

The Opportunities and Challenges of Peer Assessment in the Classroom

Introduction

Peer assessment has been recognised for its ability to encourage children to be more skilful in self-regulating, and to be more capable of working through tasks individually and as a group. While the consensus on peer assessment is positive, studies have also shown the need for further research on its exact implementation.

This paper will therefore reflect on a real critical incident in a classroom, in which peer assessment was used. Without already knowing what a critical incident is, the assumption is that it is a negative observation in the classroom, however, (Tripp, 2011) has clarified that a critical incident is only an incident until someone responds in a way that makes it worth investigating further. These events can be both positive and negative, but they both offer areas of further study for teachers wanting to further their professional career. Each incident is decided to be a critical incident by the observer, and each will have a different value based on who is making the observation and what they hope to gain or achieve from the incident.

The paper will then analyse what constitutes the effective use of peer assessment, and relate these theories back to previous studies, while also exploring any further research required in this subject. This may enable a better understanding of the areas that are lacking in order to further future study into how to more effectively implement peer assessment in the classroom.

The Role of Critical Reflection

In recent years, the goal to raise standards in education and performance in schools has been increasingly reliant on the incorporation of critical reflection within teaching practice. This practice itself does not take place solely in the routines of professional teachers, but is also a requirement for the development of teachers in training during their PGCE. The ability to self-assess lessons and strategies ties back to teachers not only existing to inform children, but a teacher's role to also be a:

“reflective practitioner, a researcher and an extended professional”
(Zwozdiak-Myers, 2012).

This is a skill that is built upon through self-reflection methods, allowing individuals to continue to build upon their professional development and show the ability to learn and grow independently with a critical mindset. While reflecting on a teacher's own practice has been increasingly emphasised, it is equally important to recognise recent curriculum reform in Wales and the implementation of professional teaching standards.

As defined by Zwozdiak-Myers, the nine dimensions of reflective practice () have been established to incorporate self-evaluation, study and improvement of one's own teaching with questioning, critical thinking and theory, all to maximise each student's learning potential. Zwozdiak-Myers goes on to suggest ways in which teachers can participate in self-reflection, mentioning strategies such as analysing a problem that needs to be addressed by reflecting on what areas of the teacher's practice were successful and which were not. These reflections can also be related to future lessons by discussing the findings with a peer/colleague or professional tutor, or setting SMART targets for ones 'self (Zwozdiak-Myers, 2012).

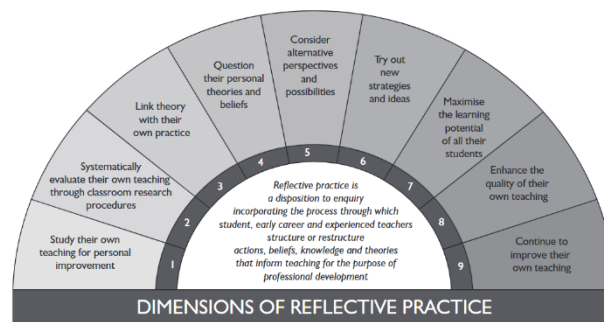


Figure 1: Zwozdiak-Myers Dimensions of Reflective Practice

As mentioned previously, self-reflection is not solely for the progression of a teacher's practice, but it also establishes a habit of teaching for each student's particular needs throughout their education. This thinking has been reflected in the recent curriculum reform in Wales. Beginning in 2022, the guidance for Welsh curriculum will be required to have been engaged with in each school to develop a curriculum that guides each pupil towards the four purposes. These are listed as:

"All our children and young people will be... ambitious, capable learners... enterprising, creative contributors... healthy, confident individuals... [and] ethical, informed citizens...", with the official guidance explaining the context of each in relation to themes inside of the classroom (Donaldson, 2015, pg. 31).

These are important as the curriculum encourages each pupil to grow and mature, independently to the expectations of another child, while no student can be held back because of another student's additional needs, and no student can be left behind because of another's

successes (Welsh Government, 2020a). While this has been determined to be the direction the Welsh Government would like to move in with regards to education, it is also important to note:

“there is no single, universal template for a ‘good’ curriculum... much depends on local and national conditions, values and culture...”
(Donaldson, 2015, pg. 17)

with Donaldson going on to note that for a curriculum to be successful, it must also be authentic.

Lastly is the understanding of the importance of professional standards in Wales. The intention of these standards is to identify distinct expectations when it comes to effective teaching strategies in the classroom. Standards have been established to encourage individuals to reflect on their own practice as well as the practice of peers and colleagues when compared to the standards agreed upon nationally (Welsh Government, 2020b).

Observation School & Class Context

Following BERA guidelines set in 2018, the school in which the critical incident took place will be kept anonymous (“British Educational Research Association [BERA],” 2018).

School X is in the east of Swansea and currently holds 427 students between the ages of 3 and 11. The most recent Estyn Report in September of 2014 recounts that, at the time, 18% of children in the school were from ethnic minority backgrounds, with 16% of these children speaking English as an additional language. This school was recognised to be diverse, not only in the ethnic background of the individuals attending, but also of the economic standing of each family, with around 35% of children being eligible for free school meals (Estyn, 2014).

The diversity of the pupils in the school can be seen most prominently in the atrium, where a flag is hung to represent each nationality present in the school. This simple addition to the interior of the building reflects the actions of the school to ensure that every student feels welcome, creating a sense of belonging within the academic environment from a young age.

Within the classroom itself, Year 2 students are encouraged to collaborate with their peers and move effortlessly between groups. Teachers ensure that each child is interacting with multiple children throughout the day to avoid cliques, a group of children who stick together without interacting with others, being formed within the classroom. These small decisions throughout the day might help to encourage a healthy working environment for the

children, in which they are able to build multiple friendships and have positive relationships with all members of the classroom.

Critical Incident Linked to Donaldson's Four Purposes

The critical incident observed in School X is described as follows. Just before the end of the school day, the teacher instructed the students to sit at the front and centre of the classroom on the reading carpet; the children were excited for the end of the day but also easy to calm as they were busy throughout the day. The teacher asked the student helpers, child A and child B, to identify one student who they had observed making a good decision throughout the day. This incident could be one noted by the students themselves, or one that was overheard, for example a teacher acknowledging another student making a good decision. Child A identified a student who had stood quietly in the line, recognising that yesterday they had struggled to stand still and today they had done much better. Child B identified a student who had complimented another student's work during the day, recognising that showing kindness to others in the classroom helped make the day a lot better. Each of the student helpers were allowed to put a star up next to the other children's names on the wall. After both children had contributed to this activity, one student who had struggled during the day was allowed to recognise another student as well. This student was encouraged to recognise someone in the class who had made a good decision that fell within the rules of the classroom and was able to recognise another student who had helped classmates on the playground equipment during break. During this activity, it was observed that children were able to show affection and praise towards each student who was recognised, with neither being argumentative or envious of the other.

When recognising the use of peer assessment as a critical incident, it is important to consider its relation to Donaldson's Four Purposes. When implemented correctly in the classroom, this strategy enables

"all of our children and young people [to] be healthy, confident individuals who... form positive relationships based upon trust and mutual respect."

Not only does this strategy help children appreciate feedback and appreciation from their peers, it also allows children to become aware of their own actions throughout the day, enabling each to become

"young people [who] will be ethical, informed citizens who understand and consider the impact of their actions when making choices and acting." (Donaldson, 2015).

Literature Review

According to (Panadero and Brown, 2017), peer assessment in the classroom often presents itself as a conversation that is student lead, with children being allowed to contribute critically during lessons or activities and actively make comments on other children's work or contributions. This strategy can also be used to allow children to recognise each other's positive efforts day to day or critique one another on what can be done to improve on their actions. Peer assessment is listed as being one of the critical principles of "formative assessment and assessment for learning (AfL) fields," and it is also recognised to be beneficial for children's learning when implemented correctly (Panadero and Brown, 2017). The review by (Zundert et al., 2010) explained that peer assessment allows for learners to oversee the shaping of certain aspects of their own learning while also encouraging collaborative learning. It also notes how peer assessment can take place in many forms, from grading work, providing written or oral feedback, to reflecting on task performance.

As discussed by Panadero & Brown, (Dochy et al., 1999) and (Reinholz, 2016) have recognised peer assessment for its ability to involve students in general assessment and the provision of feedback to both children in the classroom and to the teacher's lessons. The use of this assessment technique has also been attributed to children being more capable of self-regulating and higher levels of learning strategies when working through tasks (Topping, 2003). In their review, (Zundert et al., 2010) notes a study (Olson, 1990) relating to the positive relationship between elementary students' writing performance and the opportunity to receive peer feedback and revise their work. While this study is from 1990, it offers a strong link between peer review and performance, and it would be an interesting area of research to recreate with a larger sample size. According to (Reinholz, 2016), previous research suggests that the use of peer assessment in the classroom encourages a child's ability to reflect and assess their own work and actions as well, however it does note that the link between these areas of study requires more research. Furthermore, (Gielen et al., 2010) suggest that while feedback from peers has a positive influence on performance, the feedback must be accurate and well justified for this to be the case. Expanding on this, the study also suggested that students who were higher performers before the study were less positively affected by peer assessment methods. With these in mind, it is important to recognise that while (Dochy et al., 1999) recognise the "reliability and validity [of peer assessment's] effects on learning", there is a lack of research on the use of this strategy within the classroom.

The Center for Education Innovation ("Advantages and Disadvantages of Self- and Peer- Assessment," n.d.) recognise the advantages and disadvantages of both self and peer-assessment. It is argued that while the use of peer assessment can encourage the involvement of students in the learning process and assist in the development of critical

thinking and judgement skills, certain challenges arise in variation by age group or skill level. Most of these challenges relate to peer pressure, friendship, fairness, and the question of whether students have enough experience to accurately assess one another. With these concerns in mind, (Zundert et al., 2010) found that the reliability and validity of peer assessment are improved by consistent training and practice in peer assessment. When asking the question of how one might address concerns over positive or negative relationships in the classroom and their effect on peer assessment more specifically, (Vanderhoven et al., 2015) suggested that

“anonymity has been found to reduce the impact of [peer assessment] on interpersonal conflict and tension among students,”

acknowledging that allowing students to assess each other's work without knowing which student it belonged to exhibited less bias and more fair assessment.

While there are many themes that could be considered along with peer assessment, constructivism is a constant theme that arises in the research in this area. This theory

“defines teachers as individuals who do not transfer their knowledge mechanically, but as facilitators who play an important role in the understanding and construction of knowledge as well as motivating and providing the students with the learning opportunities,”
(Yurdabakan, 2010)

With regard to constructivism and according to (Yurdabakan, 2010), there is an argument between the views of Piaget and Vygotsky, with the first arguing that teaching occurs primarily at an individual level, and the second arguing that learning occurs most in situations where social interaction and exploration has taken place.

It is always important to consider areas of controversy within areas of study. Within the field of peer assessment within the classroom, (Panadero and Brown, 2017) have recognised that most examples of peer assessment being reportedly used in the classroom come directly from the teacher. This may suggest a limitation in the study of this subject as there is no set test to judge the performance of peer assessment in the classroom, it is judged per teacher's pre-existing thoughts or beliefs. Panadero & Brown suggest that different results of this theory may present themselves if the classrooms were observed by an outside factor. Even considering the lack of consistency in how peer assessment is reported, it has been noted that the findings around this subject, both positive and negative, remain constant throughout (Panadero and Brown, 2017). Pandero & Brown write that this is reassuring but that further

studies must be done to ensure no bias or beliefs play into the judgement of peer assessment in the classroom.

All papers referenced (Dochy et al., 1999; Topping, 2003; Vanderhoven et al., 2015; Yurdabakan, 2010; Zundert et al., 2010) suggest an agreement in there being both benefits and challenges to the use of peer assessment, making it difficult to decide if this is either a solely positive or negative activity to implement in the classroom. Panadero & Brown suggest that while there is potential for the use of peer assessment in the classroom and that the experiences gained from this would be valuable, they argue that without the implementation of guidelines to monitor the use of this teaching strategy,

“the potential life and academic gains of [peer assessment] will not become activated” (Panadero and Brown, 2017).

In relation to the Critical Incident stated above, it is important to consider which areas of learning will benefit from the use of peer assessment and which areas might present more challenges. When considering the use of this kind of assessment, the age group being worked with might be of importance. It might also be worth considering any positive or negative relationships within the group that may have an affect on peer assessment, and with this in mind it may be important to incorporate anonymity wherever possible. Within the specific critical incident, anonymity was not an option as it was the actions of the individuals being considered rather than work being assessed. The steps taken to prevent bias in this situation was the teacher encouraging children to call upon children who haven't been called recently or reminding the children not to pick on someone simply because they are their friend. With regards to constructivism, this activity allowed children to reflect on their own actions throughout the day and compare them to their peers in order to make a fair assessment of who should be rewarded. Vygotsky argues that in allowing for social interaction in these activities there is more opportunity to learn.

Reflection / Evaluation & Next Steps

There is some debate over whether reflection with the goal of solving a problem is beneficial, rather than reflection simply to reflect and think back on the event(s) in question. As discussed by (Zwozdiak-Myers, 2012, page 36-37), (Hatton and Smith, 1995) argue that the process of reflection for the purpose of thinking back on the action

“may involve processing information while a group event is taking place, or debriefing a student teacher after a particular experience to gain insights and understanding...”

of the relationships between the event that took place and what the intended purpose may have been along with any challenges that arose during the experience. This debate over the purpose of reflection is worth noting, and in this study, it is useful with the goal of reflecting being to analyse the events that have taken place and compare these to what is suggested by literature.

The literature suggests that peer assessment in classrooms has the opportunity to show positive results, but highlights the dependence on many factors. The classroom environment context and management are important to consider, along with efforts made by the teacher to reduce outside factors from hindering the results of the activity. Literature also suggests that there is a lack of research behind why peer assessment can have the effects seen, positive or negative. When reviewing the subject of peer assessment, there are a lack of studies done on primary school age children, and it is important to keep this in mind when applying information given by studies in your own classroom, due to the varying age groups and the considerations that must be made for each. Whilst the studies reviewed seem to be in agreement on the positive and negative aspects of peer review, many have only reflected on the need for more research rather than doing the research needed themselves. There are many literature reviews, but recent studies are difficult to come across and for this reason information may appear to be outdated.

When the use of peer assessment in the classroom in the context of reflecting upon actions throughout the day was observed rather than the assessment of students' work, it was important to note the steps that the instructor took to assure fair assessment was being made. In an environment where these extra steps weren't taken, it would be difficult to replicate the positive outcomes seen. (Panadero and Brown, 2017) mentioned this theme in their recurring need for further study of how to implement peer assessment in a way that would prevent bias or beliefs from skewing the overall usefulness of this theory. Considering this, while the observations made in the classroom showed positive results, this could may not be the case in other classrooms due to a lack of management by the teacher. Special considerations would need to be made for the age group in question, any friendships or relationships between the students and any bias that may present itself during the activity.

Conclusion

This study reflected on the effectiveness of peer assessment in the classroom and related this back to an observed critical incident, while clarifying that a critical incident can be both positive and negative – relying on the observing teacher's ability to critically reflect upon the event and do further study on the subject. The question was raised of whether there is reliable research on this theory and of how beneficial its use can be in the classroom. What factors enable useful application and what factors hinder it.

Many studies presented agree that both benefits and challenges are present in the application of peer assessment in the classroom, allowing this theory to be portrayed either way in research. A constant theme that arose was a lack of structure in how this theory is applied in the classroom, allowing exploration of how this can have an impact on the observations made as a result of peer assessment. These studies recommended further research to determine how to best facilitate this strategy and if any training should be required of teachers to allow for uniformity throughout schools.

The use of peer assessment in the observation classroom was observed to be a very positive experience. The teacher monitored how students engaged with each other carefully, ensuring that bias and relationships from both the teacher and the students in the classroom did not contribute to the assessment given. The goal is that the same can be ensured for every classroom in which peer assessment is implemented, however, if this cannot be guaranteed then the results of this strategy should be questioned. This is an important distinction when participating in research, as there will always be a question left unanswered or an area that needs more study. This paper has highlighted the need for more study on how to guarantee effective use of peer assessment in the classroom to ensure a positive result.

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Appendices

Critical Incident 1

23/09/21 10:00am, Year 2

Where and when: Context of the observation – subject/AOLE, general classroom context

This observation took place Thursday morning, only a few weeks into the academic year. We started the day with rainbow activities, which the children do every morning. Each activity was set up at a different table with free choice activities around each for when children had finished. They have five days to complete six activities. The children were very excited to work through their remaining tasks or to have free choice if these had already been completed.

What happened: a detailed description of the critical incident

The children were allowed to work independently and at their own pace, starting with whichever task they would like. Many children began with a free choice if they were not ready to begin working yet for the day. If a child had completed their tasks or wanted to choose free choice to begin with, they were allowed to work on the laptops, tablets or with other materials in the classroom.

Areas of possible exploration: what do you think could be “under the hood” in these incidents? What avenues of research could you consider?

This incident allows further study on behaviour, reference Thomas C. Powell’s *Behavioral Strategy* that discusses children having more time to focus on skills that need improving, spending less time waiting for other children to catch up or acting as the child trying to catch up. The Welsh Curriculum Four Purposes were also very prevalent in the regards to “all our children and young people will be ambitious, capable learners who are ready to learn throughout their lives”.

Notes:

This was our first activity of the morning, some children were tired and others had a lot of energy and were ready to begin the day. Children want to spend this time socialising and interacting with their friends, sharing stories about the night before or from the rest of the week. Some children needed more encouragement than others to stay on task.

Critical Incident 2

23/09/21 3:00pm, Year 2

Where and when: Context of the observation – subject/AOLE, general classroom context

This event took place at the end of the school day just before home time. The children were asked to first clean up and then sit quietly on the carpet at the front of the classroom. Children took a few minutes to tidy and then were able to calm down and sit respectfully as the teacher had asked.

What happened: a detailed description of the critical incident

Student helpers were asked to assign smiley faces or dojo points for their peers who had done something well throughout the day, they were each allowed to say what they had noticed and why they thought each student was deserving of a reward. The students were encouraged to expand on these ideas by noting what could have been done better altogether as a class.

Areas of possible exploration: what do you think could be “under the hood” in these incidents? What avenues of research could you consider?

It would be interesting to do further study on peer and self-assessment, positive reinforcement as well as behaviourism and constructivism theories. It was noted that encouragement from others who aren't the teacher reminds children that everyone notices positive behaviour, giving children more reason to follow directions and be kind outside of the teacher's view.

Notes:

The children were tired at this point in the day as they had spent the day completing their tasks. It was great to see the children work together to tidy the classroom and sit down quietly in order to listen to each other's thoughts and recognise the actions of one another. I had never seen children participate in daily reflection in this way.

Critical Incident 3

23/09/21 3:00pm, Year 2

Where and when: Context of the observation – subject/AOLE, general classroom context

This event took place during the same time as Critical Incident 2, but it was very dependent on the teacher's response to an individual student. All other children were sat quietly and respectfully while listening to the feedback from the two helpers and they were being patient during this student's behaviour.

What happened: a detailed description of the critical incident

This student was having a difficult time staying on task and being respectful towards their peers, the teacher asked them to sit on the carpet directly next to them and used tools specific to this student to redirect them and encourage them to pay attention and sit quietly. The student responded well to these strategies of redirection.

Areas of possible exploration: what do you think could be “under the hood” in these incidents? What avenues of research could you consider?

It would be interesting to explore behaviourism theories as well as redirection techniques. It would also be beneficial to have a better understanding of additional learning needs and how the teacher needs to respond to each of these.

Notes:

This student had also struggled throughout the day to remain on task and respectful to the other students in the classroom. The student responds well to the teacher's way of interacting with them and they seem to have a bond that each of them have worked towards having for a successful classroom environment.