

# **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**

There is a wide body of literature that recognises the importance of differentiation within education. Most notably, to avoid discrimination and attain Donaldson's four purposes within the classroom (Donaldson, 2015, p. 29-31). A considerable amount of research has been published on differentiation; these studies have suggested a wide array of different factors such as – class, and instruction, which will be discussed in the literature review. One of the specific objectives of this paper is to critically evaluate differentiation learning theories, and the relevance of these to an incident observed in a bridging activity. The findings should make an important contribution to the identification of the next teaching and learning steps for 'Pupil A', based on an observed critical incident. One of the greatest challenges researchers have recognised, is the implementation of differentiation within the classroom. This paper will discuss the ambiguities and limitations within the bigger picture of differentiation. Including, a comparison on the usefulness of research published on this theory – within the observed critical incident, and the broad range of education. Significantly, this paper will discuss the importance of reflection within a teacher's role within Wales. Existing research recognises the critical role played by reflection – specifically in terms of research. The discussion surrounding reflection will aid in the identification of future learning steps for the observed learners' progression, including the significance of this reflection in general teaching practice. In this paper, the term 'critical incident' will be used from the definition first suggested by Tripp (2012, p. 24), who saw these incidents as observed situations that could be deemed significant for deeper reflection. It is also necessary here to clarify what is meant by differentiation. Tomlinson (2000, p. 2), a widely cited researcher in differentiation, defines the practice as 'tailoring instruction to meet individual needs.'

## **The role of critical reflection**

The role of critical reflection within teaching is paramount to the profession, considering the impact on learners. The Welsh Government portrays the reflection of teachers as essential; this can be seen in every aspect of the professional standards. Within pedagogy, it is portrayed as the 'teacher consistently secures the best outcomes for learners through

progressively refining teaching, influencing learners and advancing learning' (Welsh Government, 2021a, p. 21). The key phrase within this statement is 'progressively refining'. This can be seen as paramount in all areas of pedagogy, however, simply could be found in recording and reporting, and assessment. Identifying key learning needs and any misconceptions may be indicative of teaching practices that may need adjusting or a scheme of work that may need revising.

Different theories exist in the literature regarding reflection, which supports the teaching standards aims. Zwozdiak-Myers (2012, p. 5) provides a framework of reflective practice, including nine dimensions (Appendix Fig.1). Linking theory with practice is the third dimension of this framework, which suitably associates research with classroom operation. Prominently, Action research, initially coined by Lewin (1946), provides insights on how to define the problem, and an action cycle (Fig.1) to be able to implement a plan. Bassey (1998) synthesises this theory as an enquiry as to improve educational practice. Therefore, the process of recording and reporting, and assessment, in the teaching standards, can be put into practice (Welsh Government, 2021a). The key components of this research, which have been built upon, see the teacher role transitioning toward a researcher's role. This theory is consistent with that of the Welsh Government's education reform (Welsh Government, 2020a). Within the National Mission, one of the four enabling objectives is professional learning, including the importance placed on professional learning within the new professional teaching standards in Wales. It is stated in the reform document, that a research commission is currently underway, including the launch of 'National Approach to Educational Research' (Welsh Government, 2020a, p. 20). This process, if adopted by the cyclical theory of action research, would support the reflective practices of teachers. Therefore, it is clear that reflection in teaching practices is obligatory, however, it is important to consider the learner benefit of teacher reflection.

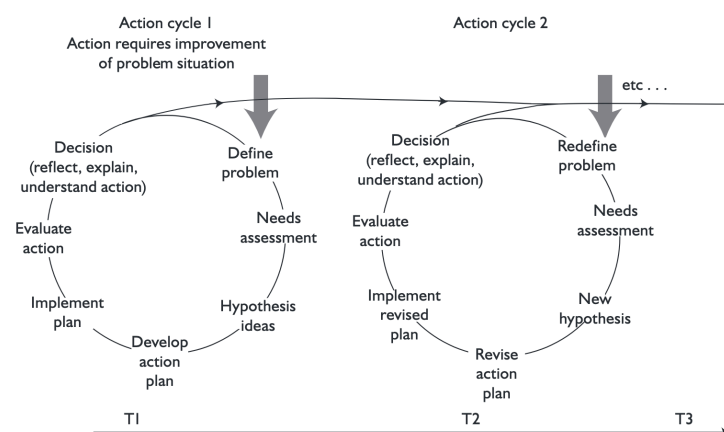


Figure 1. McKernan's (1996: 29) time process model of action research.

Another dimension of reflective practice, formed by Zwozdiak-Myers (2012), includes maximising the learning potential of all pupils. This dimension combines Donaldson's four purposes and the overarching values and dispositions: the right of learners, to reflective practice by teachers (Donaldson, 2015, p. 29-31). Black and William (1998) conducted research amongst 250 schools, with findings suggesting that teachers risk placing more importance on presentation and marking – rather than suitable advice for improvement. Including the detrimental impact on learners, when compared to other pupils. This can be linked to an 'attainment gap', whereby there is an academic difference between pupils from different social backgrounds (Welsh Government, 2020b). Including the risk of discrimination in assessments of additional learning needs (ALN) learners. This directly opposes the function of the four purposes – in particular, healthy, confident individuals (Donaldson, 2015, p. 29-31). Therefore, it is paramount to consider the external factors affecting pupils when teaching. Bronfenbrenner's ecological systems theory (1992) provides a structure to understand the complexities of external factors that may impact learners' performance, which can be used by educators. The role of reflection by teachers should be implemented to provide personalised learning for pupils to narrow the attainment gap and grow achievement (Zwozdiak-Myers, 2012). Therefore, the role of educators includes the responsibility of setting individual targets and reflecting on best practices when lesson planning. This reflection of what learners respond to incorporates appropriately to differentiation within the classroom.

## **Observation: School & Class Context**

Anonymity and confidentiality must be retained in terms of participant' data. However, it is acknowledged that anonymity regarding school data is not possible to provide context for the critical incident and subsequent analysis (BERA, 2018). Due to the COVID-19 pandemic, KS4 attainment data and attendance data has not been updated since 2019. All information has been obtained via My local school or Estyn (Welsh Government, 2021b) (Estyn, 2021). The critical incident, and bridging activity, occurred in a gender mixed, English-medium, secondary school (ages 11-19). There are approximately over 1200 pupils at the school, including 20.9% special education needs (school action/plus and statemented). Higher than Wales' average of 18.7%, there are 24.1% of free school meals (FSM) pupils at the school. Around 38% of pupils live in the 20% most deprived areas in Wales. Again, higher than Wales' average of 2.9%, there are 9.9% of English as an additional language (EAL) pupils. The school also includes a higher than Wales' average (11.4%) of black, Asian and minority ethnic pupils equating to 26.5% - this percentage shows pupils who had recorded their background as anything other than 'White-British'. There is a wide difference in science

achievement (average score), including data from GCSE and Applied triple award and double award. In 2019, the last available data set, the average points, for non-FSM was 36.9/100. And the average points for FSM pupils was 26.0/100. In Wales, the gap between pupils eligible for FSM and those who are not, was widest, in science. Staggeringly, 28.4% of pupils eligible for FSM achieved 5 GCSEs (A\*- C), compared to 60.5% who were not. In the last Estyn report, in 2015, the school had achieved 'Excellent' status – this is partially explained by 'The school is very successful in reducing the impact of deprivation on outcomes.'

### **Observation: Critical incident linked to Donaldson's Four Purposes**

The critical incident observed took place during a mixed ability, Year 9 (between 13-14 years old), science class (Appendix Fig.2), however 3 critical incidents were observed (Appendix Fig.3 & 4). At the start of the lesson, the teacher had been introduced to new ALN pupils, who had changed groups – including 'Pupil A'. The particular focus of the lesson was on Forces, recapping on prior knowledge. This lesson focussed on progression step 3 in science – 'Forces and energy provide a foundation for understanding our universe' (Hwb, 2021). The teacher in this lesson was teaching approximately 30 pupils, with the particular focus on  $\text{Force} = \text{Mass} \times \text{Acceleration}$  equation. This class included videos explaining forces, the equation, and examples from the teacher. This lesson met one of Donaldson's four purposes – ambitious, capable learners, in particular: 'are building up a body of knowledge and have the skills to connect and apply that knowledge in different contexts.' (Donaldson, 2015, p. 29-31). The next part of the lesson included the teacher giving the class three questions to calculate, using the given formula. This aspect of the lesson relates to using number effectively in different contexts, as part of the ambitious, capable learner purpose. A wide range of pupils were able to answer independently, some in groups, and some unable to answer at all. The teacher walked around the classroom, and it was clear that some pupils found this too easy – this was apparent due to pupils being told to write down their working out. One pupil in particular, 'Pupil A', was unable to complete this task, and asked for the teacher's assistance. The teacher noticed several pupils who were disengaged and found this work too complicated. The teacher gathered the classes attention by stating that any pupils who needed additional help could look at the board. Five pupils engaged with the teacher and worked through the first and second question together on the whiteboard. The pupils who had not previously engaged would be linked to the four purposes – by ambitious, capable learners who set themselves high standards and seek and enjoy challenge (Donaldson, 2015, p. 29-31). The teacher then asked if they needed any additional help, and if they could complete the third question independently. I had observed all five pupils then

working on the third question independently. 'Pupil A', asked if they could feedback to the class their working out and the answer. The teacher agreed, and 'Pupil A' had been correct. The end of the critical incident can be linked to Donaldson's four purposes - healthy, confident individuals who are building their mental and emotional well-being by developing confidence, resilience, and empathy. Including, healthy, confident individuals who face and overcome challenge (Donaldson, 2015, p. 29-31).

## Literature Review

Differentiation is fundamental to providing an equitable education for all learners. A considerable amount of literature has been published on this topic, with large overlap in theories for learning. Within this literature review, there will be two topic areas to be discussed regarding differentiation. The links between two theories will be examined - the theory of differentiated instruction alongside 'class' differentiation (Hatcher, 1998). Class differentiation is problematic and is at the forefront of Welsh reforms in education, therefore the importance of interlinking this idea with BAME, FSM, and ALN learners is critical in education currently. Initially, this paper will critically examine the aspects of differentiated instruction, devised by Tomlinson and Imbeau (2011): content, process, products and learning environment. Whilst interlinking the importance of 'class' differentiation.

The theory of differentiated instruction provides a useful account of how to educate in a modern classroom dynamic, with the inclusivity portrayed through 'mixed-ability' classes. Thus far, a number of studies, have begun to examine the use of differentiated instruction in the classroom and it has shown to be paramount in collating the content and learners. Tomlinson *et al.* (2003), had begun to describe the process of differentiation in the classroom, stating that educators must come to understanding their learners process and reconstruct their understanding of how learning varies. In the same paper, Tomlinson *et al.* (2003, p. 135) states how there is 'no simple route to this complex destination', however, the development of differentiated instruction – a term that Tomlinson had coined – has subsequently changed. Tomlinson and Imbeau (2011), discuss how differentiated instruction is the modification educators can make on four topic areas. The four topic areas are able to be differentiated, based on learners' readiness, interest and learning profile (Tomlinson and Imbeau, 2011). This development has added structure to the term of differentiation, and subsequently has provided educators with a framework for differentiation. Whilst this instruction, provides structure – the topic of differentiation is extremely congested. It is apparent that differentiation is widely accepted, thus evident through the QTS standards in

Wales (Welsh Government, 2021a). However, there are limitations to the structure provided and this is contested in an array of literature.

There are three elements discussed by Tomlinson and Imbeau (2011), that differ from classroom instruction. Readiness, interest and learning profile are characteristics that can make the classroom instruction pliable. Readiness is a term used to explain 'a student's current proximity to specified knowledge, understanding, and skills' (Tomlinson and Imbeau, 2011, p. 16). This is not to be confused with ability, but rather if the pupils are ready for a new challenge. This aspect of learner life may be impacted by a variety of external factors. Bronfenbrenner's ecological systems theory (1992) supports this concept, as both theories suggest that systems surrounding the learner may impact their readiness to learn. In particular, both theories emphasise the importance of differentiating to accommodate these factors. Whereas Bronfenbrenner argues that positive relationships between the pupil, teacher, and caregivers (including other systems), are essential to aiding the pupil's experience (Bronfenbrenner, 1992).

Learner interest is a term used to gauge pupil curiosity and attention in the subject area. Tomlinson and Imbeau (2011) argue that once a pupil's interest grows, their motivation to learn increases. But argue, that many teachers do not account for learner interest when planning. Therefore, it is expected that teachers find the interests of their learners to suitably set up differentiation within the classroom. Learner interest could be linked to their cultural backgrounds. There is racial inequality in Welsh education, with BAME learners requesting histories relevant to them (Williams, 2021). Attainment of BAME pupils is affected by this discrimination in education in Wales, and multiple reports suggest that a diverse experience for BAME pupils will increase interest, alongside an anti-racist curriculum (Smidt, 2020). Burgess and Wilson (2005, p. 1) expresses that 'Racial contact in schools may affect such things as the level and distribution of academic achievement in the population, racial attitudes, subsequent social and economic outcomes of students, and patterns of residential integration'. This type of correlation places importance on including an anti-racist curriculum in schools, in relation to Donaldson's four purposes, the values and dispositions: rights of learners and increasing learner interest – which arguably, would increase BAME attainment (Donaldson, 2015, p. 29-31).

The third element and characteristic, that Tomlinson and Imbeau (2011) place importance for differentiation on, is learning profile. Learning profile brings importance to a pupil's learning style, gender, culture, and group orientation (Strickland, 2007). However, these attributes to a learning profile are now questionable subsequent to developments in

educational research, regarding learning styles. Various research, dating back to 2004, indicate that Visual, Audio, Read-write, Kinesthetic (VARK) learning styles do not improve learning. However, Newton and Salvi (2020), found that 89.1% of educators believed in matching instruction. Therefore, if educators were to use the out-dated VARK learning style, then this characteristic of differentiation would be useful, however if a blended approach were to be used, then this characteristic could be considered pointless. Arguably, learning profiles could be deemed prejudice of learner's backgrounds if teaching differentiation were to be adjusted based on this characteristic. However, Boone, Sehgers and Houtte (2018), found that learners from middle class backgrounds were more likely to choose academically oriented courses, than pupils from working class backgrounds. Therefore, alongside the results of lower attainment of FSM learners, working class learners could benefit from a differentiated learning experience to their middle-class counterparts.

This section has analysed the teachers understanding of learners needs, it is now necessary to explain how educators can differentiate, through the medium of Tomlinson and Imbeau's (2011) 'differentiated instruction'. As previously mentioned, there are four components that teachers can differentiate in lessons – content, process, products and learning environment. If the teacher can understand the learners needs, despite the contrasting views described, then there are modifications advised in the following four areas.

The first of the four areas that can be differentiated is content. To define content would be to reference the knowledge learners need to acquire (Tomlinson and Imbeau, 2011). There are examples given on how to modify content – reading, independent research, and group work. This idea of modifying content is in agreement with the practice of scaffolding. Vygotsky (1978) discusses the zone of proximal development, whereby a learner acquires knowledge with the guidance of a 'more knowledgeable other' through social interaction. Thus, scaffolding was developed on top of this idea by Wood, Bruner and Ross (1976). Scaffolding is an activity prior to a learner accomplishing something by themselves, with the teacher's supervision. This leads to the second aspect of differentiated instruction – process. This aspect is how a student comes to understand the knowledge independently. Wood and Middleton (1975) conducted a study on how children would build a 3D Model with their mothers – with the use of different actions. The most successful route discovered is when mothers can change their directed tasks for their children, based on their progress and understanding. This study supports the overall theory of differentiation, but specifically scaffolding within the learning environment. This study supports the process of differentiation by supporting in different modes and brings importance to how children learn at different speeds.

The last of the two areas for differentiated instruction is complex and has been the subject to debate in this paper. The third area is products, whereby a student is able to showcase what they know (Tomlinson and Imbeau, 2011). Products can easily be interlinked with assessment; this raises issues whereby teacher reflection is paramount for differentiation – this includes the necessity of knowing the learner and differentiating to accommodate external factors. For example, cognitive load theory (Sweller, 1988) presents methods to be able to ensure assessment and memory is more efficient, this includes breaking down problems into parts. This approach may work for ALN learners with dyslexia, whereby working memory rehearsal may remove the possibility of extraneous cognitive load within assessments for learners (Dehn, 2008). Whilst this approach may aid the learner, it is important for the teacher to reflect on best practices for each individual. As has been demonstrated, each learner has different needs.

Whilst these considerations are advantageous, the fourth element could be considered the most complex to differentiate through instruction. Tomlinson and Imbeau (2011) state that the modification of the learning environment is needed for effective learning. This aspect may consider group work, friendship dynamics, and Bronfenbrenner's ecological systems theory (1992). This element suggests adapting the learning environment to meet the needs of the learners. However, development through ages 11-19, is varied. Erikson (1982) grew on Freud's (1905) psychosexual theory and modified it into the psychosocial theory of development. Erikson states that the psychosocial crisis for 13–21-year-olds is identity vs. role confusion and argues that the person must resolve these two conflicting ideas to become a 'confident, contributing member of society'. This is in correlation with Donaldson's four purposes, and at the forefront of priorities for education in Wales (Donaldson, 2015, p. 29-31). These priorities for learners do not correlate with the idea of differentiation in the learning environment, as learners are not able to make decisions based on their preferences – and answer the question of 'who am I?'. The results of this research show inadequacies in differentiation, and congestion of theories. However, all theories and contentions concede that differentiation is a personalised experience.

## **Reflection, evaluation, and next steps**

Differentiation, specifically in terms of differentiated instruction, have provided an appropriate basis for how differentiation in the classroom may be grown upon. The crux of this theory is built upon knowing your learners – by being able to recognise readiness, interest and knowing pupils learning profiles, this will enable the first steps into ensuring that education can fit all pupils (Tomlinson and Imbeau, 2011).

In the example of 'Pupil A', the differentiation required had been met by the practices of the teacher that day. In future practice, the educator may be able to break down information by complying with cognitive load theory (Sweller, 1988). Alternatively, by incorporating scaffolding as a means of learning from a more knowledgeable other (Vygotsky, 1978). This had been applicable for 'Pupil A', as they demonstrated 'ambitious, capable learners who set themselves high standards and seek and enjoy challenge' (Donaldson, 2015, p. 29-31).

Whereas, other pupils who may be struggling with identity vs role confusion (Erikson, 1982), may place more difficulty in recognising when differentiation is needed.

Going forwards, in my own teaching and by incorporating practices, I aim to ensure learning will become more accessible for groups that are affected by the attainment gap (Welsh Government, 2020b). For example, by specifying an anti-racist scheme of work, incorporating practical skills, and reiterating lessons for the working memory (Dehn, 2008). This may serve for differentiation in these groups at risk, whilst also ensuring that pupils become ethical, informed citizens including healthy and confident individuals (Donaldson, 2015, p. 29-31).

From the basis of this research, day to day differentiation is a personalised approach to every learner. The teacher must rely on their prior knowledge of theories, and instinctively be able to differentiate – this is most effective when there are positive relationships formed between the learner and educator. It will require aspects linked to the teaching professional standards – innovation and collaboration between teachers (Welsh Government, 2021a). Whereas, in the bigger picture of differentiation, there are various short fallings nationally. The attainment gap between FSM pupils compared to those who are not FSM, is staggering (Estyn, 2021). Further research is required to be able to recognise how teaching delivery may be adjusted to benefit learners, and find a suitable medium of learning delivery, so that all pupils are given a fair chance.

Within my own practices going forwards, I will adopt the McKernan's time process model of action research in my reflection (McKernan, 1996). This model is most suitable due to the cyclical nature of an ever-growing understanding of the problem faced. In this scenario, this would be on a pupil-basis, therefore research regarding their own circumstances will be vital – including, research of the latest developments in learning and education. For example, the high proportion of FSM learners at the school in question, will require a developing understanding of best differentiation practice. Questioning my own personal theories and beliefs will also be paramount, Smyth (1992) states that development of informed scholarship requires scrutiny and analysis, to be able to have a more informed outlook.

There are a variety of reflective practices available in *The Teacher's Reflective Handbook* (Zwozdiak-Myers, 2012) which will aid my decision-making regarding learner interaction. It will also be essential to consider the pedagogy for professional learning within reflective

practice (Welsh Government, 2021a). Therefore, to consider the four elements - collaboration, reflective practice, research evidence and coaching (Tomlinson and Imbeau, 2011). Over the next year, these elements will work hand in hand toward the QTS standards, however it will be important to maintain this in future.

## Conclusion

In this essay, the aim was to investigate next teaching and learning steps in relation to 'Pupil A'. It is clear from the body of research, that differentiation is a congested field of education. Portrayed through this essay, there are varying practices and overlap of opinions regarding how a child learns. However, the overarching theme is that differentiation is a personalised experience. This study has found that actions following the critical incident regarding 'Pupil A' by the teacher, were appropriate. This is because of the positive relationship between teacher and learner, whereby the educator should be able to recognise the pupil's readiness to learn, interest in the subject area and background context of their learning profile. This action had also suitably met the professional standards of innovation regarding the new teaching approach. Whilst aspects of these areas are under debate in the bigger picture of differentiation, the teacher in this instance, can use their relationship with the learner to suitably adjust. However, this could have been detrimental were it not for the collaboration within the school from different departments. It is clear that the learner would benefit by learning from a more knowledgeable other and a scaffolded approach in future. Overall, the study strengthens the idea that differentiation is a constantly evolving concept, both as a personalised approach and within education overall.

The scope of this study was limited in terms of the other learners in the same classroom dynamic. As previously mentioned, there were learners who were at varying degrees of understanding during this lesson – arguably, most interestingly, were the learners who did not understand and did not ask for help. The generalisability of this equates to missing key information in their learning profiles, for example if they were BAME, ALN or FSM learners. Notwithstanding these limitations, this paper suggests that there is a failure of the education system regarding FSM learners. Further research is required, either by individual practitioners in professional learning, or the Welsh education system, on how best to narrow the attainment gap for FSM learners through differentiation.

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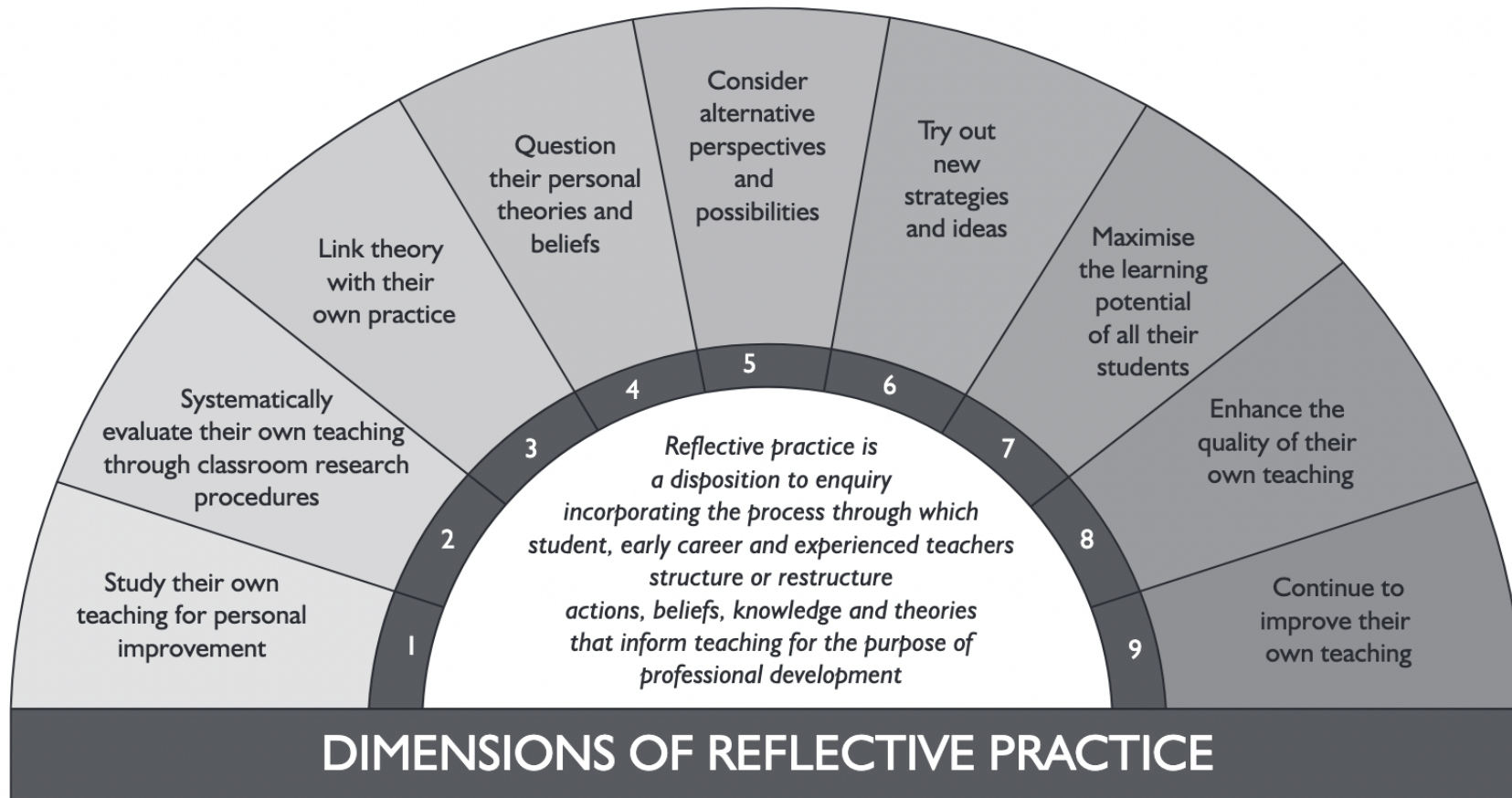
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## Appendices



Appendix Figure 1.

Framework of reflective practice (Zwozdiak-Myers, 2012, p. 5)

## Appendix Figure 2. Critical Incident 1

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <p>Date and time, year group:<br/>22/9, Wednesday, 11:30, Year 9</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p><b>Where and When:</b> Context of the observation – subject/AOLE, general classroom context</p> <p>Science, Mixed Ability, with ALN learners – second lesson of the day before break. Halfway through the lesson.</p>                                                                                                                                                                                                                                                                                                               |
| <p><b>What happened:</b> a detailed description of the critical incident(the more detail the better to refer to in your later work)</p> <ul style="list-style-type: none"> <li>• Pupils given questions regarding forces.</li> <li>• Some pupils were able to answer independently.</li> <li>• Pupil A asked for additional help – students who needed support worked through the question with the teacher.</li> <li>• Final question was done independently – Pupil A presented their findings to the class.</li> </ul>              |
| <p><b>Areas of possible exploration:</b> what you think could be” under the hood” in these incidents? What avenues of research could you consider?</p> <ul style="list-style-type: none"> <li>• Pedagogy &gt; Differentiation. Which is needed due to the classes being in a Piaget format.</li> <li>• Recommendation could be to take advantage of the mixed ability class using group learning.</li> <li>• Vygotsky’s theory of group learning could have aided this situation, and students could’ve been peer-learning.</li> </ul> |
| <p><b>Notes:</b> any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit - the more you can refer to the better here)</p> <ul style="list-style-type: none"> <li>• Additional ALN pupils.</li> </ul>                                                                                                                                                                                                                                                       |

## Appendix Figure 3. Critical Incident 2

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| <p>Date and time, year group:<br/>22/9, Wednesday, 11:55, Year 9</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>Where and When:</b> Context of the observation – subject/AOLE, general classroom context</p> <p>Science, Mixed Ability, with ALN learners – second lesson of the day before break. End of the lesson. Pupils doing a final question and answer quiz, behind the chairs.</p>                                                                                                                                                                                                                                                                                                                                  |
| <p><b>What happened:</b> a detailed description of the critical incident (the more detail the better to refer to in your later work)</p> <ul style="list-style-type: none"> <li>• End of day, question round.</li> <li>• Pupil B was not paying attention.</li> <li>• Pupil B got the question correct – class congratulated the pupil.</li> </ul>                                                                                                                                                                                                                                                                 |
| <p><b>Areas of possible exploration:</b> what you think could be “under the hood” in these incidents? What avenues of research could you consider?</p> <ul style="list-style-type: none"> <li>• Teacher had been trying to convert short term – long term memory. (Pedagogy &gt; Refining Teaching &gt; Assessment).</li> <li>• Through behavioral learning theory – positive reinforcement (Pavlov).</li> <li>• Resulted in influencing learning through resilience and well-being.</li> <li>• Possible exploration through four purposes – confident student. And five steps to well-being – connect.</li> </ul> |
| <p><b>Notes:</b> any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit - the more you can refer to the better here)</p> <p>Additional ALN learners.</p>                                                                                                                                                                                                                                                                                                                                                                              |

## Appendix Figure 4. Critical Incident 3

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| <p>Date and time, year group:<br/>22/9, Wednesday, 2:30, Year 9</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p><b>Where and When:</b> Context of the observation – subject/AOLE, general classroom context</p> <p>History Class, last lesson of the day.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>What happened:</b> a detailed description of the critical incident(the more detail the better to refer to in your later work)</p> <ul style="list-style-type: none"> <li>• Teacher had explained a task.</li> <li>• Pupils given a timer to complete the task.</li> <li>• All pupils finished on time – some asking for additional work before the timer was up.</li> </ul>                                                                                                                                                                                                                                                 |
| <p><b>Areas of possible exploration:</b> what you think could be “under the hood” in these incidents? What avenues of research could you consider?</p> <ul style="list-style-type: none"> <li>• Teacher had been meeting the pedagogy standard – through pupils having self direction in their learning.</li> <li>• The timer signifies the independence that the teacher has given the pupils.</li> <li>• Resulted in competition between peers to finish on time – to learn more.</li> <li>• Possible exploration through future expectations in the workplace – by having time deadlines. Or, through future exams.</li> </ul> |
| <p><b>Notes:</b> any details you can note (is it a busy environment, is it after lunch, are there lots of distractions, are directions made explicit - the more you can refer to the better here)</p> <p>Last lesson of the day – new students.</p>                                                                                                                                                                                                                                                                                                                                                                               |

## Appendix Figure 5. Critical Reflection

**EXPERIENCE TEMPLATE****1. What did you do and why?**

Describe your professional experience. You may wish to refer to your role or involvement, why you had engaged in this experience and the intended outcomes. You can also mention any particular professional standards you had chosen to focus on.

I am a Secondary Science PGCE student, specialising in Biology. I had my first bridging activity in Bishop Gore Comprehensive School. During this experience, I had been an observer in two lessons – Science and History. During this experience, I observed the interactions between student and teachers, and how students navigate their every-day school life. I had been witness to multiple critical incidences during this experience – and have found it hard to narrow down the options. Therefore, I have decided to do this by focussing on a particular professional standard. I have chosen to focus on pedagogy during this experience, as I believe this will provide the foundation of teaching standards, and naturally the other standards should fit into each of these scenarios. Including, the four purposes.

**2. What have you learned?**

You might want to consider some of the following: why is this experience important or relevant? How does it relate to your overall learning, development and/or use of the standards? Did it meet the intended outcomes? Any lessons learned? What are the implications for colleagues and learners? How will you share what you've learned?

**CI1** – This is the incident that I am likely to pick for my assignment. I believe this incident is important as it relates to pedagogy, in particular differentiation. This incident involved the teacher's leadership, understanding of the subject, recognising discrepancies in student understanding and innovation. Due to the reaction of the teacher, this aided the student understanding and participation – therefore, this may have induced an interest in the subject area. However, I believe this incident may have been avoidable if there had been communication between teachers in the school – in particular, the new ALN students in the classroom. I will share what I have learned by linking to differentiation, shortfalls in Piaget's theory, and the potential use in Vygostky's socio-constructivism theory regarding peer-learning.

**CI2** – This incident is important as it transformed a learning incident, in particular short/long/working memory. This incident relates to the use of the standards within assessment and met the intended outcomes for this, and then developed into the four purposes, in particular – healthy and confident individual. By meeting the learning requirements, this student has gained peer-approval, and also met the 5 steps to wellbeing. I will share what I've learned by relating back to Pavlov's positive reinforcement, and learning through resilience.

**CI3** – This incident is important in terms of long-term growth for pupils. By giving students the independence to manage their own time – the teacher is preparing them for future exams, and potentially meeting deadlines in the workplace. This incident may also be an opportunity to reflect on the use of competition between peers, and how this may be helpful, when not required of pupils. I will share what I've learned through the teacher meeting pedagogical needs of the student through the four purposes. In particular, ambitious, capable learners, who are ready to learn through their lives.

### 3. What Next?

Is there anything you intend to do as a result of this experience? You might want to consider some of the following questions: Are there any specific actions that you will take? What would you do in similar circumstances in the future? Is there anything you intend to change? Do you have plans for any further learning or development opportunities? If so, who or what can help - using the standards, people, written resources, online materials, workshops etc? How will you share what you've learned?

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| <b>TARGET</b><br><br><i>What area do you want to develop in your own practice?</i>                                                                                                                           | Within my own practice, I would like to improve pedagogy. In particular, differentiation. I would like to identify methods in which I could include in my pre-planning to lessons, during lesson innovation and after lesson reflection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>TIMESCALE</b><br><br><i>When do you want to achieve this by?</i>                                                                                                                                          | By the end of my PGCE Year (July 2022).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>RESOURCES</b><br><br><i>What do you need to help you achieve this? Who do you need to talk to/observe? What do you need to research?</i>                                                                  | To be able to achieve this, I would need to do additional reading regarding ALN, blended learning and varying learning methods. I believe it will be useful to observe mixed abilities classes that include ALN learners. Also, communicating with other teachers, on their best techniques. I would need to research differentiation, ALN and reflection. Tools that may aid this process are -<br>For example, additional worksheets with pre-prepared axis, keyword lists, etc. This will then form part of a resource bank. Also, giving students choices on how they learn best. Generally, this would just be getting to know pupils, and being able to identify and reflect when my own teaching, has not met their learning needs. According to Tomlinson (2005, pg.6-12), a top-researcher in this field, albeit based in the US, there are certain criteria for teachers to modify for differentiation. Including – Content, Process, Products, Affect and Learning Environment. |
| <b>SUCCESS CRITERIA/ OUTCOME</b><br><br><i>How will you judge whether it has been successful or not? What impact do you hope to see in teaching and learning? What research/literature is this based on?</i> | I hope to see pupils being able to learn within my lessons – which may also help their interest in my subject area. This would meet the teaching standards within pedagogy. Therefore, this should aid in the four purposes of learning by being ambitious and capable learners who are able to build up a body of knowledge. A way to assess if my approaches are successful, are to also use Tomlinson's (2005, pg.6-12) theory again, by pupil readiness, interest and learning profile. For example, am I able to identify these areas for each pupil – to be able to provide them with the best learning materials.                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MONITORING/ EVALUATION</b><br><br><i>How will you check that you have successfully achieved your target? Lesson observation? Book scrutiny? Pupil voice?</i>                                              | To be able to check if I have successfully achieved this target will include the use of assessments (before, during and after). To be able to measure the level of progress within a term, for example. Including, pupil voice and the engagement levels within learners – however, this may be subjective.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |