

# ***A critical evaluation and the identification of next teaching and learning steps focusing on a case study of an individual learner or a group of learners, based on an observed critical incident.***

## **Introduction**

This essay will be looking at a critical incident and how that incident can inform future practice. This essay will look at the role that questioning takes within education; the overarching theme of questioning has been broken down into three subsections, assessment for learning (AFL), child autonomy and social constructivism. These three areas will be examined to see how they will impact upon education; because assessment for learning is such a broad category it has been divided into smaller sections such as wait time.

This essay has used a critical incident as the basis for the research and discussion as this incident has shown what education is like, from within the classroom and not just from a theoretical point of view. The critical incidents have all been collected (A1, A3, A4, A7) and the use of these incidents has been used because of their link to the new professional standards (Hwb, 2019). The link to these new standards is important to the overarching theme of this essay because it will inform the future practice of the observer and informs them of the best pedagogical techniques and approaches that they can use within their own teaching practice.

This essay will also be looking at the theory and other people's opinions of certain pedagogical techniques and will use these ideas and theories to suggest ways in which practice can be improved upon or ways in which certain techniques may not be appropriate for certain children.

## **Observation**

The school in which the critical incident was observed is a relatively small school in the district of Swansea with only "400 pupils on roll, including 48 part-time nursery pupils in 14 single-age classes and one mixed age class" (Estyn, 2017). The school received all 'Good' judgements in their last inspection by Estyn (2017) with very few recommendations to improve. In 2017 there was only 16% of the pupils in the school that were allocated free school meals which is slightly lower than the average in Wales which is 19% (Estyn, 2017).

The school in 2017 had 27% of children that were included on the additional learning needs register, (Estyn, 2017). The catchment area for this school gives them a mainly white and British backgrounds, with very few speaking Welsh or an additional language at home, (Estyn, 2017).

The class in which this critical incident was observed was a foundation phase, year one class that had both a teacher and also a teaching assistant. The class is comprised of 23 children that have a range of abilities. The class is usually grouped by ability when undertaking tasks and also lessons, they are shared between the teacher, teaching assistant and a group participating in continuous provision. The groups are usually no bigger than 8 children, but this does depend on what the task is, and how many children have a certain ability when it comes to the area that they are learning, some groups are bigger in certain areas like literacy and numeracy.

## **Methodology**

An observation is defined as “the recording of the observational responses of individuals” (Hartmann and Wood, 1990, p.107). While this definition of an observation seems to suggest that observing is simply watching and taking notes of the behaviour and the environment, Walker and Adelman (2005) suggests that just observing a lesson can cause “unease” and a “transitional state between student and teacher” (Walker and Adelman, 2005, p.10).

Observational learning has been used by many people, for example Piaget, within his use of observation

He systematically observed his own children and conducted observational studies that were complemented with interviewing to understand how children think and arrive at their conclusions (Papatheodorou and Luff, 2011, p.8).

This form of participant observation allowed Piaget to study his children closely and to get closer to his observations aims. This form of observation can be seen as unethical as he used his own children within his study.

This essay's observational model is that in which the conductor took a non-participant role, this is because the conductor was there to observe a variety of lessons and to learn how the classroom works, with the teacher modelling the learning and the children responding. While the conductor did take a non-participating stance on this observation, he did not limit them to taking notes at the back of the classroom but allowed them to engage with the children and also help with their learning, without teaching the lesson. This gave the conductor an

insight into how the children were learning and also allowed for them to look closely for any incidents in which could become a critical incident that would allow them to analyse the classroom environment at that time.

Some of the potential benefits of this form of observation are that the observer can survey the learning and pedagogical style that is taking place within the lesson while also remaining distant of the actual learning and teaching that is taking place. This allows the observer to gain perspective of the lesson without having any stakes that could persuade the outcome of the observation. A way in which this observational method could be improved is by videoing the lesson in question (Caldwell, 2005), this would allow the observer to look back on the lesson, for anything that they may have missed, one thing that may impact on this would be getting the permission from the school and the parents of the children to allow them to photograph or video the children, this can be denied by parents and thus end the chances of the lesson being filmed. All classroom observations have been recorded in the appendices, (A1, A3, A5, A7).

A potential limitation of this observation model is the Hawthorne effect (Roethlisberger and Dickson, 1939). This effect suggests that by observing people the outcome of their behaviour may be changed because they are aware that they are being observed. In this case the behaviour of the children may be changed because they do not want to misbehave or seem to be misbehaving in front of someone that is new to them. The teacher's behaviour may also change as they want to ensure that the lesson they are teaching is at a good standard and may change their pedagogical style in order to impress the observer (Jones, 1992).

While this essay used an observation, it is not looking at a full case study, it is looking at a critical incident; while there are some similarities between these two concepts there are some differences. A case study is defined as an "intensive study about a person, a group of people or a unit, which is aimed to generalize over several units" (Heale and Twycross, 2018, p.7). This compared to a critical incident, which is described as any act that has been observed that gives the observer enough to analyse turns from an incident into a critical incident, (Tripp, 2012), shows that while a critical incident can form part of a case study; it is not over a long enough period for it to be considered to be a case study. In this essay the focus will be on one critical incident, observed within one lesson within a classroom.

## **Four purposes**

The critical incident was observed within a school in which a lesson was taking place. The critical incident in question was focused on questioning, at the moment that the incident was observed the lesson that was taking place was an art lesson that also included, Welsh and Welsh culture. While the teacher was explaining what the children had to do for their lesson; they were required to make a poster with the word 'Croeso' and then draw images that are related to Welsh culture. The teacher then moved on to questioning the children on what they thought they could draw that related to Welsh culture, the subject of Aneurin Bevan was suggested by one of the students and the teacher then took this and asked another child if they knew who this was, approximately less than a second after answering the question to a child, the teacher answered their own question and then moved on to a different question (A1).

This was chosen as the critical incident because it relates to Donaldson's new curriculum in which he promotes "ambitious, capable learners who are ready to learn throughout their lives" (Donaldson, 2015, p.29). This critical incident relates to this specific purpose of the curriculum as the purpose is there to try and encourage children to prepare to learn constantly and throughout their lives and not just within an educational context. The purpose of the new curriculum is to ensure children are prepared to learn throughout their lives and for them to experience education that will enable them to have the skills ready for them to learn. With questioning being one of the main aspects of education and a good tool for all people to have in order for them to learn and query aspects of life that will allow them to educate themselves after formal education and into their adulthood.

This critical incident also relates to this purpose of the new curriculum as without an effective pedagogy and questioning techniques the children may be put off from education and not feel the gratification that they should from answering a question correctly, or even the positive impact that getting a question wrong and then receiving the correct information should allow them to feel.

This critical incident was also chosen because it relates to one of the four purposes of the new curriculum, but also because it has many parts of education that can be examined and looked into, to see how this would impact on a child's education and how education is being taught at the present moment. In the next section of this essay, the key areas of this critical incident will be broken down into three main areas and analysed to see how and why these areas can impact on a child's education and their experience of education, as a child and into their adulthood.

## **Literature Review**

The three main areas that this critical incident has been broken down into are; Assessment for learning (AFL), social constructivism and child autonomy. While these are the three main areas that this critical incident has been broken down into, some aspects will be explored further and different aspects of it are going to be explored.

Socrates in the fifth century placed importance of questioning into the limelight and “for him the final stage of education was liberation, when the pupil through questioning, finally rejected habit and prejudice” (Cited in Wragg and Brown, 2001, p.27). This indicates that since at least the fifth century an importance has been placed on questioning within education and it is still important within education today as seen in the new curriculum, (Donaldson, 2015). While this view has come from Socrates in the fifth century, the view is still valid today, the Views may be seen as outdated but seeing as this view has still been used recently in other literature indicates that other people still think that this is a pivotal aspect of education.

The first area that this essay will look at is the assessment for learning (AFL) aspect of the critical incident. This area has been broken down further into the different techniques associated with questioning and the wait time that the teacher allows the children to have.

“Studies about teacher questioning over the years have revealed that teachers mainly ask recall or social and managerial questions” (Clarke, 2005, p.53). This is one of the techniques that teachers use to understand the children’s knowledge. This use of recall questions is seen to be a problem with some people as this is not testing the children’s understanding of the subject but only their ability to remember certain facts, (Luna and Martin-Luengo, 2011). While this may seem as a criticism of recall questions, there are some situations where recall questions are necessary, but as suggested by Clarke (2005), teachers should use a range of questions and not just recall questions.

Alvarado and Herr (2003) suggest that teachers should be using leading questions that allow them to develop children’s knowledge and allow the teacher to expand on the learning depending on the answers the children have given. This technique would allow children to access different aspects of knowledge from the teacher and to expand their understanding more than they would if the teacher only asked recall questions. This form of questioning allows the teacher to employ more AFL and assess how the children’s knowledge is developing.

Another aspect of AFL and questioning that can impact on a child's understanding and learning is the amount of time the teacher waits before answering an unanswered question. This wait time can impact on a child understanding because Rowe (1974) cited in Clarke (2005) has suggested that teachers only leave one second "before answering an unanswered question" (Clarke, 2005, p.53). This wait time allows children to think about the answers that they think is correct and also allow them to answer the question themselves instead of the teacher answering the question. This wait time and individual thinking time (ITT) is crucial to children's learning because without thinking time children are more likely to not answer if they are not given time to think about the answer, and allows them to not rely on the teacher to answer their own question; if children are used to the teacher answering their own question they are more likely to not answer and then rely on the teacher to answer the question. If the teacher is answering the question themselves there is no way for the teacher to know if the children are gaining knowledge, without questioning in this context the assessment for learning is not going to work and there is no way to test their knowledge without some form of summative assessment.

The next area that this critical incident has been broken down into social constructivism, social constructivism is the theory that social interaction and people learn more when in a social setting and when interacting with other people. Social constructivism is closely linked to Vygotsky, Bruner and Bandura's social cognitive theory (Shunk, 2000). Social constructivism is linked to this critical incident as questioning is highly social and requires interaction between the teacher and child at least, and within this incident it was within a group context that the questions were being asked. The social constructivism theory suggests that children learn more within a social context, (Vygotsky, 1978 and Vygotsky, 1986).

It has been suggested that social constructivism is one of the key areas in which children learn, the social interaction is key for them to learn and the social interaction allows them to develop more than what they would if they were learning alone, (Amineh and Asl, 2015). This is because the social interaction allows children and adults to question each other and also their learning. The use of questions can be crucial for learning as children and adults can use the other people in the social context to gain further knowledge or even to learn something completely new that others know and that they do not. While this theory is somewhat old and could be seen as outdated with the new pedagogical techniques being used in classrooms today, there are many things that still relate to the way in which we teach

today; in modern teaching there is more of an emphasis on collaborative teaching and no longer uses a didactic approach to education.

Social constructivism is something that should be considered when planning for lessons and also when teaching lessons, especially when considering formative and summative assessments. Assessments are usually considered to lack social interactions, especially summative assessments, where the children are required to work alone on the knowledge they have accumulated over a period of time. This form of assessment without the use of social constructivist theory can be considered to be a less effective way of assessing children as they have limited opportunities to interact and improve upon their knowledge, (Shay, 2008). With social interaction children are more likely to develop their knowledge, improving their overall outcomes of the summative assessment.

As Cole (1992) suggests there is a direct correlation between social constructivism and assessment, the link is that while social constructivism places an importance on social interaction and the benefits of this on a child's education; the current summative assessment means that not all children are able to cope with the isolation that comes with summative assessments. With the introduction of formative assessment and the continued use of this form of assessment, it ensures that children who find it easier to work and share their answers in a social environment show how much they have learnt. This means that children who are thought of as 'not testing well' are now able to show that they know the information that they are being tested on, but without the constraints of formal summative assessments.

The final area that this critical incident has been broken down into is child autonomy, child autonomy is described as "children as agents" (Sutterluy and Tisdall, 2019, p.183), this is when a child will have some control over their learning, and they are responsible for how they learn. This links well with the critical incident for this essay as with questioning a child is able to control how they learn; by choosing whether to take an active role in their learning, such as answering the question or asking a question, or taking a passive approach to learning by listening to the answers given by other children.

It is suggested that primary schools in Britain are using a child centred and child autonomous approach to education within a mainstream and constant use within primary schools, schools are still seeing children as dependent on the teacher for their learning. (Ingram and Worrall, 1987). While this is an old article that depicts an education system that is didactic and teacher centred, this still may be the case within some primary schools. Ingram and

Worrall suggest that an education system that allows child autonomy will create more capable learners and children that are more determined to succeed in education as it allows them to invest their own ideas and potentially enjoy and engage with education on a more personal level; if children are allowed to engage with education by having some control over how and what they learn, children are seen to be more proactive and happy with their education; by having children decide on their learning or even having some control over the pedagogical techniques that the teacher uses it can influence all of these factors.

## **Reflection/ Evaluation & Next Steps**

In this section of the essay, examples of how teachers can improve upon their questioning techniques will be given, while these are suggestions on how questioning can be improved for the learner, they are in no way a criticism of the teacher within the critical incident. Clarke (2005) has suggested many ways in which questioning can be improved in classrooms.

From this observation, it seems clear that some teachers are unaware that they are not leaving enough time for the children to think about an answer before the teacher answers the question themselves. To improve upon this Clarke (2005) suggests that the recommended wait time for an unanswered question is five seconds. This wait time of an average of five seconds will allow the children enough time to think of the appropriate response and then potentially offer this to the teacher. While this may seem easy enough for the teachers to implement into their questioning technique, there are sometimes when this may not be achievable; for example, if the lesson is running behind or if there is a large amount of questions for the teacher to ask within the lesson. This wait time of five seconds may be difficult for the teachers as they may be eager to move on to the next step of the lesson, in order to give the children enough time for the task they are about to be set.

Another technique that the teacher can use in order to give the children enough time to think of an answer is to use talking partners, this is when a child will talk to another child for thirty seconds in order to corroborate their answers for them to try and think of the correct response to what the teacher has asked them. It is suggested that allowing children to use talking partners within a lesson allows them “to think, articulate and therefore to extend their learning” (Clarke, 2005, p55). The use of talking partners seems to be a way in which children can improve upon their learning whilst also assessing themselves and their peers. While this technique may increase a child’s ability to answer a question, it may be time consuming if used as the main technique for questioning by the teacher. Allowing children to

talk for thirty seconds at a time will take up a considerable amount of time within a lesson if there are a lot of questions that the teacher needs to ask. Another problem that this may lead to within a classroom is that some children may take advantage of the talking stage and may go off topic and talk about something other than the question; the teacher will need to take this into consideration when choosing this questioning technique.

While there is no quick fix when it comes to effective questioning techniques and all of them seem to have advantages and disadvantages, there are some techniques that I will use to inform my own professional and personal development, by using a variety of these techniques and using them when appropriate, I think that this will allow children to get the benefits of questioning whilst also making the lessons varied and engaging.

Within this observation of a critical incident, there has been opportunities for reflections of the observations, the use of ARC models has been used to identify how the observer was feeling, the benefits and disadvantages of the observation and also how this will inform my practice in the future, (A2, A4, A6, A8). This reflection was key to the success of the observation as it allowed the observer to connect with the incidents and also to reflect on how these things will be taken into account when taking part in their own practice in the future.

## **Conclusion**

This essay has looked at the different ways that questioning techniques can impact on a child's education. To summarise, questioning is related to many aspects of education, assessment for learning, social constructivism and child autonomy. This relationship between the three aspects of questioning can decide whether or not a child is engaged with education.

The approach taken by this essay has allowed it to look at the real-world context of teaching and how the pedagogical techniques that are being used are having a positive and negative approach to education. By observing multiple lessons within school, the observer has had the chance to look at how different teachers use these pedagogical techniques with different children, in different classes and even in different key stages. This has allowed for some context when looking at the lessons and the ability for the observer to understand that different techniques need to be used for different children.

From these observations and the analysis of the incidents observed in the classroom, the observer has been given the option to look at how this will inform their own practice in the

future. This is important for the observer as it has given them the opportunity to learn effective practice and to see how these pedagogical techniques can help them relate to the new professional standards for teaching and leadership (Hwb, 2019). This will greatly impact on their teaching in the future as it will indicate what is expected of them while they are teaching. This use of the Professional standards and the information about pedagogy and other things observed within the lessons (A1, A3, A5, A7) will allow them to potentially become better teachers and deliver better lessons to the children they are teaching.

## Appendices

### Appendix One (A1)



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#### OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date: 25/09/19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>Lesson details: 43/4</p> <p>Task: To design a poster that shows Wales, like a tourist poster that has the word "Croeso" and then the children had to draw things that remind them of Wales and Welsh things</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Classroom culture</p> <p>(Are the students focused on learning?)</p> <p>Some children were happy with the lesson and go to work straight away, but some were more hesitant. Eventually all children were engaged in the activity and worked well</p>                                                                                                                                                                                                                                                                                                                                                             |
| <p>Objectives</p> <p>(Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?)</p> <p>Clear purpose to the lesson, it was explained by the teacher and the children were asked questions to ensure they knew what to do.</p>                                                                                                                                                                                                                                                                                                                                                     |
| <p>Direction</p> <p>(Are the students clear about what they are doing and how to do it well?)</p> <p>After the initial explanation the teacher asked them questions to ensure they understood. Some were confused when starting the task, but after a few more questions to the teacher they understood and took part in the task.</p>                                                                                                                                                                                                                                                                              |
| <p>Access and challenge</p> <p>(Are all students able to engage in the lesson? Are all students challenged?)</p> <p>All the children were engaged in the lesson, some were hesitant at first, but once they started they were happy to engage. Some of the students were challenged because of the art.</p>                                                                                                                                                                                                                                                                                                         |
| <p>Assessment</p> <p>How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching?</p> <p>A lot of questioning was used to gain an understanding of the children's understanding, but little to no wait time was given.</p>                                                                                                                                                                                                                                                                                                                            |
| <p>Specifics / Critical Incidents</p> <p>Are there particular telling moments and examples which it would be helpful to discuss?</p> <ul style="list-style-type: none"> <li>- iPads were used (DoF) - music was played when they were undertaking the task.</li> <li>- Children that were well behaved were sent on messages etc. (conditioning, behaviourism, positive reinforcement)</li> <li>- Dojo points (conditioning, behaviourism, positive reinforcement)</li> <li>- Questioning (what techniques, wait-time, child autonomy, AFL, social constructivism)</li> </ul> <p>ITT - individual thinking time</p> |

## Appendix Two (A2)

### Model Beirniad Wedi Adfyfyrio (BWA) Assisted Reflective Conclusions (ARC) Model

Dyddiad/Date: 25/09/19

Digwyddiad critigol (Ffocws)/Critical incident (focus):

| Profiad/ Experience                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Teimladau/<br/>Feelings</p> <p>Beth yw eich teimladau ynghylch y profiad?<br/>"What are your feelings regarding the experience?"</p>                                                                                                                                                                                                                                  | <p>Started nervously as it is a new school, teachers and children.<br/>After a while, started to get into the swing of the school and started to notice certain techniques and incidents within the classroom.</p>                   |
| <p>Cofio a Deall/<br/>Remember and Understand</p> <p>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?<br/>"Can you list the aspects of the learning experience that went well?"</p> <p>Pa elfennau o'r profiad dysgu oedd yn siomedig?<br/>"What were the elements of the learning experience that were disappointing?"</p>                                | <p>The lesson overall went well as the children engaged with the lesson and also enjoyed their task.</p> <p>Some of the questioning techniques were unconventional and could be refined to allow more answers from the children.</p> |
| <p>Gwerthuso a dadansoddi/<br/>Evaluate and analyse</p> <p>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?<br/>"What will you keep the same to ensure effective teaching and learning in the future?"</p> <p>Beth oedd achos yr elfen siomedig bwysicaf?<br/>"What was the cause of the most important disappointing element?"</p> | <p>Having a fun and engaging lesson that the children enjoy whilst also allowing them to learn.</p> <p>The questioning was the most disappointing but there are many factors that could influence this</p>                           |
| <p>Casgliadau a chymau<br/>gweithredu/<br/>Conclusions and actions</p> <p>Beth yw eich atebion posibl i'r materion siomedig a nodwyd?<br/>"What are your possible solutions to the disappointing issues identified?"</p> <p>Beth ydych yn mynd i'w wneud nesaf?<br/>"What will you do next?"</p>                                                                         | <p>look at different techniques and discover what works best for this particular class.</p> <p>continue to observe and look into any different forms of questioning that is used.</p>                                                |
| Y profiad newydd / Transformed experience                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                      |

## Appendix Three (A3)



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### OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

|                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date: 28/09/19                                                                                                                                                                                                                                                                                                                                                 |
| Lesson details: Some children were focusing on Mathematics, doubling numbers. Some children were Making Slime and Some children were Learning to Programme a robot.                                                                                                                                                                                            |
| Classroom culture<br>(Are the students focused on learning?) The children that were making the slime and working on the robot were focused, but those doing maths were distracted and waiting for their turn with the Slime and robot.                                                                                                                         |
| Objectives<br>(Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) As there was three different activities there were three aims to the lesson, but it was mainly a STEM lesson. The aim of the lesson was to introduce the children to concepts that they were going to use in different lessons                      |
| Direction<br>(Are the students clear about what they are doing and how to do it well?) The individual lessons were explained by the person taking that lesson and all children seemed to grasp what they were required to do and how they could succeed                                                                                                        |
| Access and challenge<br>(Are all students able to engage in the lesson? Are all students challenged?) The children doing the Maths and robot work were challenged but those doing the Slime were not challenged they were mainly having fun and learning without realising.                                                                                    |
| Assessment<br>How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching? Books on the numeracy were marked, while pictures were taken to show the children created Slime. Videos of the children programming the robot were taken                                                              |
| Specifics / Critical Incidents<br>Are there particular telling moments and examples which it would be helpful to discuss?<br>Technology was used (Dcf)<br>STEM lessons (Maths, technology and Science)<br>Questioning (ensure the children knew what to do)<br>classroom management<br>Behaviour management (some children were distracted by the other tasks) |

## Appendix Four (A4)

### Model Beirniad Wedi Adfyfyrio (BWA) Assisted Reflective Conclusions (ARC) Model

Dyddiad/Date: 26/09/19

Digwyddiad critigol (Ffocws)/Critical incident (focus):

| Profiad/ Experience                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Teimladau/<br/>Feelings</p> <p>Beth yw eich teimladau ynghylch y profiad?<br/>"What are your feelings regarding the experience?"</p>                                                                                                                                                                                                                                  | <p>More confident than the day before.<br/>Excited to see different techniques being used (Parallel teaching)</p>                                                                                                                                            |
| <p>Cofio a Deall/<br/>Remember and Understand</p> <p>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?<br/>"Can you list the aspects of the learning experience that went well?"</p> <p>Pa elfennau o'r profiad dysgu oedd yn siomedig?<br/>"What were the elements of the learning experience that were disappointing?"</p>                                | <p>Most of the children were excited about their tasks and were looking forward to the slime and robot parts of the lesson</p> <p>Some children were distracted when doing the maths and were too excited to concentrate fully.</p>                          |
| <p>Gwerthuso a dadansoddi/<br/>Evaluate and analyse</p> <p>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?<br/>"What will you keep the same to ensure effective teaching and learning in the future?"</p> <p>Beth oedd achos yr elfen siomedig bwysicaf?<br/>"What was the cause of the most important disappointing element?"</p> | <p>The lessons were fun and engaging, keeping the STEM theme is a good idea while also making it something the children enjoy.</p> <p>The fact that the children didn't seem interested in learning claybling and waited to move to the slime and robot.</p> |
| <p>Casgliadau a chymau<br/>gweithredu/<br/>Conclusions and actions</p> <p>Beth yw eich atebion posibl i'r materion siomedig a nodwyd?<br/>"What are your possible solutions to the disappointing issues identified?"</p> <p>Beth ydych yn mynd i'w wneud nesaf?<br/>"What will you do next?"</p>                                                                         | <p>More emphasis on the maths and clear instruction that when the maths was done they could move onto the robot and slime.</p> <p>try to implement the fun STEM lesson into my own teaching whilst also demonstrating the importance of maths.</p>           |
| Y profiad newydd/ Transformed experience                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                              |

## Appendix Five (A5)



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### OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

|                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date: 02/10/19                                                                                                                                                                                                                                                                                                  |
| <b>Lesson details:</b><br><del>Read, write Ink.</del> Children were taken out of the classroom to a cornered off part of the yard and practiced letter formation with chalk on the floor                                                                                                                        |
| <b>Classroom culture</b><br>(Are the students focused on learning?)<br>The children were focused. They enjoyed getting out of the classroom and enjoyed writing on the floor with the chalk. They engaged fully with the lesson                                                                                 |
| <b>Objectives</b><br>(Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?)<br>Yes. The lesson was clearly laid out and the activities were directly related to the sessions objectives.                                                                                  |
| <b>Direction</b><br>(Are the students clear about what they are doing and how to do it well?)<br>The children were guided throughout the task and if they made a mistake the teacher would show them how to correct it and they would try again.                                                                |
| <b>Access and challenge</b><br>(Are all students able to engage in the lesson? Are all students challenged?)<br>The session was set out into ability groups so the task was directly aimed at them.                                                                                                             |
| <b>Assessment</b><br>How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching?<br>The teacher was constantly checking their work, praising and <del>then</del> also rectifying any mistakes they made.                                         |
| <b>Specifics / Critical Incidents</b><br>Are there particular telling moments and examples which it would be helpful to discuss?<br>Positive reinforcement<br>AFL<br>Group work<br>Peer Assessment (All children would help those who made mistakes and would help the teacher show where others made mistakes) |

## Appendix Six (A6)

### Model Beirniad Wedi Adfyfyrio (BWA) Assisted Reflective Conclusions (ARC) Model

Dyddiad/Date: 02/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus):

| Profiad/ Experience                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Teimladau/ Feelings</b><br/>Beth yw eich teimladau ynghylch y profiad?<br/>"What are your feelings regarding the experience?"</p>                                                                                                                                                                                                                                    | <p>At the beginning of the session I was excited to see Read Write Ink being taught as my only other experience was as a Pupil.<br/>The session was great as an observation.</p>                                                                                                                    |
| <p><b>Cofio a Deall/ Remember and Understand</b><br/>Allwch chi restru'r agweddau ar y profiad dysgu a oeth yn dda?<br/>"Can you list the aspects of the learning experience that went well?"<br/><br/>Pa elfennau o'r profiad dysgu oedd yn siomedig?<br/>"What were the elements of the learning experience that were disappointing?"</p>                                | <p>The children were very engaged in the task and enjoyed writing on the ground with the chalk. They also seemed happy to be learning letter formation.<br/><br/>The children finished the letters too quickly and then had to take instructions from the teacher on which letters to practice.</p> |
| <p><b>Gwerthuso a dadansoddi/ Evaluate and analyse</b><br/>Beth fyddwch chi'n codw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?<br/>"What will you keep the same to ensure effective teaching and learning in the future?"<br/><br/>Beth oedd achos yr elfen siomedig bwysicaf?<br/>"What was the cause of the most important disappointing element?"</p> | <p>The lesson that was given was fun and engaging, this could be kept the same as the children enjoyed it.<br/><br/>The only disappointing element was that the children finished too quickly.</p>                                                                                                  |
| <p><b>Casgliadau a chymau gweithredu/ Conclusions and actions</b><br/>Beth yw eich atebion posibl i'r materion siomedig a nodwyd?<br/>"What are your possible solutions to the disappointing issues identified?"<br/><br/>Beth ydych yn mynd i'w wneud nesaf?<br/>"What will you do next?"</p>                                                                             | <p>Next time, have more cards that showed the letters to ensure they don't run out so the children can keep working for the allotted time.<br/><br/>Next I will continue to observe to see if the teacher will rectify the mistakes.</p>                                                            |
| Y profiad newydd / Transformed experience                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                     |

## Appendix Seven (A7)



Prifysgol Cymru  
Y Drindod Dewi Sant  
University of Wales  
Trinity Saint David

Yr Athrofa  
Addysg a'r Dyniaethau  
Education and Humanities

### OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

|                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date: 02/10/19 (Afternoon)                                                                                                                                                                                                                                              |
| Lesson details: children were set the task of designing a machine that they would build to make a marble move from one place to another.                                                                                                                                |
| Classroom culture<br>(Are the students focused on learning?)<br>The children started the lesson focused because the task was given to them while they sat on the carpet but then they were distracted and sometimes off topic when designing.                           |
| Objectives<br>(Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) The lesson has a STEM purpose while also focusing on the class topic of journeys they are designing, engineering, using technology.                          |
| Direction<br>(Are the students clear about what they are doing and how to do it well?)<br>The lesson was explained to the children when they were sat on the carpet. The lesson was also written on the board so they could refer back to it.                           |
| Access and challenge<br>(Are all students able to engage in the lesson? Are all students challenged?)<br>All the students engaged with the lesson and all students seemed to be challenged the right amount by the lesson.                                              |
| Assessment<br>How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching?<br>The teacher looked over their work and either made suggestions for them to improve or asked them to finalise their designs. |
| Specifics / Critical Incidents<br>Are there particular telling moments and examples which it would be helpful to discuss?<br>Child/Pupil autonomy<br>Vygotsky's ZPD<br>carpet time<br>STEM lessons<br>AFL (Lack of)<br>classroom management                             |

## Appendix Eight (A8)

### Model Beirniad Wedi Adfyfyrio (BWA) Assisted Reflective Conclusions (ARC) Model

Dyddiad/Date: 02/10/19 (Afternoon)

Digwyddiad critigol (Ffocws)/Critical incident (focus):

| Profiad/ Experience                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Teimladau/<br/>Feelings<br/>Beth yw eich teimladau ynghylch y profiad?<br/>"What are your feelings regarding the experience?"</p>                                                                                                                                                                                                                                  | <p>At the beginning of the lesson I was excited to watch a STEM lesson.</p>                                                                                                                                                         |
| <p>Cofio a Deall/<br/>Remember and Understand<br/>Allwch chi restru'r agweddau ar y profiad dysgu a oeth yn dda?<br/>"Can you list the aspects of the learning experience that went well?"</p> <p>Pa elfennau o'r profiad dysgu oedd yn siomedig?<br/>"What were the elements of the learning experience that were disappointing?"</p>                                | <p>Children seemed to enjoy their lesson and were very interested in the task they were set</p> <p>Children got very loud and sometimes distracted at the end of the lesson.</p>                                                    |
| <p>Gwerthuso a dadansoddi/<br/>Evaluate and analyse<br/>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?<br/>"What will you keep the same to ensure effective teaching and learning in the future?"</p> <p>Beth oedd achos yr elfen siomedig bwysigaf?<br/>"What was the cause of the most important disappointing element?"</p> | <p>The lesson was very interesting and it can be adapted to fit with other topics. That is the one thing that can be kept the same.</p> <p>The cause of the problems is the fact that the children got distracted and off task.</p> |
| <p>Casgliadau a chamau gweithredu/<br/>Conclusions and actions<br/>Beth yw eich atebion posibl i'r materion siomedig a nodwyd?<br/>"What are your possible solutions to the disappointing issues identified?"</p> <p>Beth ydych yn mynd i'w wneud nesaf?<br/>"What will you do next?"</p>                                                                             | <p>I think using different classroom management techniques. Also using smaller groups to try and limit off topic talking.</p> <p>Try and use these lessons and techniques within my teaching.</p>                                   |
| Y profiad newydd / Transformed experience                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                     |

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