

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

In this case study I will focus on an event that I witnessed within school X. I shall academically interrogate various pedagogical theories and teaching methods that I understand to underpin the event and examine my own ideas, thoughts and assumptions, in order to successfully identify further learning that will support the ongoing development and improvement of my own teaching practice.

The purpose of a case study is to research a specific person, group or incident in order to be able to learn or conclude something useful that could be applied more generally. The method involves detailed study and analysis in order to draw wider conclusions based on data and evidence. (Crowe et al. 2011)

I will use David Tripp's Critical Incident methodology as a framework to examine the consequences and underlying pedagogy of a 'critical incident' whilst also reflecting on my own choices, values and judgements when selecting and reflecting on this incident to interrogate my own interpretations and understanding of teaching and learning in general. It is my understanding that Tripp intended that his book, *Critical Incidents in Teaching: Developing Professional Judgement*, support the teaching profession as a whole to maintain their interest in and study of relevant, specialist theoretical knowledge as the basis for sound professional judgements with the aim that teachers "will understand their practice so well that every child will receive an education every aspect of which meets their own particular needs" (Tripp, 2011, p.25)

The role of Critical Reflection

Reflective Practice is a means of professional development “founded on evidence of what works” and recommended by the Welsh Government (2019). Reflective practice involves “opportunities to reflect critically and candidly on current practice, and being open to others’ reflections on how practice can be improved or developed” (Welsh Government, 2019). Developing and practising this kind of academic interrogation is a requirement for all school professionals and it outlined in the Professional Standards for Teaching and Leadership (Welsh Government, 2019).

In 2014 the Welsh Government commissioned a fundamental review of the curriculum in Wales. Professor Graham Donaldson CB outlined his team’s findings and recommendations in the paper *Successful Futures* (2015) which outlines four purposes that are the foundations and north star of the entire curriculum. Donaldson links all aspects of teaching, including professional development, to the four purposes. The review clearly outlines what ‘good teaching’ looks like. Donaldson suggests that excellent teaching combines subject expertise with an understanding of the pedagogical principles and methods suited to a range of contexts and situations. His approach warns against a reliance on any one teaching method rather requiring the teacher to exercise good judgement in employing a range of appropriate methodologies in the appropriate context. A good teacher should rely on a sound understanding of the impact of social, physiological and psychological influences on child development in order to exercise the craft of classroom management for the benefit of all learners. Reflective practice is one aspect of refining the current and future education workforce to implement the new curriculum successfully:

“[Implementation] requires high-quality teachers with a sound understanding of the ‘why’ and ‘how’ of teaching as well as the ‘what’. The implications for the formation and subsequent growth of teachers as reflective practitioners are considerable.”

(Donaldson, 2015, pp 71)

Schools as Learning Organisations (SLO) was launched in 2017 to support schools to prepare for the new curriculum, including a commitment to “creating and supporting continuous learning opportunities for all staff to ensure their practice is critically informed and up to date” (Welsh Government, 2019). Teachers are expected to be reflective practitioners who research contemporary and historical pedagogical theory and practice to inform and improve their ongoing professional development.

Observation: School & Class context

I shall adhere to BERA guidelines and accord the institutions and individual participants mentioned, their rights to confidentiality and anonymity. Accordingly I shall refer to the school and teacher in my observation as teacher X and school X.

The observation took place in a mixed gender comprehensive school in Carmarthen in Cynfor Sir Gar, Carmarthenshire County Council hitherto referred to as School X. There are 1331 pupils on roll between the ages of 11 and 18, 50.34% are male and 49.66% are female. Just under 10% of pupils speak English as an additional language, 6.4% are first language Welsh speakers. Just under 25% of pupils have SEN status, the school has a dedicated inclusion centre for pupils with additional needs. 22.16% of pupils receive free school meals (FSM). As the last Estyn inspection took place in 2014 I requested the up-to-date data directly from the assistant head teacher at school X. A copy is included, with sensitive data redacted, in the appendix (appendix B).

The critical incident I intend to examine was observed by me during a pupil trial of a group of year 7 students. The lesson was within the Health and Well-being Area of Learning and Experience (AoLE), for a class of girls, and took place in the school sportshall where gymnastics and safety equipment had been set out in advance. The equipment included spring boards, trampettes and crash mats which were arranged in separate areas throughout the large room, allowing plenty of space between each area.

The lesson started with a warm up, the teacher demonstrated the movements and joined the pupils as they moved around the room and engaged in the exercises. The teacher was

encouraging and enthusiastic and all of the pupils appeared to be engaged and enjoying themselves.

Critical incident linked to Donaldson's Four Purposes

The critical incident itself was the use of scaffolding by teacher X to support the pupils in achieving the aims of the lesson. The aims of the lesson were to know how to use various gymnastics equipment, to be able to use that equipment safely and accurately, and to understand how to incorporate that equipment effectively and imaginatively into a gymnastics routine.

Overall I felt the lesson was carefully designed and successful in its outcomes. The welfare of the pupils was well safeguarded and there were opportunities for pupils to build on previous learning, take measured risks, develop new skills and achieve satisfying outcomes. I felt that three of the four purposes were achieved within the lesson.

- Ambitious, capable learners who set themselves high standards and seek and enjoy challenges and are building up a body of knowledge and have the skills to connect and apply that knowledge in different contexts.
- Enterprising, creative contributors who think creatively to reframe and solve problems, identify and grasp opportunities and take measured risks.
- Healthy, confident individuals who take part in physical activity, face and overcome challenges and have the confidence to participate in performance.

(Welsh Government, 2019)

Teacher X scaffolded the learning by introducing the equipment and eliciting any prior knowledge, then demonstrated the safe use of the equipment before allowing the pupils time to practise its use in small groups, differentiating support to correct or make suggestions, and encouraging the more knowledgeable pupils to support their less experienced peers.

The teacher provided a physical example herself of how to use the equipment and then offered roughly 15 minutes of the lesson for groups of pupils to practise on each item of equipment. She moved around the room, watching each pupil carefully and interjecting with advice, a repeated

demonstration, encouragement or positive affirmation depending on the individual pupil and circumstance. As they practised with the equipment I felt the pupils were able to satisfy a number of the Statements of what Matters within two of the AoLE, Health and Well-being and the Expressive Arts. By engaging in physical activity in a safe and encouraging environment the pupils were experiencing the health-promoting benefits of movement on physical health and well-being.

From this understanding, learners can develop positive, informed behaviours that encourage them both to care for and respect themselves and others. These behaviours support learners' sense of self-worth, their overall mood and energy levels. Learners will be encouraged to develop the confidence, motivation, physical competence, knowledge and understanding that can help them lead healthy and active lifestyles which promote good physical health and well-being.

(Curriculum for Wales. Welsh Government 2019)

Within the Expressive Arts AoLE, by engaging with genres, techniques, tools, materials and practices pupils were provided with the opportunity to grasp opportunities, take managed decisions and measured risks and become curious and creative individuals.

Creating in the expressive arts embraces a range of activities including planning, drafting, designing, making, choreographing, shaping, composing and editing. Creating requires learners to develop and demonstrate control of a range of skills and an application of knowledge.

(Curriculum for Wales. Welsh Government 2019)

Literature Review

Scaffolding is linked to Constructivist, Behaviourist and Humanist pedagogy; combining child centred, compassionate practice with high expectations, where the ultimate goal is valuing learning so that children develop into enthusiastic life-long learners.

Scaffolding refers to temporary structures used in construction to support the building process and within education it refers to temporary support provided for a learner as they address a

new challenge or learn a new piece of information. Scaffolding as a technique can involve a variety of methodologies including questioning, thinking aloud, modelling or demonstrating a task and breaking tasks into manageable stages. Stone described it as “providing temporary assistance to children as they strive to accomplish a task just out of their competency, adults are said to be providing a scaffold, much like that used by builders in erecting a building.” (Stone, 1998)

According to van de Pol, Volman & Beishuizen, (2010), the key elements of this methodology are the temporary and contingent nature of the teacher’s support, leading to increased pupil responsibility for the task or learning. As scaffolding can relate to skill development, cognition and metacognition, scaffolding is differentiated to the needs of the child and as the child ages and progresses. Scaffolding often refers to an individual teacher’s actions; however, I suggest that it is also reflected in the education system as a whole, as a pupil progresses from school to further or higher education, direct support is gradually reduced or withdrawn as a pupil learns to rely on their developing skills and abilities and manage the responsibility for their own learning.

I suggest that the contingent nature of scaffolding roots it in Constructivist, Behaviourist and Humanist theories. The teacher determines the pupil’s ability or level of understanding and adapts the learning to a level ‘just beyond’ the current abilities or understanding of the child.

Lev Vygotsky developed the theory of Zone of Proximal Development (ZPD) to describe the process by which a child develops understanding with the support of a skilled practitioner. ZPD indicates the difference between the actual development level of a child and what a child can achieve with the support of an adult or skilled partner.

“It is the difference 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, pg 33)

ZPD is underpinned by Piaget’s research into child development, recognising that child development is determined by physiological maturation and interaction with the environment. Piaget proposed that a child’s knowledge (or schema) evolves as they age, involving

increasingly sophisticated and abstract levels of thought, building on the previous stage. This understanding allows a teacher to interact with a child based on an understanding of their actual developmental level, which can be roughly assumed by their age. Although this theory underpins a common approach throughout the world to educating children in groups according to their age, the limitations of Piaget's theory has been recognised. Jerome Bruner challenged the notion that child development is strictly age-dependent or invariant, recognising that many additional factors affect child development.

“...there is no unique sequence for all learners, and the optimum in any particular case will depend upon a variety of factors, including past learning, stage of development, nature of the material, and individual differences.”

(Bruner, 1966, pg 49)

This appreciation for the child as an individual with unique experiences and needs is central to Humanist learning theory. Abraham Maslow suggested that people's basic needs such as shelter, food, warmth, and safety must be met in order to be able to pursue more emotional and social needs and desires. The desire for self actualisation is the pinnacle need that can only be pursued once all other needs are met. Therefore a child can only desire to learn if their physiological, security, social, self esteem and relationship needs are already being met. While some children come into the classroom ready and potentially eager to achieve self actualisation, others must contend with the absence of any number of the more basic needs which impacts on their capacity to engage or perform in school. A teacher can aim to address those needs through differentiated scaffolding as well as other methodologies aimed at addressing the unique needs of that child.

Behaviourism also recognises the impact of external factors on a pupil's capacity to learn and promotes the importance of observing and responding to pupil behaviour (including verbalisation) to assess and monitor comprehension and progression. A pupil's choice to interact with the learning on offer could be significantly impacted by external factors that a teacher could seek to manage and adapt to create a learning environment that might encourage or otherwise support a pupil's choice to engage. Scaffolding involves observing, monitoring and responding to a pupil's behaviour to promote productive and responsive behaviours, to promote the choice to engage in learning and the self confidence to be ambitious and take personal responsibility.

“Is the ultimate explanation for a student's performance inside the student or in the actions of the teacher? ... if we assume that a person's actions are largely influenced by environmental events, much of the responsibility for student learning rests with teachers. When students are not learning, teachers need to reexamine their own actions.”

(Williams, 1999, pg 44–60)

Contemporary literature includes scaffolding as a core aspect of good teaching (Rosenshine, 2012), (Thompson, 2017). Allison and Tharby describe supporting children to reach achievable yet ambitious targets, where the teacher sets expectations that challenge the child while managing any risks of frustration or disengagement due to difficulty. The task and a teacher's support is carefully adjusted to support the child through what they call the 'struggle zone'. The child is faced with a significant challenge that requires thought and consideration without the stress of cognitive overload. “The skill of the effective teacher, therefore, is to push pupils just far enough so that they are in a productive struggle, but not so far that they drown in a sea of panic.” (Allison and Tharby, 2015, pg16). The skills required involve monitoring of behaviour and responses, anticipation of frustrations and dynamic adaptation to deliver challenging yet manageable learning. The importance of knowing, understanding and reacting to pupils as individuals and respecting and promoting pupil responsibility within a shared and interactive process is key.

Graham Nuthall carried out contemporary research within schools to monitor pupil learning. Data collection involved microphones to capture both the public and private talk of pupils to monitor the successful adoption of new concepts but also the development of misconceptions. Nuthall's research found that pupil learning is highly individual and significantly impacted by environmental factors. Commonly pupils would be learning different things from the same lesson “because they begin the activity with distinctively different background knowledge and experience the activity differently.” (Nuthall, 2007, pg 55)

Scaffolding is therefore an important means of differentiating learning to suit the age, needs and circumstances of all pupils in a class. The argument for doing so is, in my view, self-evident from a moral position, however there are proven societal benefits from ensuring all children are able to access meaningful and challenging learning framed within a purposeful curriculum. John Hattie reflects my own views when he makes the point that education has the power to...

“...increase tax revenue, reduces taxes paid into public health, and decreases criminal justice and public assistance costs, plus there is clear justice in providing opportunities to pupils such that they can enjoy the benefits of greater income, health, and happiness.”

(Hattie, 2012, pg 4)

I feel very hopeful that the four purposes of the new Welsh curriculum are an ideal structure for teachers, who want the best futures for their pupils, to build their practice around. The four purposes capture a portrait of an ideal citizen who is empowered to strive for self actualisation, who enjoys the satisfaction of playing a contributive part in an open and inclusive society, who is healthy, self confident and fulfilled. All children should have the opportunity to embody the four purposes. I recognise that this ideal can feel utopian to some, to those experiencing significant trauma or adverse experiences it might feel impossible. However, my view is that part of our role as educators is to be ambitious on behalf of our pupils, to nurture and develop confidence and resilience so that pupils can appreciate the benefits of learning, and understand and accept responsibility for that as they move on from school.

A common human capacity is to successfully avoid cognitive dissonance by turning away from evidence that clashes with our deepest convictions. I recognise that much of my enthusiasm for the new curriculum and for the pupil centred pedagogical theories that underpin scaffolding is founded on my own biases and worldview. However, my research uncovered little to conflict with this viewpoint within contemporary literature. My practical experience teaching year 7 pupils for one week has already highlighted the significant impact class size has on a single teacher's ability to effectively respond to each child's particular needs. While meta analyses generally dismisses the correlation between class size and pupil attainment, more complete analysis recognises the anecdotal and frequently expressed experience of teachers; that class size affects their ability to adequately respond to all children's needs.

“Large classes can present profound problems for teaching, especially where there is wide diversity in pupil attainment levels. It adversely affects the amount and quality of individual support and feedback, the setting up of practical and investigative tasks, and time for marking and preparation. It often leads to more whole-class teaching than teachers would like.”

I recognise that my ambition to be child centred and alert to each child's unique needs could be challenging in the context of large class sizes, especially as an NQT without the classroom experience to inform anticipation of misunderstandings or frustration, and accurate dynamic judgements. However, as a product of a successful education and family life, I am empowered to trust in my capabilities and capacity to learn, adapt and improve. I trust that through research, carefully managed experimentation and reflection I will be able to support and scaffold pupils of Wales to embody the four purposes and contribute to a healthy, productive and sustainable society.

Reflection, evaluation and next steps.

During this opportunity to observe classroom teachers in action my intention was to focus on positive interactions. I witnessed some elements of teaching that I regarded as less effective, from observing pupil behaviour and interaction, but my focus was on what went well.

Tripp's method of reflecting on critical incidents involves initially selecting the incident, describing what happened and then analysing what made it happen. I have used a set of Tripp's questions, "practical, diagnostic, reflective and critical" (Tripp, 2011, pg 26). The next stages are reflective and critical where I examine if the incident is positive and just and if so why and for whom.

My impression is that teacher X successfully scaffolded the introduction of new equipment to the pupils in such a way that all of the pupils were able to achieve the aim of the lesson and incorporate the equipment into a gymnastics routine. I did not observe any pupil who was not engaged or actively achieving the lesson objective and while it is desirable that all pupils are offered opportunities to be challenged; equity requires that no pupil is unable to achieve the basic lesson objective. For this reason I reflect that the incident was positive and just for the pupils involved in the lesson, to be involved in an equitable lesson is itself a positive learning opportunity. However, I do also recognise that in order to offer all pupils the opportunities to

progress it is important not to miss any opportunities to challenge pupils who are progressing more quickly.

While establishing prior knowledge teacher X was able to gauge which pupils had some experience or knowledge and which might need additional support. This information guided their differentiated scaffolding during the lesson however, this information could also have informed the grouping of the pupils, facilitating pupil to pupil learning and providing opportunities to learn through playing different roles in teams effectively and responsibly. Although teacher X did not take this opportunity, and I recognise there could be a reason I was unaware of, on reflection this has highlighted to me the importance of recognising and using all opportunities to provide differentiated challenges, supporting the pupils to scaffold and support each other. The more experienced or able pupils gain confidence and leadership skills while those who need additional support receive it. Based on this reflection I intend to plan opportunities for team work within my lessons, using the methodology as scaffolding and differentiated opportunities for a range of pupils in mixed ability classes.

I have found the process of reflecting on a critical incident both difficult and rewarding. While I feel I am fairly used to the idea of metacognition in my previous professional life and my personal life I have not been used to structuring my reflections. However I can see the value in using a methodology such as Tripp's to guide a trainee teacher because this kind of reflection is awkward and somewhat cumbersome to start and needs practice to become a more natural part of professional practice.

Throughout my research I found common reference to the aspects of teaching that can be problematic, coined by Dewey as routine or impulsive (lacking in metacognition) and similarly referred to by Tripp as routines or habits. Tripp suggests that the value of critical incidents is that they can reveal potentially subconscious tendencies or biases that are adversely affecting our actions and practice. In effect, reflective practice using critical incidents can help us understand ourselves because "without knowing who we are and why we do things, we cannot develop professionally." (Tripp, 2011, p.54)

In his book *Experiential Learning, Experience as the Source of Learning and Development* (2014), Kolb goes further, indicating that reflection on the experiences that have come to define us can free us from confining self identities based on fear or negative experiences. Kolb

highlights the benefits of metacognition and lifelong learning, employing the skills of questioning and challenging what we experience in order to exercise control on the way experience affects us.

Teachers must be constantly reflecting on their own behaviours, attitudes and self-talk in order to ensure we are genuinely interacting with our pupils in positive ways that support their learning and enable them to feel like confident and capable learners. If we do not recognise the importance of self reflection and our identity as an open yet critical learner, how can we encourage and educate our pupils to feel that way?

Conclusion

The new Professional Standards for Teaching and Leadership refer to a number of overarching values and dispositions including “The teacher is a professional learner and commits to continuous engagement in career long development, collaboration and innovation.” (Welsh Government 2019)

I intend to continue to reflect on critical incidents both in my own practice and in the practice of my peers and colleagues. A thorough understanding of the pedagogy that underpins teaching and learning informs refined practice, and provides opportunities to improve. Particularly when working with mixed ability groups, as is common in the Expressive Arts AoLE, ensuring that I am able to take advantage of all opportunities to deliver differentiated support is key to ensuring all pupils are challenged according to their needs and abilities while ensuring no pupil is left behind. Critical reflection throughout a career prevents the formation of unhelpful habits and allows a teacher to ensure that their teaching is evolving to meet the needs of an ever changing and evolving society.

I aim to continuously reflect on the experiences and viewpoint of the children in my classroom, to encourage them to take an active role in their own learning from an early stage, to support a feeling of ownership and foster the valuation of learning that can support an ambitious, capable learner, ready to learn throughout their lives.

I am optimistic about working collaboratively and productively with my colleagues, accepting feedback, reflecting on my own and others' practice, based on critical assessments of established evidence. I have always enjoyed a supportive yet ambitious working environment where professionals are able and willing to support each other to achieve high targets in a tolerant and inclusive way.

I aim to remain open and enthusiastic about new challenges and continue to practice critical evaluation with regards to new research and techniques only implementing carefully considered and controlled new or revised approaches, ensuring that pupils are offered the best opportunities to achieve the four purposes.

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Appendix

Appendix A: Critical Incident, Observation Notes (ECAD6007_Critical Incident Notes_2106214)

Appendix B: SIMS School X Report, October 22 (ECAD6007_SIMS School X_2106214)