

Level 6 Assessment

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

Incidents and events frequently occur in routine professional practice within school environments. An obvious example is that of a student raising their hand in class for permission to borrow a piece of equipment. This instance may be observed several times within a lesson, and we can label these 'typical incidents' as they appear straightforward and generally go unnoticed (Tripp, 1993). Confusion can often arise between these so called 'typical incidents' and the main theme within this study, critical incidents. Put simply, critical incidents are everyday incidents or phenomenon's in school settings, yet they are explained in a wider context and created through critical analysis. They are created by someone who has perhaps questioned or tried to understand the underlying reasons for its occurrence (Tripp, 1993). Their purpose includes promoting reflection in teaching practice and understanding the diverse learning community we may encounter (Pui-lan et al., 2005). This study will therefore focus on a critical incident identified through a case study of a group of learners carried out at Primary School C. It will discuss all information relating to the observation methods adopted for the study, the school context in which it took place, and a clear description of the incident in class. A literature review will then focus on Collaborative Learning and More Knowledgeable Other (MKO) as theories and areas of research which will provide context and connection to the specific event. Upon reflection of this critical incident, this essay will subsequently suggest the next steps to meet the diverse needs of all learners and assist professional and personal development.

Observation

School and Class Context

Primary School C is an English Medium school which joined with a nearby nursery school in 2016. There are over 450 pupils aged 3-11, ranging from part-time children in nursery up to Key Stage 2 at year 6. The most recent inspection by Estyn was carried out in November 2017 in which they impressively described the school as 'delivering exciting learning experiences

that engage pupils successfully and enrich their lives' (Estyn, 2017, p.4). Primary School C is a pioneer school. This involves working closely with the Welsh Government to adopt developments proposed by Donaldson, (2015) relating to the Welsh National curriculum. It also involves working with other schools within a network to focus on professional learning. Some important information on the school includes 36% of children are on free school meals, and 31% of pupils have additional learning needs (ALN), both above the national average (Estyn, 2017). Observations for this research took place within a year 6 class of 30 pupils. This case study approach was used to gain an in-depth experience of an event or phenomenon in a natural teaching and learning context (Crowe et al., 2011). The class had one teacher who had many years of experience, and one teaching assistant who worked with a number of children with ALN. Specifics of ALN children were not discussed. Resources and facilities in the class varied from whiteboards, sofas, laptops, ipads, TV's and a range of books.

Methodology

For the purpose of understanding the case, and more specifically, making sense of an incident in the classroom, qualitative observations were used as the research methodology (Crowe et al., 2011). Observations have many uses both in and outside of the school environment, and Estyn, (2014), who are responsible for inspecting standards in education, offered one of the main uses as: developing an understanding of pupils' learning through rich first-hand experiences. Perhaps more suiting to the proposed new school curriculum, The Welsh Assembly Government, (2008) explained a purpose of observations is to determine where children are on the learning continuum to help them progress. However, there are some issues with this method, including that they are like 'camera shots', and we may have tendencies to make judgements based on a single experience (Sharman et al., 2007). Another potential downfall is failing to maximise the use of the information observed or not reporting it effectively (Morgan, Pullon, & McKinlay, 2015; O'Cathain, Murphy, & Nicholl, 2008). These limitations are entirely possible due to the limited time available at Primary School C, however observations were still chosen as the most effective course of action.

To achieve the study's purpose of identifying a critical incident, the observations were intended to be carried out through non-participant means. Alike the study of Antoniou and James, (2014), this would allow for important note-taking and the completion of record sheets within the environment itself. The record sheet used was adapted from the work of Fletcher-Wood, (2016) and can be found within the appendices (Appendix B,D,F,H). The rationale for using this method was to capture detailed descriptions of incidents and information observed so that further analysis could take place in the process of developing a critical incident (Jesson et al., 2018). Despite intending to be a non-participant researcher, an initial discussion with the class

teacher encouraged the use of 'target children' as a secondary strategy, and this prompted a different role. The rationale for using this method was that these pupils were likely to contribute to interesting events, and thus being in their presence would help to discover elements of their behaviour, and interactions (Sharman et al., 2007). Adopting this method also caused unplanned communication and questioning between pupil and researcher which was simply unavoidable (Freeman and Hall, 2012). Therefore, the data collection was performed through participant observations. This did allow for the attainment of a natural classroom setting and allowed the researcher to freely search for incidents and events that appear meaningful (Adler and Adler, 1994).

The research conducted was an example of a single case-study design as a limited amount of time was spent in Primary School C. A limitation of a single-case study is that a multiple-case study provides greater confidence in findings, in the sense that you have more sources so you can triangulate your evidence (Morgan et al., 2015). However, both Yin (1994) and Ridder, (2017) explained that this method is useful to answer "how" or "why" questions, such as "the reason an incident just occurred in the classroom?" Gomm et al. (2000) explained a single case-study is useful for creating, extending or testing a theory, therefore, this was used to unpick deeper causes of a typical incident (Fiss 2009). Before trying to create this critical incident, it was important to note the words of Tripp (1993), in the essence that they are generally straightforward events that occur in teaching practice. They only become critical when analysed further to reveal underlying meanings and motives. A complexity arises here as this involves breaking an incident down into different components to better understand its occurrence (Tripp, 1993). Based on this analysis, a teacher then may reflect and change an aspect of their practice, which may vary in in terms of actually improving practice (Vachon and LeBlanc, 2011). However, in some instances, the meaning of an incident being explored can develop a totally different perspective on something, and so this form of reflection was deemed useful to identify next teaching and learning steps (Boyd and Fales 1983). The next section will describe the incident that was identified and therefore developed from the classroom environment at Primary School C.

Critical incident linked to Donaldson's Four Purposes

Observation notes on this specific critical incident can be found in the appendices section as Appendix C.

Observations took place within a year 6 Maths class containing 27 pupils, 1 teacher and 1 teaching assistant. To provide a brief background to the lesson, this was a follow-up lesson on the topic of: "solving expressions and times-tables practice" which the pupils had started

the same morning. Reminding you back to the fact that Primary School C is a pioneer school, they are currently in the process of implementing recommendations provided by Donaldson, (2015) in *Successful Futures*. Furthermore, providing some context for why students were learning these topics, the draft curriculum for Maths and Numeracy states that students should demonstrate understanding of multiplication tables, and also recognise numerical expressions that describe the same situation (Education Wales, 2019). The group were split into three groups using their regular carousel method: one group was teacher led and worked on solving expressions, while the remaining two groups worked independently on times-tables practice, and online Mathletics tasks. Engagement was generally good, however an incident emerged in the times-tables group relating to task difficulty and challenge for a certain pupil (Pupil C). Already aware that this child had a speech and language impairment (ALN), he was finding it difficult to complete his times-tables grid and recognise different patterns. With regard to Donaldson's (2015) four purposes of the new Welsh Curriculum, this activity was not developing an "ambitious capable learner", reason being he was not enjoying the challenge as it was simply too difficult. He was unable to question and solve problems as there was no teacher present to facilitate this. At first this appeared potentially damaging for Pupil C, but as the situation unfolded, a second pupil (Pupil A) offered two forms of help: 1) using fingers to count up, and 2) visually showing Pupil C patterns within the grid. Subsequently, Pupil C was able to complete the task. The effect this had on the pupil was clearly positive, and in terms of developing an "ambitious, capable learner" it built upon his body of knowledge, and with help he enjoyed solving this problem (Donaldson, 2015). Maths and Numeracy within the new curriculum is designed to develop a mindset of not being afraid of new or complex problems (Hwb.gov.wales, 2019). However, you could argue that for a moment this pupil experienced difficulty and discomfort. This pupil could approach similar tasks with hesitation considering the struggle he experienced before receiving help. Also, was this the best form of help for Pupil C in the sense that he could then explain the ideas he was learning about (Donaldson, 2015). Many limitations could be highlighted, however, another perspective would highlight that Pupil C had formed positive relationships in class from this collaborative learning style. Pupil A had the respect for Pupil C to the point she wanted to assist him in overcoming challenges. She developed his confidence as a result, and he may approach future tasks with determination and an approach goal attitude of striving to learn (Hattie, 2012). This incident and learning experience has ultimately contributed to developing "healthy, confident individuals" (Donaldson, 2015). The next section will review the areas of Collaborative Learning and More Knowledgeable Other (MKO) which will provide context and connection to the specific event.

Literature Review

Collaborative Learning

The history of education and learning was once dominated by behaviourism, an approach strongly influenced by the work of Ivan Pavlov and John Watson, which simply involved repetition, drill, and testing memory for students (Crowley, 2017; Gray and Mcblain, 2015). This was until the approach was criticised heavily by the work of Jean Piaget, a man that favoured discovery learning which gathered increasing interest by researchers and educators in the 1960's. This type of learning transformed the teacher's role as more of a "facilitator", where the classroom environment went under drastic change encouraging small group work (Gray and Mcblain, 2015). This style of learning could be labelled as "collaborative learning" and can be described as all members working on the same task at a certain point in time, sharing cognitive responsibility to address the problem (Palincsar and Herrenkohl, 2002).

In early research, Piaget (1952), explained that small groups encourage peer collaboration, and nurtures intellectual development. The loopholes of the behaviourist approach are addressed here as pupils gain more understanding rather than simply repeating. Piaget favours this collaborative style of learning for many reasons: peers can become role models for others, assisting them with new skills; a more knowledgeable pupil (MKO) can explain tasks in simple terms to a peer needing help; and finally, a shared learning experience allows a deeper insight into a topic for all pupils (Gray and McBlain, 2015). This collaborative learning environment is evident at Primary School C, and interestingly the classroom setup was the cause of the critical incident arising. It is difficult to say whether this collaborative style allowed a deeper insight for these pupils, as there wasn't a chance to compare this to other approaches. However, this theory of MKO will be importantly discussed due to its direct relation to the incident. Slavin, Hurley and Chamberlain (2003) echoed some of the early work of Piaget (1952). They explained that collaborative learning teaches pupils to care for their group, so efforts increase as a result. They also expanded on this idea of more able pupils being able to progress others through certain difficulties. Moreover, these more able students learn through helping and offering clarification and thus the whole group experiences benefits. At Primary School C, it wasn't obvious that pupils cared for their entire learning group, instead connections seemed more evident in pairs. Bills and Howard (2019) conducted a school case-study and specifically focused on the deliberate teaching design of collaborative learning. Findings again appeared similar with connections made to a deeper insight and increased pupil understanding. Leaders interviewed within this study explained: "pupils see a purpose for what they are doing, as a group they are able to view topics from different perspectives

and combine their capabilities to create a rich learning experience". Providing valuable theoretical links to the observed incident at Primary School C is interesting. The benefits that Pupil C experienced were unquestionably positive and this was certainly down to combining capabilities. However, it wasn't so obvious as to what type of experience the rest of the group had in terms of learning. Views on this approach are not always in favour. Tolmie et al., (2010) examined collaborative learning in primary schools and explained that for achievement to take place, the approach may require a pre-condition of positive social-relations. Without this, disagreements and different viewpoints are likely to hinder pupils from offering and explaining ideas to one another (Tolmie et al., 2010). At a young primary school age, these disagreements are likely to prevent further collaboration and lead to further dislike. If this is the result, it totally opposes Piaget's (1952) claim that a shared learning experience allows a deeper insight for pupils. At Primary School C the class teacher was often restricted by which pupils could work effectively together, and this was based on relationships. Consequently, the same pupils tend to be grouped together each time which becomes a constant difficulty for teachers. Proctor et al., (2005) highlighted a potential limitation relating to MKO's helping other learners. They stated that within this approach, there must be opportunities for individual pupils to contribute at a level which is specific to their skill and understanding. They shouldn't always rely on the help of MKO's who will be focused on their own learning at times. To an extent this takes away the importance of these "role models" described by Piaget (1952), and Slavin et al., (2003). At Primary School C the task was not individualised within the collaborative design, suggesting that the use of MKO's are more useful when the task requires a specific level of understanding and skill. A question arises here about the potential effects of collaborative learning on higher ability pupils, or more able and talented (MAT's). The theory of More Knowledgeable Other will now be discussed in more detail and how it can help learners move through the Zone of Proximal Development (ZPD).

More Knowledgeable Other

Another advocate for children as active learners and explorers was Lev Vygotsky. He too shared similar views with that of Piaget, (1952) and unfavoured this idea of conditioning through behaviourism. How Vygotsky's work differed was that he provided a more thorough focus on child development through the social context, and how knowledge and skill is enhanced through discussion and interaction (Crowley, 2017). Importantly, Vygotsky was also responsible for the theory of More Skilled and Knowledgeable others (MKO's). These individuals can provide significant help and support to other children who are incapable of completing certain tasks and problems alone (Crowley, 2017). Evidence and support for this theory in practice is included within the critical incident itself (Appendix C): "Pupil C was experiencing difficulties when finding patterns in his times-tables work and is therefore a child

that is unable to advance on his own. Subsequently, Pupil A gave two useful tips to help Pupil C complete the task and is ultimately a More Knowledgeable Other". This theory is particularly favourable to apply to this critical incident as Vygotsky had a certain interest in helping children with special educational needs (Gray and Mcblain, 2015). To explain this incident further, Vygotsky's (1997) theory highlights that this pupil would have been guided by his peer through a process called the Zone of Proximal Development (ZPD). The ZPD is simply the distance between the child's capabilities on their own and their potential performance with help and support. Vygotsky supports the model because once the child has reached the optimal level of the ZPD, they develop a sense of autonomy in their learning. They then require less assistance than before, and this allows them to take important progression steps. (Gray and Mcblain, 2015). Roth and Radford., (2011) appreciate the view of the ZPD by Vygotsky, and explained it has its most developmental effects within a cooperative activity. This is because within this style of teaching, children are free to move and interact which doesn't simply restrict the ZPD to one-to-one interactions. Therefore, there are progression opportunities for everyone participating by feeding off MKO's.

A limitation of this theory is that Vygotsky provided no guidance as to how and when MKO's should assist other pupils through the ZPD (Crowley, 2017). At Primary School C, it occurred relatively early in the lesson, which you could suggest prevented the MKO from progressing in her own work. A second limitation is that the use of MKO's may not be of great benefit for every individual in the class. This is because children have different levels of potential depending on a variety of factors and some challenges are simply out of reach (Gray and Macblain, 2015). It is difficult for more knowledgeable children to understand this concept when trying to progress others to their level. This provides difficulties for teachers to implement this theory and meet every individual's needs. Fortunately, Pupil C was able to achieve the learning objective with support from Pupil A. Nevertheless, if this task had been out of the pupil's potential, it may have cast further doubts in his ability, as well as having a damaging effect on Pupil A's belief in her capabilities to help.

Research has expanded significantly within the field of MKO and ZPD. Interestingly, Abtahi, Graven, and Lerman, (2017) explained that the MKO doesn't always have to be through the form of a participant. Instead, the "other" can be tools or resources that children use within the classrooms to guide their thinking. Of course, this depends upon what information is offered, however, it conveys knowledge of the designer which in this case would be the teacher. In the Abtahi et al., (2017) study, the child did in fact experience learning using a resource. It raises the question of the effect of this method on more able pupils' (MAT's) learning, as teachers wouldn't be relying on them to assist others. It could also address a point raised by Proctor et

al., (2005) in terms of individuals being able to use this resource to work at their own level of understanding and skill.

The penultimate section will now reflect and evaluate on the critical incident, and explain how using critical reflection as a tool has informed personal and professional development.

Reflection/Evaluation and Next Steps

Providing deeper explanations of incidents and then acting upon the questions raised is a useful tool for teachers. This can be considered as reflective professional practice where you arrive at a justified position based on your analysis. (Tripp, 1993: Soler, Craft and Burgess, 2001). A number of suggestions will now be made to provoke curiosity and interest around the themes discussed, as well as contributing to my own personal development.

Firstly, in order to promote a rich learning environment and experience for pupils, teachers should promote positive social relationships. Crowley (2017) explained that interacting with peers provides unique learning opportunities. Children should learn to respect others' perspectives, cooperate and negotiate, and ultimately achieve and develop skills that they wouldn't do so alone or with adults. By teachers achieving this pre-condition, firstly it will resolve the problem of which pupils can work effectively together based on their relationship, and secondly, it allows for a collaborative learning strategy to be employed. You could also add that forming positive relationships helps to build a healthy, confident individual (Donaldson, 2015).

Secondly, it is important that teachers consider both the more able pupils, and lower ability pupils' learning experience. Evidently, the benefits that a lower ability pupil can gain from a more knowledgeable other can be substantial, however, the initial concern within the reflection model (Appendix D) was linked to mixed ability groups and the effect on the more able student. A useful strategy for teachers could be to supply a resource to students which plays the role of the MKO. This method worked well in the study of Abtahi et al., (2017), and could contain questioning or prompts that causes a higher level of pupil thinking to bridge gaps in what they currently know and what they could potentially achieve. This has the potential to free up some responsibility of the more able student as they are granted more time to focus on their own learning. Nevertheless, its important to note that this shouldn't replace peer collaborative learning and consequently lose its unique qualities.

It's important to use critical reflection as a teacher so that we can view any incident in the school setting and try to make sense of it. Reflection shouldn't be an independent task and we should involve others such as our teaching colleagues (Craft, Soler, and Burgess, 2001). Making valuable use of their experiences and knowledge may contribute to the planning for our own future teaching (Craft, Soler and Burgess, 2001). There are also a range of methods in the way you can reflect. For example, in the study of Ebadi, and Gheisari, (2016), video recordings and simple conversations were used for teachers to reflect upon their practice. Within my own study, the Assisted Reflective Conclusions Model (ARC) was used to capture important information relating to the incident. The ARC model for this critical incident can be found as Appendix D. This model was beneficial in terms of being able to instantly reflect as an observer so that my feelings and experiences at the time were not forgotten. Aspects of the critical incident were recorded and related to the context of learning for these pupils. Most importantly within the reflection process, I have reconceptualised the scenario, offering solutions and actions to help inform future practice (Ebadi and Ghesari, 2016).

This critical incident and reflection process has made an immense contribution to my personal and professional development. Firstly, as a teacher I have gathered that it is important to not simply accept incidents in the classroom for what they are, labelling them as "typical". Every incident can be somewhat analysed using theory, to form these critical incidents that Tripp, (1993) describes. Undergoing this process could perhaps change something about my practice so that I can ultimately improve and refine my teaching. From a personal reflection, researching collaborative learning in both theory and practice has encouraged me to use this approach in my future teaching. I value how the collaborative experience can develop strong connections in the group which has such important influences on health and well-being and therefore learning.

Conclusion

Within this study, a relatively normal incident has been observed, recorded and rendered at Primary School C. Critical analysis has taken place to view the incident from different perspectives, and related to the theories of Collaborative Learning and More Knowledgeable Other. The incident was ultimately seen in a wider context (Tripp, 1993). Based on the incident, the study has suggested the next teaching and learning steps, which may appear useful for practitioners and incite curiosity. The entire process and purpose of this study is relevant in terms of the professional standards for teaching and leadership. More specifically, it's taking effective pedagogy that bit further, and meeting the standard for the professional learner (Welsh Government, 2018). I have extended my knowledge and understanding in a particular

area of teaching practice from this study, and I value the impact it has on my professional growth.

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Appendices

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

Appendix A- Observation 1**OBSERVATION / FIELD NOTES**

(Questions adapted from Fletcher Wood (2016))

Date: 26/09/19
Lesson details: Year 6 maths lesson. Lesson Duration: 45 mins. 27 Children present. Focus was on a 3-step Bodmas rule to solve expressions, times-tables, and online Mathletics tasks. The group were split into their regular 3 groups using a carousel method.
Classroom culture Engagement level was high throughout, especially when the teacher was introducing the topic of Bodmas. Children were eager to answer questions as they kept raising their hand at every opportunity given by the teacher. During the main body of the lesson, students were rushing back and forth to the teacher to show her what they had completed and achieved.
Objectives There was a clear purpose, students were given the learning objectives to stick into their books in a language that was appropriate for them to understand. "By the end of the lesson I can": • Understand the 3-step bodmas rule. • Use the 3-step bodmas rule to solve expressions. • Complete a times-table grid. • Mentally recall times-tables questions when working with a partner. Each activity had clear progressions: e.g. understand how to use 3-steps → Apply it to solve expressions complete a times-tables square → Mentally recall times-tables with partner
Direction Clear understanding of why they were doing each activity and how it helped. There were points of comparison for them to assess achievement. Teacher gave verbal and written feedback for expressions activity which links to qualities of assessment for learning . The teacher provided a 'teacher copy' of the times-tables grid which was a point of comparison for the students, tied in an element of self-assessment . Testing their times-tables with peers also included an element of peer-assessment .
Access and challenge All students were challenged during solving expressions. The teacher was on hand to assist and provide feedback with this group as they rotated within the carousel. Times-

tables practice appeared too easy for some and there was no supervision in this group which meant no progressions or challenges were set. The online Mathletics group also had no teacher present, and questions answered incorrectly gave no access to understanding. The challenge in these tasks were much too hard for some.

Assessment

Open questioning provided during introduction:

- How would you approach this question?
- What do you think is the next Bodmas step?
- 'Pupil H', do you know how to do this one? **Critical Incident**

During the lesson teacher provided visual go to diagrams to compare success.

For the focus task, instant quality verbal and written feedback was provided.

e.g. "Pupil J have a look at the 3-step process again and assess where you have gone wrong".

Pupils had a checklist of understanding relating to their learning objectives to complete afterwards.

Specifics / Critical Incidents

During the introduction to the maths topic, the teacher singled out 'Pupil H' and asked: "do you know how to answer this question for me?". It was the first time she had selected a student without their hand up wanting to answer.

The student instantly replied "No", and his body language appeared very reserved and shy. With a little encouragement from the teacher "go on let's break it down together", he was able to explain how to answer and solve the expression. This changed his total facial expression, and he showed positive emotions. He was given praise by the teacher "excellent pupil H". This resulted in an overall good lesson for the pupil.

Appendix B- ARC 1

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

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

Dyddiad/Date: 26/09/2019

Digwyddiad critigol (Ffocws)/Critical incident (focus): Singling out 'Pupil H' to answer a question

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	At first, I questioned whether the teacher should have singled out the pupil to answer a question. Once I witnessed the pupil growing in confidence, I admired the teacher for giving the pupil time and encouragement to answer. It was great to see a pupil bridge a gap in understanding and confidence.
Cofio a Deall/ Remember and Understand <i>"Allwch chi restru elfennau'r achos yng nghyd-destun y dysgu?"</i> <i>"Can you list the aspects of the incident in the context of learning?"</i>	The pupil didn't fully understand and didn't have the confidence to possibly make a mistake in front of his peers. The teacher then gave the pupil both the thinking time and encouragement to answer the question correctly. This had a positive effect on the child's confidence and resulted in a beneficial lesson for this pupil.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>"Beth y gellid ei gadw yr un fath i sicrhau addysgu a dysgu effeithiol yn y dyfodol?"</i> <i>"What could be kept the same to ensure effective teaching and learning in the future?"</i>	The time that the teacher gave the pupil was crucial, she could have moved on but was adamant on helping this pupil achieve. The encouragement, positive language and enthusiasm was to be admired which also altered the complexity of the task and how the child viewed the situation.
Casgliadau a chamau gweithredu/ Conclusions and actions <i>"Beth yw eich atebion posibl i'r mater a nodwyd?"</i> <i>"Beth y gellid ei wneud nesaf?"</i> <i>"What are your possible solutions to the issue identified?"</i> <i>"What could be done next?"</i>	Teachers need to give students time to process information so that they can answer questions. Changing the language to meet the needs of learners is also crucial in gaining understanding. Identify ways to help students grow in confidence in the classroom, and want to have an input.

Y profiad newydd / *Transformed experience*

Appendix C- Observation 2

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

Date: 26/09/19

Lesson details: Year 6 maths lesson. 2nd phase of first lesson after break. Lesson Duration: 30 mins. 27 Children present. Focus was on a 3-step Bodmas rule to solve expressions, times-tables, and online Mathletics tasks. The group were split into their regular 3 groups using a carousel method. Pupils changed within the carousel.

Classroom culture

Engagement level was good after a slightly disruptive start. Children were eager to get back to their groups and carry on with their tasks. 2 groups were very focused, with lots of discussion, however the group using the online Mathletics resource became distracted by online recreation activities. It wasn't clear whether this was due to task difficulty or general lack of effort and focus.

Objectives

The lesson again had a clear purpose, and the teacher made reference to the learning objectives stuck into their books. "By the end of the lesson I can":

- Understand the 3-step bodmas rule.
- Use the 3-step bodmas rule to solve expressions.
- Complete a times-table grid.
- Mentally recall times-tables questions when working with a partner.

Towards the end of the lesson the teacher asked students to tick which learning objective they feel they were achieving.

Each activity had clear progressions:

e.g. understand how to use 3-steps → Apply it to solve expressions

Complete a times-tables square → Mentally recall times-tables with partner

They had to complete 8 questions before their work was going to be teacher marked.

Direction

Clear understanding of why they were doing each activity and how it helped. The pupils regularly used the points of comparison to assess their achievement. Teacher gave verbal and written feedback for expressions activity which links to qualities of **assessment for learning**. The teacher again used a 'teacher copy' of the times-tables grid which was a point of comparison for the students, tied in an element of **self-assessment**. Testing their times-tables with peers also included an element of **peer-assessment**. The environment became slightly more disruptive towards the end of the lesson, this generally came from students who were clear on how to complete their tasks and couldn't progress any further. The phrase of "I've finished Miss" was noted on several occasions.

Access and challenge

Students were again challenged during the solving expressions activity. The teacher was on hand to assist and provide feedback with this group. The times-tables practice group was the most disruptive as the task appeared too easy, however, there was one instance which highlighted that the task was actually too hard for a certain pupil with ALN on his own (**Critical incident opportunity**). The online Mathematics group again had no teacher present, and questions answered incorrectly gave no access to understanding. The challenge in these tasks were much too hard for some.

Assessment

Verbal and written feedback continued throughout solving expressions.

Questioning:

- Now what step do you think you need to do next?
- What's the order of the Bodmas rule?

The teacher again provided visual go to diagrams to compare success for times-tables group- **self-assessment**.

There was no check of understanding for the online Mathematics group, as there was no quality feedback during the task.

The teacher checked what the pupils were ticking on their learning objectives sheet.

Books were collected at the end of the lesson, assuming the teacher was going to independently review.

Specifics / Critical Incidents

A child with a speech and language impairment was finding it difficult to complete his times-tables square. This child (Pupil C) could not recognise the patterns and found it confusing to get the next number in the sequence. Another class member (Pupil A) on the same table explained that he should start on a specific number and then use your fingers to help counting up. Pupil A also said that each times-table went across as well as up in a times-tables square so you're doing it twice. This helped the first pupil to effectively get to the next number in the sequence, and also recognise a pattern. You could see a sense of achievement in both the Pupil A the helper, and Pupil C the learner in the form of a smile. The second learner was clearly a more knowledgeable pupil, or a more knowledgeable other (MKO).

Appendix D- ARC 2

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

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

Dyddiad/Date: 26/09/2019

Digwyddiad critigol (Ffocws)/Critical incident (focus): Help provided by an MKO for a child with ALN.

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	At first, I struggled to see how a child with A.L.N was able to progress when doing independent work. It was very pleasing and almost surprising to see 2 students collaborating and in particular, a higher ability child enjoying in the helping of a lower ability child. It was great to see a child with a speech and language impairment bridge gaps in understanding without the presence of a teacher.
Cofio a Deall/ Remember and Understand <i>"Allwch chi restru elfennau'r achos yng nghyd-destun y dysgu?"</i> <i>"Can you list the aspects of the incident in the context of learning?"</i>	A child with ALN could not complete a task and didn't understand. Couldn't recognise patterns or progress along the sequence of numbers. A more knowledgeable other was able to assist the child's learning by providing verbal instructions. This child with ALN was then able to understand and see patterns in his work. He then completed the task effectively. Looked like a clear understanding.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>"Beth y gellid ei gadw yr un fath i sicrhau addysgu a dysgu effeithiol yn y dyfodol?"</i> <i>"What could be kept the same to ensure effective teaching and learning in the future?"</i>	Keep mixed ability groups which allows the lower ability pupils to feed off the others knowledge. Allow an environment to be collaborative, encouraging communication with peers. Allow chances for independent learning, children taking responsibility.

Casgliadau a chymau gweithredu/ <i>Conclusions and actions</i> “Beth yw eich atebion posibl i’r mater a nodwyd?” “Beth y gellid ei wneud nesaf?” “What are your possible solutions to the issue identified?” “What could be done next?”	Identify the pros and cons of having mixed ability groups in the classroom. Find ways to encourage students to talk to each other about their work. Use strategies such as ‘talk to your partner’ or ‘small groups’ when doing work which has collaborative aspects.
Y profiad newydd / <i>Transformed experience</i>	

Appendix E- Observation 3

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

Observation 3

Date: 2/10/19
Lesson details: Year 6 reading carousel. Lesson duration 40 mins. 27 children. Group split into 4: Independent reading, reading with teacher, comprehension and active learning online.
Classroom culture The class was very quiet, most pupils appeared focused on their task for the duration. If any child was not doing what was expected, then they kept it very quiet and hidden. A child with behavior issues had a negative outburst on one occasion because he didn't want to read to the teacher, as well as one girl who was upset over something another pupil had said to her.
Objectives The general purpose of the session was to practice and improve upon their reading skills which they do 4 times a week. Each group had a different way of reading, or a different task related to their reading. Independent reading promoted silent reading to themselves, as well as choosing a book appropriate for their level. Reading with the teacher involved reading out loud, with instant feedback on spelling or sentence structure. Comprehension involved reading and picking out information to answer questions, and active learning online included reading articles and online news. These tasks clearly promoted improved reading skills, and the variety of activity added to their progress.
Direction The reading carousel was part of their everyday school day so expectations were clear. They knew exactly which group sat in what area, the resources they needed for tasks, and how they should behave in this zone.
Access and challenge Independent reading: some pupils within this zone chose books which didn't involve any reading. For example, a where's wally picture book. The teacher was happy for the pupils to carry on, despite it not working on reading as such. Reading with teacher: The books used in this group were difficult for year 6, which is why the teacher was on hand to give quality help and feedback. Comprehension: Questions appeared quite easy for the group, however it still presented a challenge of reading and finding the relevant information. Active learning online: Some children watched videos and browsed the internet, which didn't involve much or any reading. They didn't make this obvious for the teacher to see.

Assessment

There was no form of assessment given to the independent reading or active online learning group. This was pupil led where pupils were expected to practice their reading skills alone.

The comprehension group had written marks given to them when they had finished. Pupils one at a time went up to the teacher to receive a mark. She also highlighted which ones they had done wrong and where to look for the correct answer.

The reading with teacher group had instant verbal feedback provided that was needed to help pupils understand any words or sentences.

There was no questioning at the end of the lesson, as it appeared more of a regular, ongoing method to improve overall reading.

Specifics / Critical Incidents

During the reading with teacher group, a child was asked by the teacher to read to her. (This child had diagnosed behavioural issues). The child refused to read, got up from his table and ran to the corner of the room. He was very upset and closed himself off from any interaction for 5 minutes. The teacher ignored this behaviour, before he returned to the group to have a chat with the teacher. The child did end up reading to the teacher when he calmed down.

This situation didn't seem to interrupt the class at all, which suggests it may have occurred on previous occasions.

Appendix F- ARC 3

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

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

Dyddiad/Date: 2/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): Child with behaviour issues refusing to read to teacher.

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	It was surprising to see a child react in such a negative way, as the normal atmosphere in the class was relaxed, calm and focused. The teacher had previously informed me of his behavioural issues so I was instantly aware that this wouldn't have been the first time. A surprising aspect was how it didn't affect the rest of the class. It was also interesting to see how the teacher generally ignored this behaviour and allowed him to calm down.
Cofio a Deall/ Remember and Understand <i>"Allwch chi restru elfennau'r achos yng nghyd-destun y dysgu?"</i> <i>"Can you list the aspects of the incident in the context of learning?"</i>	The pupil refused to read to the teacher, and thus affected his opportunity to develop his reading skills. The teacher allowed the pupil to have 5 minutes to calm down and didn't give him any attention. After 5 minutes the pupil returned to the table, and the teacher had a quick chat with him to check he was in the right frame of mind. Assessing the pupils state for learning to take place. Reading was undertaken by the pupil, where he then gained vital practice and feedback on his reading skills. The pupil gained something from the lesson.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>"Beth y gellid ei gadw yr un fath i sicrhau addysgu a dysgu effeithiol yn y dyfodol?"</i> <i>"What could be kept the same to ensure effective teaching and learning in the future?"</i>	Allowing the pupil relevant time to calm down when he had an outburst. Not letting the outburst become the main focus to the point it distracts the whole class. When the pupil is ready, allow him to re-join the group to read.

Casgliadau a chymau gweithredu/ <i>Conclusions and actions</i> “Beth yw eich atebion posibl i’r mater a nodwyd?” “Beth y gellid ei wneud nesaf?” “What are your possible solutions to the issue identified?” “What could be done next?”	Try to cater for the pupil’s state of mind, if he isn’t in the mood to read to the teacher, offer an alternative within the reading carousel. E.g. Perhaps independent read. Talk about potential ways of coping with their behaviour outbursts, such as what they can do for themselves when they are feeling like this.
Y profiad newydd / <i>Transformed experience</i>	

Appendix G- Observation 4

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

OBSERVATION / FIELD NOTES

(Questions adapted from Fletcher Wood (2016))

Observation 4

Date: 2/10/19
Lesson details: Year 6 PE lesson as part of school trip. Lesson Duration: 45 Mins, 3 x 15 mins. Learning about the History of Rugby. 3x Groups of 18 pupils. Activities consisting of Football, Rugby, and Eton Ball (Mix of Both).
Classroom culture Engagement was generally poor in each group. A lack of understanding of the rules and purpose to the activity. A poor introduction along with questions not being answered effectively lead to a poor PE lesson.
Objectives There was no clear purpose to the PE lesson as pupils were not given clear outlines of what they should be learning or working on. The teacher/coach explained the rules extremely vague and didn't explain why they were doing each activity. The purpose was to experience how the history of rugby progressed from football→Eton Ball→Rugby. This wasn't explained to the pupils and the differences in each sport were not highlighted.
Direction Due to pupils having a lack of understanding of its purpose and rules, they were unclear of how to do it well. This ultimately effected how much praise was given out by the coach.
Access and challenge Due to the lack of rules and constraints applied to each game, inclusion levels were poor. Higher ability players were heavily involved in the game, whilst others who had limited experience in sport had little or no contact time. This obviously linked to how much of a challenge each game was: no challenge for high ability, unachievable challenge for low ability. In both cases it led to decreased effort and interest.
Assessment Closed questions applied in the introduction: who's played football or rugby before? Did not offer any chance for questions from pupils. During, there was a clear lack of understanding of the rules. Games were not stopped to explain the game again but instead they tried to answer questions as the session went on. After, an explanation was given as to why they did each activity. Questioning was then used to test what they had learnt. Limited response by pupils.
Specifics / Critical Incidents Engagement was generally poor in each group. The lesson did not promote physical literacy, in which their understanding, confidence, motivation and physical competence was not developed. The coaches used a large-sided game 9v9 in each group which caused limited contact time for each pupil. Naturally, some pupils withdrew themselves through

boredom. The lesson as a whole was uninspiring and gave the pupils a negative experience of PE

Appendix H- ARC 4

Yr Athrofa
Addysg a'r Dyniaethau
Education and Humanities

Model Beirniad Wedi Adfyfrio (BWA) *Assisted Reflective Conclusions (ARC) Model*

Dyddiad/Date: 2/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): Poor engagement in a PE lesson, poor experience.

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	It was disappointing to see such a negative experience of PE for the pupils, and for them to come away uninspired. A large-sided game is such an old-fashioned method and doesn't promote inclusivity. If anything, I think aspects of their physical literacy has been decreased through this experience e.g. motivation.
Cofio a Deall/ Remember and Understand <i>"Allwch chi restru elfennau'r achos yng nghyd-destun y dysgu?"</i> <i>"Can you list the aspects of the incident in the context of learning?"</i>	Pupils didn't understand the rules or purpose of the activity due to a poor introduction. Pupils tried to question as the activity progressed, but limited response was offered by the coaches. A lack of understanding meant a lack of the desired outcome. Coaches tried to question at the end of the session but gained limited valuable responses. Limited or no learning took place through the activity.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>"Beth y gellid ei gadw yr un fath i sicrhau addysgu a dysgu effeithiol yn y dyfodol?"</i> <i>"What could be kept the same to ensure effective teaching and learning in the future?"</i>	There were limited aspects that should be kept the same: Timing of session, students would have had sufficient time to take part and learn. Range of skills would have been used if understanding was there from the start.

Casgliadau a chymau gweithredu/ <i>Conclusions and actions</i> "Beth yw eich atebion posibl i'r mater a nodwyd?" "Beth y gellid ei wneud nesaf?" "What are your possible solutions to the issue identified?" "What could be done next?"	A more thorough introduction in language that makes it easy for year 6 pupils to understand. A number of constraints added to each activity e.g. must pass to every person in your team before scoring a goal, small sided games e.g. 5v5 which leads to more contact time. Allow students to ask questions before activity starts so they have sufficient time to process the response. Give praise so that students know when they have done something right. Use probes in questioning to lead to the desired responses.
Y profiad newydd / <i>Transformed experience</i>	