

# A critical evaluation and the 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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## **1. Abstract**

This report provides an analysis and evaluation of a critical incident in a mathematics classroom, examining issues of classroom management and student behaviour. A case study is presented based on recorded classroom observations of a year 8 class in a Welsh school. The incident involves a student displaying signs of distractibility and excitement, who is then selected to hand out classroom supplies, completing the task promptly. The literature review synthesises research on best practices in classroom management, emphasising the benefit of proactive strategies like establishing structure, redirecting misbehaviour, fostering relationships and reinforcing positive conduct. In the critical reflection, the teachers' practices are analysed in light of evidence-based recommendations. Whilst the teacher appears to utilise effective strategies per scholarly consensus, additional data would be required to fully value the assumptions, intentions and impacts made. The conclusion further acknowledges that continuous study across an extended timeframe is warranted to determine whether the teachers' methods are consistently effective, intentional and if the students' behaviours are responsive. However, the report aims to demonstrate the value held in critical reflection for continually improving classroom management and responsiveness to student needs.

## **2. Introduction**

Effective classroom management is essential for fostering positive student outcomes and a productive learning environment. However, managing student behaviour and diverse needs can be incredibly challenging for educators. Critical reflection on daily classroom interactions and seemingly minor incidents can provide valuable insights into improving the practice. The critical incident examined in this report is a case study selected based on Tripp's idea that such incidents constantly occur - only becoming critical when critically reflected upon (Tripp, 2011, p. 8). This philosophical framework has significant implications to those who adhere to its tenets; by observing classroom activities in this manner, a rich plethora of reflective opportunities is opened up to a teacher when compared to those that wait more of an obvious incident to present itself. This observational skill provides a teacher with far more opportunities for reflection, allowing them to actively hone their skills as an educator.

### **2.1 Formulating a Critical Incident**

A common misconception regarding critical incidents is that they are inherently negative however, it has been established that this is not the case. A critical incident can be mundane at a surface level, in fact this is often the case. This argument can be taken even further to suggest that critical incidents don't actually exist in isolation but are instead created under observation. This thought process implies that it is not the actions involved that make an incident critical at all but rather it is a person's subjective ability to derive meaning from an incident that makes it critical. Therefore, it can be reasonably stated that a critical incident is formulated and not naturally occurring (Tripp, 2011).

The process of critical reflection represents a vital mechanism for professional growth and the continuous improvement of teaching practices. As established by Schon in 1983, reflective practitioners can enhance their work by developing a heightened sense of awareness of their own actions, subsequently adjusting their behaviours to prevent any future shortcomings (Schon 1983). For educators, frequently reflecting upon their classroom practice against evidence-based standards allows teachers to challenge longstanding perspectives, uncover blindspots and strengthen their pedagogical skills. Critical reflection takes a practitioner far beyond just thinking about teaching. Critical reflection is instead an ongoing and continuous process that empowers teachers to readily question and revise their understanding and skills. By modelling a rigorous reflective approach, teachers can also promote metacognition and reflective skills in their students. Ultimately, critical reflection enables the level of self-critique and flexibility necessary for responsive student-led teaching.

## **2.2 Methods of Critical Reflection**

Engaging in purposeful critical reflection requires an intentional, structured process to derive meaningful insights from experiences. Researchers emphasise mindful approaches that move beyond superficial review to reexamine events more objectively. Dewey (1993) characterised critical reflection as a form of investigative problem solving sparked by one's own doubt or uncertainty. It involves carefully examining the origins and impacts of thinking to expose underlying assumptions (Steier, 1991). Mezirow (1981) situated critical reflection in psychology as a means to identify and evaluate pre-existing conceptions that shape perspectives. Researchers concur that the technique holds value for elucidating often subconscious influences on behaviors and choices (Birch & Miller 2000).

While critical reflection is praised for its merits, it does not come without risk. If the process of critical reflection is not well practiced or understood, an individual could easily take it to the extreme and find it debilitating rather than beneficial. Excessive self-critiquing can become counterproductive, creating "paralysis by analysis" that inhibits decision making and action. Reynolds (1999) took this argument a step further and questioned whether or not there was a place in education for critical reflection - arguing that it forces practitioners to question what is often accepted as "common sense" by the majority, resulting in time wasted and significantly reducing its effectiveness in practice. Working within a well-developed critical reflection framework can assist in off-setting the likelihood of negative spirals within the critical reflection process.

Tripp (2011) described a reflective framework composing of three phases: interpretation of needs, meeting of needs, and review strategy and re-assess needs. Each phase is composed of actions that the practitioner must move through to graduate to the next phase of reflective practice. For example, the "interpretation of needs" phase is composed of two actions; observe situation and create critical incident. To move from the "interpretation of needs" phase to the "meeting of needs" phase, the practitioner must record their observations of an incident and then construct a critical incident based on their observations. The purpose of the first phase is to identify actions and events within an incident. The actions and events do not need to be substantial but should be significant when held under scrutiny. The second phase is used to research and develop a change in response to the initial response. Finally, the third phase consists of putting what has been developed into practice, allowing the whole process to be repeated and refined if needed (Tripp, 2011).

## **2.3 Interpretation of needs**

The critical incident analysed in this report is a case study taken from a pre-recorded maths lesson provided by the University of Wales Trinity Saint David. The recording is of a year eight class, in a Welsh speaking school. All participants from the recording will remain anonymous. Instead of names and pronouns, persons of interest will be assigned a placeholder name and pronoun. The recording is designed purely for academic purposes however, the actions of the teacher and students are genuine.

The teacher, Miss Z, began the lesson by welcoming everyone into the classroom at the door and by making them aware of the filming taking place. Several of the students react to the presence of the camera with a brief gesture of some kind. One student, Student A, displays a greater level of interest in the camera than their peers, being the only one to verbally greet the camera with a "hi" and a wave. Whilst sat, Student A is observed to be more fidgety and excitable than their peers. Once the students have all entered the classroom, Miss Z settles them down and asks who would like to help give out the whiteboards - Student A raises their hand quickly in response, alongside one other pupil, and is selected to assist Miss Z in distributing the white boards to the rest of the class. Student A distributes the white boards promptly and without fuss. Once all the white boards and pens have been distributed, Miss Z returns to the front of the class and then quizzes the students on a series of "what comes next?" questions regarding number series, a topic they covered earlier in the week. The students are all observed to engage with the lesson using their white boards. Miss Z praises those that got the first question correct.

Initial observations of the critical incident would suggest that Student A demonstrates common disruptive behaviours, such as being distracted and excited before the lesson has begun. First assumptions made were that Student A could be problematic. However, Student A demonstrated an eagerness to engage with the class by volunteering to assist Miss Z in handing out the whiteboards, successfully completing the task without the need for intervention from Miss Z. Throughout the observation, Miss Z was calm and in control of the lesson.

### **3. Literature Review**

Classroom management is a critical component of effective teaching, with research consistently showing it is one of the most influential factors impacting student engagement, motivation and academic outcomes - even above variables like content quality and teacher experience (Wang, Haertel & Walberg, 1993). Given this substantial impact, significant research has focused on identifying evidence-based strategies and best practices to maximise positive effects on students. An extensive body of literature examines approaches to managing behaviour, designing the environment, and building student-teacher relationships, as well as connecting these factors to motivation, cooperation, and performance. This literature review investigates current classroom management research and its links to student behaviour. It provides an overview of key strategies, deeper analysis of predominant techniques used, evaluation of resultant impacts, and assessment of real-world applicability. The goal is to identify scholarly consensus on best practices while noting areas needing further research.

Classroom management refers to the wide variety of skills and techniques teachers use to oversee student behaviour, establish order, implement classroom procedures and foster a classroom climate focussed on learning. Studies emphasise that effective classroom management is conducive to effective learning in children and can be one of the most influential factors in bolstering student motivation, interest and academic performance (Marzano, 2003).

#### **3.1 Student engagement**

Student engagement is a key component of an effective learning environment. When students are actively engaged in learning, they are more likely to participate in classroom activities and retain information. Perhaps most importantly, studies show that there is a strong correlation between student involvement and positive outcomes such as satisfaction, persistence, achievement and social engagement (Trowler, 2010). A teacher can promote student engagement through varied and active learning strategies that capture student interest such as collaborative group work, hands-on activities, incorporating real world context and examples, and effective integration of technology where appropriate (Parsons & Taylor, 2011). Some examples of these strategies include: using “think, pair, share” tasks to promote independent thinking, collaboration and communication skills. Meanwhile, certain subjects can use more hands-on practical activities to promote engagement - in science, there are a plethora of experiments that teachers could incorporate into their lesson plans to aid in promoting student engagement. The key to using these types of activities is to pair them up with curricular goals and student capabilities. Practicals that too difficult and lack clear instructions can inadvertently cause students to become disengaged. A side effect of improved levels of engagement is that students become far less likely to engage in misbehaviour, easing the strain of classroom management on the teacher (Freiberg, Huzinec & Templeton, 2019).

#### **3.2 Problematic behaviours**

Disruptive behaviours, non-compliance and aggression in students can be detrimental to overall student learning within a classroom. Typical disruptive behaviours included: public displays of rudeness and disobedience in the face of the teacher, talking out of turn, failure to submit assignments, daydreaming, and using electronic devices such as phones (Sun & Shek, 2012). Reducing the frequency in misbehaviour can be crucial in maintaining a productive learning environment - misbehaviour can consume a lot of time and attention from teachers and peers. This time can not be made back during additional classes as many teachers are already time poor. Furthermore, these behaviours extract a heavy toll on the wellbeing of teachers. If let unresolved or, not managed effectively, misbehaviour can be problematic enough to drive newly

qualified and experienced teachers out of the profession. In fact, studies on why so many teachers do not persist with the profession have cited classroom behaviour as a direct cause (Marzano, 2003).

Implementing proactive classroom management strategies can help reduce the occurrence of disruptive student behaviour. As stated above, a well designed and engaging lesson plan can help reduce the opportunity for disruption by raising the overall level of student engagement. However, there are proactive strategies that can be implemented to redirect and subdue misbehaviour before it happens. One such strategy is for the teacher to remain in close proximity to the students who are prone to disruptive behaviour, this helps keep those students calm and less likely to have outbursts. In addition, a teacher can frequently and publicly use forms of positive reinforcement to solidify positive behavioural traits over more negative ones. The teacher can also establish clear rules and expectations early on in the year, leaving no room for students to question protocol. In establishing rules, it is important for the teacher to remain consistent throughout the year so that specific students do not feel targeted. Finally, a teacher can include student parents in behavioural management - this can be done virtually or in person. Several schools now use online resources accessible to parents so that they can review their Childs behaviour as appropriate (Sun & Shek, 2012).

Sometimes, misbehaviour cannot be avoided and the teacher must implement a reactive classroom management strategy. Unlike proactive management, reactive management strategies are deployed after an incident involving misbehaviour occurs. Traditionally, punishment-based strategies have been used to quash misbehaviour. However, modern findings suggest that punishment-based approaches can have negative repercussions on student wellbeing - often leaving students feeling alienated and damaging the student-teacher relationship. Alternative suggestions recommend: teachers remain calm during incidents, do not reprimand students in front of their peers, have any conflict resolution conversations in private and give students options. This is done to save students from any embarrassment in front of their peers and to prevent the situation from escalating. It also empowers misbehaving students to self correct while maintaining a caring classroom climate (Clunies-Ross, Little & Kienhuis, 2008).

### **3.3 Academic achievement**

Research clearly demonstrates connections between the quality of classroom management and student academic performance. Studies show that classrooms with consistent routines, orderly environments, and engaging instruction have higher rates of student learning and test scores (Adeyemo, 2012). This effect appears to be cumulative with the strategies already discussed - students in well managed classrooms experience more engaged academic time and, those with good student-teacher relationships are more taking academic risks that promote learning.

### **3.4 Proactive vs reactive**

Proactive management involves a teacher being able to anticipate issues and taking steps to prevent disruptions proactively whereas, reactive strategies employ responses after an incident has occurred. While it is apparent that proactive methods can reduce the frequency of misbehaviour and increase student academic outcomes, it is not without its' concerns. Proactive strategies can be largely time consuming and energy intensive, requiring teachers to constantly be vigilant and having to display an excessively positive persona when faced with distressing situations. When taken too far, the rigidity of rules placed upon students could lead to authoritarian tendencies, damaging student autonomy. The act of striving for a "perfectly" managed classroom could result in teachers developing an overly narrow scope of punishment - in the absence of regular and severe behavioural issues, a school will have more resources to focus on minor misbehaviours. Leading to stricter punishments for otherwise excusable offences.

Reactive management predominantly revolves around the teacher being able to remain calm and deescalate misbehaviour after it has occurred. This style of management also comes with its' own set of pitfalls - a teacher that were to employ primarily reactive strategies could find themselves overwhelmed by misbehaviour, as it does not actively prevent misbehaviour from occurring. A teacher may also find that a large portion of their lesson time is being taken over by reactive

scenarios that off-topic. This could easily lead to reactivity-fatigue, a state where reacting to issues becomes immensely draining on a teacher, at which point burnout becomes a serious risk. Reactive responses can become one-dimensional in nature as they only happen towards the tail end on incident. Without focus on the factors leading up to a reactive response, there is very little content to reflect and improve upon.

Overall, it is apparent that a healthy mixture of both reactive and proactive classroom strategies must be employed. No teacher can adhere to just one philosophy of classroom management without running the risk meeting the shortcomings associated without one or the other.

### **3.5 Conclusion**

It is apparent that teachers play a critical role in setting the tone of a classroom. By intentionally designing routines and procedures, arranging the physical environment, maintaining open communication, and reinforcing positive behaviours, teachers lay the foundation for students to thrive or fail. Mastering classroom management does require time, consistency and a willingness to self-reflect and adapt. It is one of the most significant hurdles for new teachers. Yet the research continually confirms that making classroom management a priority will enhance the learning experience for both the student and teacher.

While studies point to best practices, it is also clear that classroom management needs to be responsive to the specific and unique needs of each learning community. There is no one size fits all approach. It is important that teachers utilise evidence-based strategies as they deem appropriate based on their own judgements and perspectives. It is also important that the strategies utilised fit within the teachers own preferred style, so that it feels most natural and easy to incorporate. This shift in view on classroom management is still ongoing and much more research is needed to investigate how variables such as age, subject matter, diversity factors and learning differences impact classroom management. There are also concerns regarding the appropriateness of incentives, relationship boundaries and approaches to misbehaviour warranting further investigation. However, the existing knowledge base does provide powerful guidance that teachers should leverage where possible.

## **5. Critical Reflection**

The teacher, Miss Z, utilises several proactive classroom management strategies throughout the observed lesson. According to Simonson et al. (2008), greeting students at the door helps establish a positive classroom climate and reduces hyperactivity as students enter. This teacher effectively utilises this recommended strategy by welcoming each student warmly upon arrival.

Recognising student A's high energy level, the teacher channels it constructively by allowing them to distribute supplies for the lesson. Gettinger and Kohler (2006) advise redirecting excited students into helpful tasks to prevent off-task behaviours. The teacher also promotes engagement by using interactive whiteboards, a common assessment for learning tactic.

Providing positive reinforcement through praise aligns with Emmer and Sabornie's (2015) suggestions. The teacher maintains a calm presence as advised by Marzano (2003) to avoid escalating issues. Miss Z does not draw unnecessary attention to Student A's behavioural differences, following Brophy's (2006) caution about sensitivity to students' needs. Finally, allowing Student A to work independently and carry out a task to assist in preparing for the lesson demonstrates Miss Z's trust in Student A, per Alderman and Green's (2011) relationship tips.

Overall, this teacher's proactive use of evidence-based strategies such as those recommended by Simonsen et al. (2008) and Marzano (2003) enables Student A to participate appropriately. Her classroom management aligns with best practices identified in scholarly literature. However, this does not mean that Miss Z's approach is without flaw. As was discussed in the literary review, if Miss Z were to use exclusively proactive methods of classroom management, unexpected issues may arise.

By selecting Student A to distribute classroom supplies, Miss Z could inadvertently draw more attention to their excitability and differences from peers. If this pattern of selection were to continue throughout future lessons, Miss Z could form a selection bias and become unaware of the true ability of her class, leaving disengaged students coast through in a state of disengagement. It is also unknown whether or not Miss Z is making assumptions about Student A's behaviour without sufficient data, observable excitement could stem from various causes unrelated to their typical behaviour. For example, it may have been Student A's birthday that day, making them more excited than normal. To better determine whether or not this level of excitement is typical for Student A, much more observations would be required. It is therefore difficult to determine whether or not Miss Z's decision to select them for the task of distributing supplies originated from an evidence-based strategy, knowledge of prior behaviour (i.e maybe they're normally a well-behaved reliable student) or random chance. Alternatively, Student A's behaviour may have been well managed thanks to the strategies employed by Miss Z, and further tactics may even improve Student A's behaviour. For example, Miss Z could implement a seating plan that places them closer to the front of the class with a more research supported seating arrangement, allowing Miss Z to more readily be in close proximity and to minimise peer-peer distraction (Tobia, Sacchi, Cerina, Manca & Fornara, 2020).

## **6. Conclusion**

In evaluating the critical incident in question, it is apparent that Miss Z uses a plethora of evidence-based classroom management strategies to maintain order and structure throughout her lesson. Miss Z clearly has a positive relationship with her students, built on mutual trust and respect. However, it is difficult to determine without further analysis and discussion whether or not Miss Z's methods are intentional or developed through her own observations of more experienced teachers. In addition, the introduction of a large camera to the classroom environment may have been sufficient enough change to alter the behaviour of the children participating in the study, making it difficult to determine whether or not their behaviour could be considered genuine or typical. Therefore, more studies using this method of observation should be carried out across a larger timeframe to determine whether or not the impact on changing environment is significant to effect the behaviour of the students involved.

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