as this promotes independence and works towards ambitious capable learners (Donaldson 2015) however also planning for developing a growth mind set within the class would benefit students to see their potential.

The students did also identify that more differentiation in the lessons could take place and this would help with build a more inclusive classroom and an area which the new curriculum intends to promote with its ideas of changing from key stages to progression steps. The Donaldson report states that '*There should be a duty on schools to provide a curriculum that enables most children and young people to reach, or go beyond, each Progression Step within the broad three-year window.*' (2015, p.56) this indicates that we need to be promoting a well differentiated classroom to cater for the needs of everyone with in it and in turn building well educated citizens for Wales.

In conclusion the data method collections were well structured however questions about the information the observer was gathering about each student could have been added to the top of the collection sheet to keep a focus and reduce observer bias. However, this was reduced because the observer did not have any pre-concepts of the students which they were observing.

When carrying out any lesson study's its worth considering the reactions which students may have with someone in the classroom observing them as this may affect the findings. This however was not an issue in the schools which both these lesson studies took place in because both schools have a good culture of classroom observations taking place on a regular basis, this minimised the observer affect.

The finding can be seen as limited because only a small sample of students from each class were chosen for interview purposes this meant that many other students in the classroom may have had other ideas and reasons why they choose the tasks which they did. Also, it

would have been interesting to interview students who did not choose to push and challenge themselves. Why did these students not push themselves and was there any other things which the teacher could have done to have encouraged these students?

The strengths to completing a lesson study as a research method are that these can be useful for improving practice within the classroom setting. Lesson studies have a wide backing from several academic and this method has gained in popularity within the education setting worldwide.

The Strengths which have come from the findings of this research are that students can choose an activity which will match their ability as long as they have the right mindset. Another strength of these findings are that by using these types of activities you are building a sense of intrinsic value as mentioned in the literature review. Patall, Cooper and Wynn (2010) show that by allowing students to make their own choice they gained a higher intrinsic motivation to complete the work and overall perform better on the tasks compared to when there was no choice given. This helps to build independent students which leads to 'ambitious, capable learners.'(Donaldson 2015)

The findings from this research are limited because it may not be possible to apply these strategies to all classroom as it will depend on the classroom and school culture. However, it has highlighted that if a growth mind set classroom culture can be achieve this would help to build independent students who gain from the intrinsic reward of doing their best and challenging themselves. Students can have the ability to pick task appropriately and giving students these options can build on other skills such as trust.

In my next school teaching experience, I will use a wider level of differentiation where possible, highlighting the importance of stretch tasks as well as providing lower ability differentiation. I will also promote independence and build in lessons which allow students some degree of choice and help to promote more growth mindset.

If I was to do the lesson again, I would add more challenge tasks to the lesson plan and plan for a more visual task for those students who would benefit from this style of task. This is would help to keep students engaged and build confidence in their ability to complete the tasks and challenge them more.

If I was to do more lesson studies, then I would suggest that they took place over more lessons and looked at a larger number of students within the class because this would give a better sample of findings and a more accurate picture of evidence.

The recommendation which I would give considering this research is that students can benefit from being given options within the classrooms. It allows students to build their own

sense of independence, promotes a culture where challenge is shown as a good thing and students learn to gain from the intrinsic values of achieving more. These values may need to be built into the lesson with promotion of a growth mind set.

This will help me move forward because I have become more aware of the needs of all students within my classroom from the lower ability students who need more scaffolding and differentiation to the More able and talented students who need more challenge and higher order questions within the lesson in order to continue pushing them.

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