

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.

1. Introduction

Many incidents are observed day to day in classroom settings, but it is the interpretation and inferred significance of these events that allow practitioners to improve their techniques and practices to benefit their students. Donaldson's (2015) review discusses the role practitioners must play in the future in order to improve their professional development; one way this may be achieved is through the study of critical incidents.

Tripp (2011) explains that the occurrence of a critical incident isn't simply a description of the observed event; it is the interpretation of this event in a wider context and understanding the implications it could have on a group or an individual's learning. Conclusions drawn as a result of the critical incident should then be reflected on by the observer with intent to act on their findings and improve their classroom environment.

This review will focus on a critical incident observed during a lesson where the student of focus displayed self-motivation, a highly favourable trait. As stated above, the inferred significance of this incident that has led to a review of relevant research and strategies which can be utilised by practitioners to increase favourable traits in our students. A secondary purpose of this review is to highlight the importance the role of the reflective practitioner will have in the new 2022 curriculum in Wales. The professional standards for teaching and leadership as set out by the Welsh Government (Hwb 2019) recommend that practitioners further reflect on any changes in practice which may arise as a result of a critical incident, to promote the continuous evaluation and improvement of teaching practices. As such, any recommendations set out in this review should also be subject to further reflection and teaching practices should be further adapted as required.

2. Observation

For the purposes of this review the British Educational Research Association (BERA) guidelines will be followed to guarantee anonymity of all person(s) and facilities involved.

"The confidential and anonymous treatment of participants' data is considered the norm for the conduct of research. Researchers should recognise the entitlement of both institutions and individual

participants to privacy, and should accord them their rights to confidentiality and anonymity.” (BERA, 2018).

School and class context

A critical incident discussed in this review was observed in [REDACTED]. This English- medium school is located in South Wales and had 1,721 students on roll between the ages of 11-18 as of 2017.

The school is based close to a city centre and has a catchment area that includes a broad range of ethnic, religious and economic backgrounds. Over 60 different languages are spoken within the school community, and there are no students who speak Welsh as their first language. At this school 32.7% of students are eligible for free school meals (FSM), which is noticeably higher than the national average of 17.4% and the percentage of students attending the school that have special education needs (SEN) is approximately 10% higher than the national average, at 35%. compared to the national average of 25.1% There are no students with their first language as Welsh, but more than 60 different languages are spoken within the community. The school’s current performance and its prospects for improvement were both rated “*Excellent*” by Estyn in their 2017 review of the facility.

The critical incident was observed during a high ability year 9 mathematics class. The lesson introduced a new topic, and involved an introductory task during which the students revisited a topic taught in the previous academic year.

3. Methodology

In total, four critical incidents were observed and documented for the purpose of this study (all related documents are included in Appendix 1 (Figures 1-4)). However, only one is of these incidents is discussed further in this review (Figure 1). This particular critical incident is then interpreted in a wider context and implications it may have on groups or an individual’s learning are then considered.

For the purposes of this review, observation field notes were recorded in a form which followed a series of questions adapted from Fletcher Wood (2016). After an incident was observed, an informal interview was carried out to gain insight into the event. Due to the observations being carried out by a single individual it could be said that the findings may be biased due to a lack of a peer review, but given the scope of this review the interpretations presented are likely to be appropriate.

The validity of this review may be called into question due to the fact that observations may be considered unreliable as a means to make assumptions about a critical incident (Cohen *et al.* 2011). It has been discussed by Cohen *et al.* that the results of an incident may not be applicable to other situations and that other factors may affect the observed outcome. Three key factors that may influence the critical incident are listed below:

- The observer, in exploring the present, may be unaware of antecedent events;
- The student of focus may be unrepresentative of the classroom;
- The presence of the observer in the classroom may bring about unnatural behaviours;

Lincoln and Guba (1986) argue that due to the naturalistic nature of observations and the nature of human behaviour being time- and context-bound, it is highly unlikely that a proven scientific law will be discovered, but rather a “working hypotheses” related to specific contexts can be developed. Only when these hypotheses are applied to similar contexts can a level of trustworthiness of the findings be attained. Guba (1985) proposes that further work that can be done to improve the credibility of the hypotheses:

- Prolonged observation periods (multiple lessons)
- Triangulation (different lessons, different observers)

Taking all of the above into account it should be stated that while the methods used for this review are open to scrutiny, all methods used are appropriate for the scope of this review and the discussion herein is an honest interpretation of the observed event and should be treated as such.

4. Four Purposes

The critical incident

The critical incident was observed during a worksheet task given to the class after being introduced to a new topic. The students were given an initial exposition and a series of worked examples before starting the worksheet task.

The student of interest raised his hand to ask for help with one of the questions. However, the teacher was busy with another student at the time so asked the student to wait for them to finish. The teacher attended to the student shortly after, and found that the student had answered the question correctly without any external assistance. When asked about the problematic question the student was able to clearly explain their thought process and approach to solving the problem.

The four purposes

The outcome of this event is consistent with one of the 'four purposes' outlined in Donaldson's review of curriculum and assessment arrangements in Wales (2015). These purposes are, in essence, four favourable traits which Donaldson suggests should be fostered in school students. The purposes will be implemented to give direction to the new 2022 curriculum by the Welsh government.

"The purposes should guide all future decisions about national and local educational priorities, and underpin all teaching and learning in Wales" (Donaldson 2015).

The four purposes are as follows:

1. Ambitious, capable learners
2. Enterprising, creative contributors
3. Healthy, confident individuals
4. Ethical, informed citizens

The first of these purposes was demonstrated by the student during the worksheet task. A description of this purpose is given below.

Ambitious, capable learner

Donaldson (2015) identifies an ambitious learner as someone who is building up a wealth of prior knowledge and can apply that knowledge in a variety of different contexts. An ambitious learner is able to explain ideas and concepts they are learning about and set themselves high standards. The student observed during the critical incident displayed all of these traits during the task which resulted in a positive outcome during the lesson. The ability of the student to take charge of their own learning is an invaluable skill that would complement the other three of the four purposes.

5. Literature Review

Self-explanations

The student observed during the critical incident was able to clearly explain their thought process when working out the correct answer to the teacher, and this communication between teacher and student could be used as a formative assessment to gauge the level of understanding within the topic. However, the benefits of a student explaining their methods have been shown to be greater when this is done as personal exercise, rather than when explaining to another person. Chi (2000) defines self-explaining as the following:

“The activity of generating explanations to oneself... It is somewhat analogous to elaborating, except that the goal is to make sense of what one is reading or learning, and not merely to memorise the materials. In this sense, self-explaining is a knowledge-building activity that is generated by and directed to oneself.”

Berry (1983) identified that learners who self-explained retrospectively did experience an improvement in performance compared to no self-explanation at all. However, the effects were more pronounced with concurrent self-explanation (i.e. explaining to oneself at the start of a task). This complements the findings of Rittle-Johnson (2006), who identified that self-explanation improved conceptual understanding of a topic and that procedural knowledge was also enhanced when used in combination with direct teaching methods. The findings of these studies clearly highlight the beneficial use of self-explanation to enhance conceptual understanding of a topic, and that students should be encouraged to reflect on what they are doing and why they are doing it when tackling problems.

Siegler (2002) discusses the emphasis put on generating explanations for how mathematical problems work during lessons and suggests it is a factor contributing to the disparity between the performance of Japanese students and their English and US counterparts. Reciprocal self-explanation is currently being used as a key part of lessons in Japanese classrooms and the performance of the Japanese students is significantly higher when compared internationally. Other education systems should take notice of these additional methods employed by practitioners in order to assist students with their conceptual understanding of topics. These teaching strategies fall in line with Donaldson's (2015) pedagogical principle in which he suggests that teachers should utilise a blend of teaching styles to encourage children to critically evaluate information and develop deep conceptual understanding.

Self- Efficacy

When asked to wait by the teacher, the student observed in this study could have waited for assistance but it appears that they felt confident enough to attempt the question. It could be postulated that the student had a high level of self-efficacy in the lesson. Bandura (1994) defines self-efficacy as:

“the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations”.

The self-efficacy of an individual is predictive of outcomes in many aspects of a person's life including academic performance, health practices, sports performance and socialization (Owen and Froman 1988). However, Chowdhury and Shahabuddin (2007) clarify that self-

efficacy is only a valid predictor of performance when the skill required for a task is present. In Banduras' (1977) initial proposition for the theory of self-efficacy he claimed that we may "predict attempts to perform the designated behaviour but not necessarily the skill level achieved". While it can be said that a student's ability should be a strong indicator of their chance of success, the concept of self-efficacy accounts for those cases where individuals who display academic prowess in the classroom are unable to perform under exam conditions and where the student is accountable for their own work. If a student has no belief in their own ability to perform in an unsupported situation then there is the potential to create a self-fulfilling prophecy. For example, in a day to day classroom setting, if a student has had negative experiences during a topic this could reduce their self-efficacy to a point where they may refuse to attempt work due to the pre-emptive belief that they will fail anyway. Similarly, Galyon (2012) was able to successfully identify three 'levels' of academic self-efficacy and use these as predictors for student participation and exam performance. However, due to a relatively small sample size and weak to moderate strength of the findings by Galyon (2012), the broader application of these findings is limited. Further studies on larger sample sizes would need to be performed to increase the statistical significance of these results.

Four sources have been identified by Bandura (1994) that promote / dictate an individual's self-efficacy: Mastery experiences, vicarious experiences, social persuasions and somatic & emotional states. It is through these sources that children are able to increase their self-efficacy (or decrease it if negative experiences occur). All of these sources can be created in a classroom environment through use of effective scaffolding (Wood, Bruner and Ross, 1976) and by creating a safe environment for all participants in the class. Through use of a blend of teaching methods (Donaldson, 2015) students can be shown that they are capable of achieving mastery of a topic; this should increase a student's self-efficacy and promote a positive change in their school participation.

Deci and Ryan (1985; 2000) discuss the importance of communication with students in order to meet their psychological need for competence; transmitting the idea to students that everyone is capable of performing well in class, building on and improving the students' perception of their own abilities within a subject, explaining to students the importance of the subject content throughout the duration of the module / syllabus and promoting positive interpersonal relationships between teacher and students with a focus on respect and empathy towards students. These constant interactions with students are likely to increase their self-efficacy by building on their vicarious experiences, which could in-turn increase social persuasions as a result of the increased motivation of multiple students, potentially leading to class-wide influence.

Zone of Proximal Development

The critical incident discussed in this review focuses on the child's ability to answer the question without any support after initially asking for help. This series of events suggests that the child was never in need of support and was able to comprehend the problem presented to them, which can be seen as an important milestone in the student's learning process as it is evidence that they are close to mastering the skill. It was by chance that the teacher was unable to attend the student initially; if the teacher had attended the student when the student had requested help there would have been no opportunity for the student to demonstrate their comprehension of the task and this would likely have resulted in an incorrect assessment of the student's level of understanding. The concept of the zone of proximal development (ZPD) developed by Vygotsky provides a useful visualization of the student's level of understanding in the topic. The ZPD has been defined as:

"the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers"

(Vygotsky, 1978, p. 86).

Vygotsky (1978) discussed that when a task places a student in the ZPD, when provided the correct assistance the student will be more likely to complete the task in such a way that will lead them to mastery of the topic. Vygotsky (1978) highlights the three main components that are most effective in assisting a student through the ZPD: Presence of a more knowledgeable other (MKO), positive social interactions with a tutor that promote observation and practice, and scaffolding (Wood, Bruner and Ross, 1976) through use of appropriate activities that support the student through the ZPD. In most contexts the MKO would be the tutor who would then in turn provide the positive social interactions and scaffolding necessary to help the student move through the ZPD. It could be presumed that during the initial introduction to a new topic, most students would find themselves outside of the ZPD where they are unable to have a meaningful attempt at the tasks. Kirschner *et al.* (2006) argues the point that direct guidance from a tutor is the most efficient form of teaching during early acquisition of knowledge, and avoids many of the pitfalls that arise from constructivist approach. Brown and Campione (1994) highlighted that when students learn science in a classroom setting with a focus on pure discovery and minimal feedback tactics, the participants found themselves lost, frustrated and creating misconceptions. Moreno (2004) identifies that there is a significant growing body of research that is highlighting the finding that students learn more effectively from a strongly guided teaching style than from discovery. While the mounting evidence clearly favours direct teaching over discovery, as a

student's prior knowledge base develops, they will be able to access the benefits of guided discovery.

Martin (2016) describes five principles that identify key points in the learning process:

1. Reducing the difficulty of a task during initial learning
2. Instructional support and scaffolding through the task
3. Ample structured practice
4. Appropriate provision of instructional feedback
5. Independent practice, supported autonomy, and guided discovery learning.

These five principles describe the necessity of direct teaching in order to make lesson content accessible to the students during initial acquisition of knowledge, after which necessary scaffolding can be provided with the intention of promoting independence and increasing the likelihood that students will benefit from guided discovery.

One of the shortcomings of relying on peers as MKO's is discussed by Chi (2000), as the act of self-explaining and explaining to others is compared. In the study, Chi identifies that while self-explaining is the act of an individual trying to process and understand new information that has been presented to them. In contrast, the act of explaining to others requires the added demand of ensuring that the information being communicated is understood by the receiver. It is this added cognitive requirement that may result in information being miscommunicated rendering the exercise useless. Nevertheless, other studies have identified that self-explaining and explaining to others are both constructive activities and have their own inherent merits (Teasley, 1995).

6. Reflection / evaluation and next steps

Reflection and evaluation

The methodology of observations has been criticised for three main reasons: the observer may be unaware of antecedent events, the student may be unrepresentative of their peers, and the presence of the observer in the classroom may lead to unnatural behaviours by the student. The critical incident discussed in this review was a positive incident, in that the student displayed favourable traits, and an analysis of this incident has led to a thorough review of three concepts in teaching: self-explanations, self-efficacy and the zone of proximal development (ZPD). The criticisms of observation as a method for identifying critical incidents are therefore not necessarily applicable in this instance, as it does not matter if the student's behaviour was influenced by antecedent events or the presence of the

observer, nor does it matter if the student was not representative of their peers. The key finding of the review is that the student displayed self-explanation, self-efficacy and appeared to be working within the ZPD on this particular occasion, and these are traits that should be fostered in students to create ambitious, capable learners as per Donaldson's (2015) 'four purposes'.

Next steps

The act of identifying, documenting and reviewing critical incidents has its merits and promotes research within the teaching profession in a convenient environment. While the creation of a report such as this for every critical incident identified would be impractical, awareness of critical incidents should be raised amongst practitioners. Whilst not every critical incident will give rise to a change in practice, the positives or negatives of an observed incident should, as a minimum, be reflected on in an attempt to improve on the situation or replicate it.

Critical reflection

All observations were supplemented with an Assisted Reflective Conclusions (ARC) model form, which were completed after recording a critical incident observation (completed forms are included in Appendix 2 (Figure 5-8)). These forms follow the Gibbs' Reflective Cycle (Gibbs, 1988) which was designed to give structure to learning from experiences. Being cyclical by design it is open to repeated experiences allowing practitioners to adapt to both negative and positive experiences.

The cycle covers six stages:

- **Description** of the experience
- **Feelings** and thoughts about the experience
- **Evaluation** of the experience, both good and bad
- **Analysis** to make sense of the situation
- **Conclusion** about what you learned and what you could have done differently
- **Action plan** for how you would deal with similar situations in the future, or general changes you might find appropriate.

By following this model, the act of critical reflection was able to be expressed in an organised manner allowing for easy interpretation and, when completed, provided a clear pathway to the next logical steps to be taken by the practitioner. The practicality of the model diminishes in the real world due to the workloads and time constraints imposed on practitioners.

However, the value of critical reflection should not be underestimated and should be encouraged to be done in an informal setting with practitioners striving to improve from their experiences and observations.

Professional and personal development

The findings of this report realistically cannot be applied to all situations with the intention of creating self-driven students with a willingness to search for the deeper context for all materials they cover during their time in school. However, if the core concepts of self-explanation, self-efficacy and the ZPD are implemented into lesson plans and teacher-student relations then the likelihood of producing students who are ambitious, capable learners is increased.

The benefits of concurrent self-explanation (Johnson, 2006) should be encouraged in classrooms. The main challenge in this regard is making students understand the benefit of the extra work that is imposed on them as a result. Notwithstanding, if concurrent self-explanation was to be integrated into the normal classroom as a part of a plenary task the teacher could use this as a formative assessment to gauge level of learning as a result of the lesson.

The constructivist nature of discussion with peers should not be introduced during the early acquisition of knowledge, but should be postponed until a time that sufficient prior knowledge is held by participants so that meaningful discussion can be had and the risk of misconceptions developing is minimised.

In order to promote self-efficacy amongst students the following two sources proposed by Bandura (1994) should be present whenever possible:

- Mastery experiences: Providing the students with “low stake” questions allowing them to experience success
- Vicarious experiences: Encouraging students throughout the duration of the lesson, being sure not to undermine their confidence or refer to work as “easy”.

The other two sources proposed by Bandura (1994) (social persuasions and somatic & emotional states) could be regarded as not in control of the teacher, but if the first two are implemented successfully the likelihood that the class as a whole will show an eagerness to perform is increased.

7. Conclusions

To conclude, the reason for the critical incident arising could be interpreted as an act of negligence by the teacher, but it appears that the learning experience for the student had far greater merit than if the answer had been given by the teacher. The critical incident observed has showed that students are capable of problem solving when they have the appropriate motivation to do so. It is the duty of the practitioner to expose their students to as many positive and suitable experiences which promote these favourable behaviours. The improvements in conceptual knowledge as a result of self-explaining presented by Rittle-Johnson (2006) and the psychological benefits associated with high self-efficacy should be promoted amongst practitioners within classrooms. If implemented effectively they would address Donaldson's (2015) desire to create ambitious and capable learners within Wales. Should these concepts be implemented into teaching practices, the events that occur as a result should also be critically reviewed to ensure that students are benefitting from the practices. The methods used in this review would be suitable for any follow up discussion of future events that arise as a result of implementing these concepts into teaching practices. The ARC forms in particular allow teachers to develop themselves in line with the professional standards for teaching and leadership as set out by the Welsh government to improve the quality of teaching across the country (Hwb, 2019)

8. References

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9. Appendices

Appendix 1: Critical Incident reflection sheets

(overleaf)

Figure 1: Observation notes (001) – Lesson in which the critical incident detailed in the review happened.

 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: 2/10/19			
Lesson details: Mathematics - 9FY		Significant Figures & Estimation	
Classroom culture (Are the students focused on learning?) Class is generally chatty - but on task			
Objectives (Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) Consolidation of Significant Figures & introducing estimation			
Direction (Are the students clear about what they are doing and how to do it well?) Explanation given - no worked examples, lots of common mistakes			
Access and challenge (Are all students able to engage in the lesson? Are all students challenged?) Topic last visited in year 8, so a lot of recall required			
Assessment How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching? Whiteboard Q's, checking worksheet answers			
Specifics / Critical Incidents Are there particular telling moments and examples which it would be helpful to discuss? Student asked for help when teacher was busy, after asking politely to wait the Pupil was able to answer the question very soon after with no assistance after thinking about the solution.			

Figure 2: Observation notes (002)

 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: 26/9/19	
Lesson details: Mathematics - 9FY gyda EBA	
Classroom culture (Are the students focused on learning?) Low level disruption	
Objectives (Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) Consolidation/Intro - Powers (Fractional indices)	
Direction (Are the students clear about what they are doing and how to do it well?) Students unsure of task - not clearly explained	
Access and challenge (Are all students able to engage in the lesson? Are all students challenged?) No worked examples - too challenging	
Assessment How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching? Power up @ Start of Session	
Specifics / Critical Incidents Are there particular telling moments and examples which it would be helpful to discuss? Students unable to answer worked example due to pace of lesson. Child at Front of Class unable to answer "Powerup" not helped. Distracted. Fidgeting	

Figure 3: Observation notes (003)

 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: 26/9/19	
Lesson details: Simultaneous equations - Intro/consolidation	
Classroom culture (Are the students focused on learning?) Quiet & Focussed on Worksheet/Task No hands up All students participating Most Walking around during work	
Objectives (Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) Consolidation - Simultaneous equation Working through questions as group initially Class increasing in difficulty (Worded question) Referring back to objectives.	
Direction (Are the students clear about what they are doing and how to do it well?) Teacher clearly explaining lesson, good examples Class increasing in difficulty All students aware of the lesson & are participating Teacher ensured they knew answer.	

Figure 4: Observation notes (004)

 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: 26/9/19			
Lesson details: English - 9FY - Applying Leviathan's principles to Society			
Classroom culture (Are the students focused on learning?) Focussed on reading initially Disruptive front rows - no seating plan Class involved in starting next task - No transition! v. good			
Objectives (Is there a clear purpose to the lesson? How do the lesson activities promote that purpose?) LO stated & recap given, no real guidance - Students free to express			
Direction (Are the students clear about what they are doing and how to do it well?) Quiet reading at start, task has a distracting element (draw a person) taking up time.			
Access and challenge (Are all students able to engage in the lesson? Are all students challenged?) Whole class given 20 min for free reading, not all students aware of principle behind task All students creating an acceptable standard of work - task allows differentiation			
Assessment How does the teacher assess student understanding before, during and after the lesson? How is this used in their teaching? Asks for suggestions about task to gauge ability			
Specifics / Critical Incidents Are there particular telling moments and examples which it would be helpful to discuss? Child came in late - Dealt with quietly outside Class praise given mid task about behaviour during tough topic			

Appendix 2: Assisted Reflective Conclusions (ARC) sheets

(overleaf)

Figure 5: ARC sheet completed from observation 001



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

Dyddiad/Date: 02/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): A child asked a teacher for help, but was asked to wait, the student was then able to solve the question on their own after being given time to think.

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	This was a fantastic incident, as it showed that the child didn't need to ask for help. It may have been that the child had a lack of confidence in their abilities and wanted the teacher to help support their problem solving.
Cofio a Deall/ Remember and Understand <i>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>Pa elfennau o'r profiad dysgu oedd yn siomedig?</i> <i>"What were the elements of the learning experience that were disappointing positive?"</i>	The pupil was forced to wait before he was able to receive assistance and used this time to reflect on the problem and eventually come to the correct solution. This incident it may have instilled faith in the pupils' confidence and ability to problem solve without relying on the support of the teacher. This reinforces the scheme of "Brain, Buddy, Boss" that has started to be used in the mathematics department at Fitzalan High School.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>Beth oedd achos yr elfen siomedig bwysicaf?</i> <i>"What was the cause of the most important disappointing positive element?"</i>	In my own career, I will aim to encourage students to use the "Brain, Buddy, Boss" system. This will hopefully achieve three goals: - Expose pupils to more time spent problem solving individually - Assisting peers with difficult questions, passing on their knowledge - Take pressure of the teacher to help other students within the class The fact that the student was able to solve the problem on their own shows that they understood the work and were able to critically evaluate their answer and be confident that it was correct.
Casgliadau a chamau gweithredu/ Conclusions and actions <i>Beth yw eich atebion posibl i'r materiau siomedig a nodwyd?</i> <i>"What are your possible solutions to the disappointing positive issues identified?"</i> <i>Beth ydych yn mynd i'w wneud nesaf?</i> <i>"What will you do next?"</i>	In conclusion, I will be enforcing the "Brain, Buddy, Boss" strategy in my own lesson plans with the intention of building pupils confidence in their own work and to build on their motivation to not seek assistance from a teacher until they have exhausted all other resources available to them. I will be observing classes with a specific focus on when the "Brain, Buddy, Boss" strategy. Trying to identify opportunities within lessons where the strategy can be effectively implemented.
Y profiad newydd / Transformed experience	

Figure 6: ARC sheet completed from observation 002



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

Dyddiad/Date: 15/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): A class was struggling with the pace of the lesson which resulted in the teacher having to repeat their exposition and provide easier tasks.

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	The pupils were unable to follow the pace of the lesson which may have put some of them off the topic as it may seem too difficult for them
Cofio a Deall/ Remember and Understand <i>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>Pa elfennau o'r profiad dysgu oedd yn siomedig?</i> <i>"What were the elements of the learning experience that were disappointing?"</i>	The teacher was eventually able to spot that the class was struggling and repeated the exposition and lowered the difficulty of the task set. The teacher displayed a lot of intimidating formulas on the board before showing how they were going to be used in the lesson. It was this initial exposure to the material that I feel put off a lot of the students.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>Beth oedd achos yr elfen siomedig bwysicaf?</i> <i>"What was the cause of the most important disappointing element?"</i>	In my own career, I will aim to ensure that expositions contain at least 3 worked examples of the subject topic, and will avoid exposing students to cognitively demanding formulas and definitions until necessary. This will hopefully achieve three goals: - Reduce cognitive load in beginning of lesson - Allow for appropriate scaffolding - Show the students that they are able to complete the work (mastery experience) The pace of the lesson was not suitable for the class. During the initial task set by the teacher there was evidence that not enough prior knowledge was held by the group to effectively take part in the lesson.
Casgliadau a chymau gweithredu/ Conclusions and actions <i>Beth yw eich atebion posibl i'r materiau siomedig a nodwyd?</i> <i>"What are your possible solutions to the disappointing issues identified?"</i> <i>Beth ydych yn mynd i'w wneud nesaf?</i> <i>"What will you do next?"</i>	In conclusion, I will be making sure that sufficient prior knowledge is held by students before advancing onto different topics. I will be designing lesson plans to allow time for effective recall of prior material and ensure that it is relevant to the current lesson.
Y profiad newydd / Transformed experience	

Figure 7: ARC sheet completed from observation 003



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

Dyddiad/Date: 15/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): The teacher ensured that all pupils were aware of the task and how to correctly complete it

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	The lesson went very well for all pupils involved and is a fine example of how successful a task can be when all students are: - Able to participate - Know what is expected of them
Cofio a Deall/ Remember and Understand <i>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>Pa elfennau o'r profiad dysgu oedd yn siomedig?</i> <i>"What were the elements of the learning experience that were disappointing positive?"</i>	All students were able to recall the main points of the prior lesson and were able to start the task with minimal distraction or need to ask the teacher for assistance. This is most likely due to the work being prepared for the group in an effective memorable format that got the students engaged in the task and therefore able to effectively recall. All students were willing to take part in the task and displayed creative interpretations when given the same brief.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>Beth oedd achos yr elfen siomedig bwysicaf?</i> <i>"What was the cause of the most important disappointing positive element?"</i>	In my own career, I will aim to make my lessons memorable and engaging with pupils to increase the likelihood of participation in later lessons This will hopefully achieve two goals: - Increase levels of class engagement - Improve the quality of learning The fact that all students were able to complete the task so effectively must have been as a result of a prior lesson which peaked engagement within the class
Casgliadau a chamau gweithredu/ Conclusions and actions <i>Beth yw eich atebion posibl i'r materiau siomedig a nodwyd?</i> <i>"What are your possible solutions to the disappointing positive issues identified?"</i> <i>Beth ydych yn mynd i'w wneud nesaf?</i> <i>"What will you do next?"</i>	In conclusion, I will be making an effort to create fun and engaging lessons that promote class participation in order to make learning a more memorable task. I will observe lessons and identify strategies utilised by practitioners to create fun and engaging tasks that promote pupil participation and retention of knowledge
Y profiad newydd / Transformed experience	

Figure 8: ARC sheet completed from observation 004



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

Dyddiad/Date: 15/10/19

Digwyddiad critigol (Ffocws)/Critical incident (focus): A child came in late to the lesson and was dealt with quietly outside of the classroom

Profiad/ Experience	
Teimladau/ Feelings <i>Beth yw eich teimladau ynghylch y profiad?</i> <i>"What are your feelings regarding the experience?"</i>	The way the teacher dealt with the situation was very good as they were able to explain the situation clearly to the pupil while not embarrassing/ making an example of the pupil in front of the whole class.
Cofio a Deall/ Remember and Understand <i>Allwch chi restru'r agweddau ar y profiad dysgu a aeth yn dda?</i> <i>"Can you list the aspects of the learning experience that went well?"</i> <i>Pa elfennau o'r profiad dysgu oedd yn siomedig?</i> <i>"What were the elements of the learning experience that were disappointing positive?"</i>	The teacher quickly and without fuss took the student out of the class as subtly as possible so as not to draw attention to the situation. The pupil was confronted with the negative connotations of their actions in a safe environment without fear of embarrassment of being reprimanded in front of their peers.
Gwerthuso a dadansoddi/ Evaluate and analyse <i>Beth fyddwch chi'n cadw'r un fath i sicrhau dysgu ac addysgu effeithiol yn y dyfodol?</i> <i>"What will you keep the same to ensure effective teaching and learning in the future?"</i> <i>Beth oedd achos yr elfen siomedig bwysicaf?</i> <i>"What was the cause of the most important disappointing positive element?"</i>	In my own career, I will aim to deal with acts of misbehavior in a firm but calm and quiet manner in order to get my point across to the pupil whilst making an effort not to disrupt the lesson or draw attention to the pupils actions. The pupil was able to reflect on his actions in a safe environment
Casgliadau a chamau gweithredu/ Conclusions and actions <i>Beth yw eich atebion posibl i'r materion siomedig a nodwyd?</i> <i>"What are your possible solutions to the disappointing positive issues identified?"</i> <i>Beth ydych yn mynd i'w wneud nesaf?</i> <i>"What will you do next?"</i>	In conclusion, I will be making an effort to deal with acts of misbehavior in a way that does not disrupt the class or draw attention to the situation. I will observe lessons and identify strategies utilised by practitioners to effectively deal with situations.
Y profiad newydd / Transformed experience	