

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

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Introduction

The following assignment will consist of a critical evaluation of an observed incident within a classroom setting using David Tripp's Critical Incident Methodology. The aim of this essay is to begin to adopt a reflective approach to my teaching and to start engaging with appropriate literature to further my understanding regarding my chosen topic.

A critical incident according to Tripp is an “interpretation of the significance of an event” (Tripp, 2011) which takes place within the classroom. Tripp states that a critical incident is the “value” that we attach to a certain incident that we witness. Along with that it is also the “judgement” and the “significance” we assign to a particular incident which makes it critical (Tripp, 2011). Therefore, by understanding this, we can see that for educators, the critical incident's role is to facilitate further research into a particular topic and reflect on their own practice. By using everyday situations that may appear ‘typical’ at first glance, educators can begin to assign meaning to these incidents, and this provides an opportunity to develop self-awareness of how they are teaching whilst further understanding of the dynamics at play in their classroom.

A vital aspect of the critical incident is the literature review. This enables teachers to engage with academic resources related to the area of their critical incident and creates a database of further research based upon critical incidents. It allows for action research (Lewin, 1944) where teachers can conduct classroom research to solve a problem that they face that has been highlighted by their critical incident. On the whole, critical incidents provide an opportunity for educators to learn and improve practice (Hertel, 2007).

The focus of this essay is an incident witnessed whilst in an immersive classroom that was filmed of an English Medium primary school based in Swansea local authority. The

critical incident surrounds the topic of “Hands Up” being used within the classroom. Throughout this essay I will be analyzing and evaluating the use of the method for Assessment. By utilizing the work of prominent education psychologists; John Dewey, Lev Vygotsky, Jerome Bruner and others whilst also including research papers and books this will further understanding of the benefits and negative effects using the hands up method can have. To provide insight, there will be exploration of alternative classroom management methods and assessment for learning and a critical evaluation of the positives and negatives of these methods.

The incident that I witnessed within the context of the immersive room was a child in a Year 4 classroom not being engaged with the lesson whilst the teacher was asking the children to put their hands up to answer his question. The child did not put their hand up and could be seen rolling their pen on the table and conversing with another child whilst their fellow classmates answered.

As stated, throughout this essay by using literature, pedagogy and psychological studies, the aim is to critically evaluate why this child and others within a similar setting may have been disengaged, what alternative teaching methods could be used and what I will be taking forward to use within my own teaching practice in the future.

Literature Review

By witnessing the critical incident, clear key areas to further explore arose. This section of the assignment will focus on literature that investigates the use of the “Hands Up” technique within the classroom, theories surrounding classroom management, assessment for learning, pupil participation and engagement.

Rowe states that learning requires pupils to share a plethora of experiences and “conversation” (Rowe, 1986, p.43). To create such conversations, teachers often use questions to open up the dialogue in a classroom. Questions asked within a classroom can not only lead to further conversation but can also deepen the child's understanding, imagination and problem-solving skills (Wragg, 2016, pp.7–8). If we look to the 12 pedagogical principles for the curriculum for Wales, we can see it is stated that

educators should be using a blend of approaches that “promote problem-solving, creative and critical thinking” (Welsh Government, 2023).

To facilitate asking and answering questions, teachers often use the “hands up” method whereby they ask the pupils within their class to raise their hand if they wish to answer the question they have posed. Questioning and interaction between the class and the teacher creates a more “active learning” (Donaldson, 2016) experience as pupils are responsible for their own learning and their own level participation. Theorist John Dewey believed that knowledge is not passively received but constructed by the learner through experience and this “active learning”. As the following literature review shows, there are many ways to create an active learning environment.

Black and Williams state that by carefully choosing appropriate tasks, cues and feedback teachers can vastly improve learning (Black and Williams, 2009). They state that by using “interactive dialogue” teachers can create “formative assessment exercises” but this can only happen when all pupils are engaged in the tasks. Black and Williams suggest that one way to engage the whole is by using the “canonical lesson design” which is now widely being accepted as a signature pedagogy (Shulman, 2005). This involves the teacher posing a “big question” to the class at the beginning of the lesson and then the pupils must work in pairs or groups to answer this question before the teacher conducts whole class teaching on the question, incorporating each group and their perspective on the question.

If we look through the lense of Vygotsky in relation to canonical lesson design, it could be said that it benefits the learner by posing a challenging question and putting them into the zone of proximal development (ZPD). By working in pairs/groups and then with the teacher the children are able to get that support and further their knowledge and understanding of the topic. Pair work can be an excellent way of creating active learning opportunities and can promote positive interdependence and individual accountability among students (Johnson and Johnson, 1989). If we look to theorist Jerome Bruner, much like Vygotsky he was in the constructivist school of thinking. By looking to this we can gain insight into the benefits pair work can have on creating active learning environments that provide children with engaging opportunities for learning. Bruner

suggests that scaffolding, the process of children either working together with a peer more knowledgeable than themselves or with a teacher can aid pupils in pushing forward their knowledge and development.

Developed in 1986 by Frank Lyman, the “Think, Pair, Share” technique uses collaborative teaching. The method is carried out after a teacher poses a question or statement to the class. First the pupils must think about what the teacher has said, then they work in pairs to discuss what each of them has thought about in relation to the question, thus learning from each other’s perspectives. Then the teacher goes around the classroom and asks each pair to share what they have discussed. This technique not only can improve children’s oracy (Ardhy, 2018) but research has also shown it can improve pupils’ critical thinking (Kaddoura, 2013).

Often teachers and other pupils link how often a pupil puts their hand up with the level of confidence and understanding (Patrick & Turner 2004). This can become a problem when it is the same children putting their hands up continuously as they are confident in the subject and often have the correct answer. As a result, other children in the class can begin to become more reserved out of fear of being wrong and insecurity about their intelligence (Howard and Harrison, 2009).

Due to this reason, many teachers have now implemented a “no hands up” rule within the classroom. This technique can work in many different ways. In the book “Teach like a champion 2.0” (Lemov, 2015) they suggest using the “cold calling technique”. This technique, popularized in the UK by Dylan Wiliam, requires teachers to create a safe environment where children are okay with making mistakes (Pollard, 1987). Teachers will choose pupils at random to answer their question and if they do not know the answer or get the answer wrong the teacher can either use this as an opportunity to further expand on the topic or they can move on to another pupil. Although this practice can be very valuable in allowing pupils who often get overlooked to begin engaging, it can also spike anxiety and that is why it is imperative to ensure all pupils feel safe within the classroom. It also creates an environment where children must always be prepared to have to answer questions, therefore they must be engaged with what their teacher is saying (Black and William, 2009)

The 2010 documentary "The Classroom Experiment" facilitated by Professor Dylan Wiliam looks into the implementation of "no hands up" within a mixed ability year 8 class in secondary school in England over a six-week period. The teachers begin using lollypop sticks with pupils' names written on them to randomly choose a pupil to answer their question. During the first week of the experiment the teachers and pupils are apprehensive about the technique, with a few pupils feeling that it is unfair if they do not know the answer and others feeling that if they do know the answer and are not chosen this is unfair. Many of the staff were unsure of the effectiveness of the technique as it caused a few pupils to act out and it meant that they often spent longer on each question.

However, as time went on and the pupils and teachers became accustomed to using the "cold calling" technique, the teachers saw the benefits it had on the confidence of the quieter, more reserved pupils as they became comfortable answering questions. They also saw the pupils who had previously been very eager to answer questions when they knew the answer, becoming more accustomed to not always knowing the correct answer but seeing the value in participating and still trying to postulate an answer.

Research conducted by Dallimore Et al (2006) in a graduate class where the instructor cold-called regularly and graded participation found that participation not only increased but so did the attendee's preparation for each session. The research also found that in this group the self-reported average student comfort levels did not go down when cold calling was introduced. Cold Calling was revisited by Dallimore Et al (2012) and in this study of 632 students in a survey and observation-based study in a higher education setting. This research again found that voluntary participation was increased in settings that used a higher frequency of cold calling.

Another effective alternative to "hands up" that can also lead to effective assessment for learning is the use of miniature whiteboards (mini whiteboards) within the classroom. Research from Lambert et al (2006) found an improvement in engagement for two "fourth grade" classes when mini whiteboards were introduced. Similarly, a study by Elizabeth Catherine Gimbutas (2019) found that through a survey of students within a

“tenth grade” English class, seven out of ten students on average found their engagement was higher weekly after the introduction of mini whiteboards and eight out of ten students found they had higher academic achievement.

Explanation of Case Study

It is imperative when completing any sort of observation and research to adhere to the British Educational Research Associations guidelines for educational research (BERA, 2018). Therefore, the contents of this section of my assignment will be in line with this by ensuring confidentiality and anonymity of the school, teachers, and pupils. All parties recorded for the immersive room gave their consent for the footage to be used by Student Educators.

The school in which the observation was based had 402 pupils on roll as of February 2023, is mixed gender and has an age range of 3-11 (Welsh Government, 2023). The class itself was Year 4 and had 26 pupils within it. The class teacher was present during the immersive room, and he stated that there was a mixed ability on most of the tables, with the exception of the front table on the left. That table had several children who have additional learning needs. They were seated with a Teaching Assistant to provide them with further support. Within the class there were several children who have English as their second language and five of the children within the class joined mid-way through the academic year. It is clear from the clock on the wall in the immersive room recording that the lesson took place between within a morning session.

To put the incident in context, throughout the duration of my observation the children were sat in their seats at their allocated tables. Within the classroom there were five tables each with a different number of children seated on them. The child who I will be focusing on for this observation sat on the back left hand table in the classroom with two other children. I will now be looking into the situation that I witnessed and assessed to be a critical incident.

Within the first five minutes of the video which I will be focusing on, the class teacher had a picture up on the whiteboard of penguins in a cave. We can assume that he had been asking the class a number of questions about the picture. We can infer from this

context that the lesson aim was Languages, Literacy and Communication as the children were verbally making inferences on the picture on the whiteboard and then later writing inferences in their books about different shoes the teacher handed out.

The first question that we saw the teacher ask was “What inferences can we make about the picture on the whiteboard?”. Several children put their hands up and were chosen to share their answers and many were engaged with what their peers were stating. However, I noticed that Child A could be seen rolling their pen around on the table and conversing with another child, clearly disengaged. This continued and several more were asked what they could infer from looking at the picture. Then the teacher said “dwyllo i fyny if you’ve not shared” (hands up) but Child A still did not raise their hand. Due to the number of pupils in the class it would most likely be difficult for the class teacher to remember who has and has not shared their answer and to keep track of who is engaged. Eventually, Child A did put their hand up to read the instructions on the whiteboard and you can see from this point onward they are a lot more focused on the task that the teacher has set up for them.

It is important to note that during the section of the immersive room video that I am focusing on the children do have whiteboards on their tables, but we do not see them using them. It could be inferred that the children used the whiteboards earlier in the lesson, however we do not see them doing so.

If we refer to my research and literature review, we can see that there may be many reasons why the child was not engaged or why they did not put their hand up, whether that be that they did not know the answer, were too shy or that the question simply did not engage them. However, this disengagement and continuous refusal to participate in classroom discussion could be detrimental to the child's future learning if it continued. My literature review highlighted that there are many alternative methods that could be used to the “hands up” method. As this was only a brief look into the classroom, we do not know whether this was a pattern of behavior but in the next section of my assignment I will be looking into steps to take to try and ensure that engagement is high within the classroom.

Teaching and Learning Methods

Having witnessed my critical incident and completed a review of relevant literature I have now formed a wider contextual understanding of the incident and those like it. Critically reflecting upon the incident also includes looking into what methods I will take forward in my pedagogy and teaching. In order to fully understand and assess which methods to take forward it is imperative to investigate both the positives and negatives of each method and the corresponding research into each method.

I will begin the section by looking at the effectiveness of the no hands up method and “cold calling” (Lemov, 2015). As stated in my Literature review this method was introduced in America by Lemov and widely spread in the United Kingdom by Wiliam. Whilst the method has been implemented in many schools across the country, there is not a vast amount of imperial evidence to support the effectiveness of the method within the primary setting. The research that I reference in my literature review (Dallimore et al, 2006 and 2012) are both studies on higher education settings. It is also important to note that they both include observational research which at times could potentially be biased.

However, the 2010 documentary “The Classroom Experiment” that studied the cold calling technique captured the process of both pupils and faculty warming and eventually accepting the use of the cold calling technique. This documentary gave an insight into the potential challenges that can arise from using the cold calling technique; such as pupils disengaging because they felt that it was unfair that they had been chosen when they did not know the answer. It also highlighted the benefits of using the method that the teachers and pupils found. For example, many of the children at the beginning of the experiment rarely chose to put their hands up out of fear of being wrong, however, they stated in interviews that the cold calling method allowed them to gain confidence and see the benefits of participating regardless of whether they had the correct answer.

It is important to take into account that this was not imperative research conducted by a team of researchers. The purpose of the documentary whilst partly was to see the

effects of the methods was also for entertainment purposes therefore, we do not know the validity of the claims made within it.

Another potential negative of the Cold Calling technique is that children may feel anxious or nervous to answer when called upon as they do not know the correct answer. However, as stated in my literature review, in creating a safe environment for the children within the class where they do not feel judged for getting the answer wrong and it is instead used as an opportunity to delve further into the topic this issue could be solved (Pollard, 1987).

Another technique discussed within my literature review is pair and group work in order to answer questions. The work of key theorists Vygotsky and Bruner advocates for the advantages of children working together in order to further their development. It is also common practice in many schools to use the “Think, pair, share” technique, developed by Frank Lyman of the University of Maryland in 1986. The research I found pointed towards the conclusion that “think, pair, share” helps to develop children's critical thinking skills along with providing them with an opportunity to use collaborative and active learning. This technique can be viewed through the constructivist lens and we can see that it provides children with an opportunity for scaffolding from other pupils who may know more about the topic than them. However, a potential downfall of this is that two pupils who are both not knowledgeable may be paired together but this can be remedied by the teacher who is a more knowledgeable other providing them with support once they have shared.

The final method I will be looking into in this section of my assignment is the introduction of Mini Whiteboards. In my literature review I discussed research into Mini Whiteboards that claimed they both increase engagement and academic achievement. It is important to note that the research done by Gimbutas (2019) was in a secondary education not primary, however the research by Lambert Et AL (2006) was done into primary education and clearly proved that within their case study engagement was improved.

Discussion

After analyzing the different techniques and methods, I believe that the critical incident that I witnessed could have benefited from a number of different methods being implemented into the classroom. As motioned in my description of the incident, the pupils all had whiteboards on their desks, however we did not see them use these. I believe the implementation of these whiteboards when posing the question “What can we infer from the picture” could have greatly benefited Child A. This may have allowed for them to engage with the question more as the expectation from the teacher for pupils to have something written and the pressure being taken away for individual answers may have motivated Child A.

Another method that may have benefited the situation and prevented the disengagement is the use of pair work. As stated, Vygotsky believed that pair and group work can provide children with an opportunity to work collaboratively together to get out of the Zone of Proximal development. If implemented within the classroom that I witnessed while viewing my critical incident it could have remedied any misunderstanding that Child A may have had that resulted in them not raising their hand.

In my own pedagogy I can understand now from completing my literature review and witnessing my critical incident, the importance of using a varied approach when teaching. Going forward I hope to use a number of different techniques within my teaching because the most effective teaching happens when teachers are continuously “reflecting on which teaching strategies will best support learning in a given context, and inquiring about the impact of this on learners” (Welsh Government, 2020). This assignment has highlighted to me the effect that active learning can have on engagement and that participation can further a child's learning and development on a certain topic. It has also aided in the understanding that as the Curriculum for Wales states within the 12 pedagogical principles good learning and teaching also encourages collaboration and accesses previous knowledge and experience and engages interest (Welsh Government, 2023)

Conclusion

The purpose of this assignment was to engage with critical thinking surrounding a critical incident to and begin to understand and look into relevant research on a given topic. I believe that throughout this assignment I have begun to understand the importance of reflective practice in having a sound pedagogy. I also believe this assignment has begun to equip me with the skills and foundations for completing academic research into education.

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