How can we improve the feedback given to Year 4 and 5 pupils through peer assessment?

Targets from previous assignment:

	Targed/Target	**Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn.** **What I have done in this assignment.**
Targed/Target 1	Ensure you synthesise and reflect - you have done this in a few places but in other places it could be further extended.	I have tried to reflect on my findings, referring back to the research question, suggesting what this means in terms of research.
Targed/Target 2	Be as specific as possible when making recommendations - this will allow you to show knowledge and understanding.	I have tried to extend possible strategies for implementation in the classroom further by supporting this with research.
Targed/Target 3	Please proof read your work and revise your use of the apostrophe. Many sentences were confusing to read.	I have proof read my study, to ensure clarity for the reader.

Introduction

Formative assessment is a method used by teachers to assess pupils while learning is taking place, ensuring pupils are learning effectively and are making good progress (Boon, 2015). Teachers may use strategies like high quality questioning, written and verbal feedback and self and peer assessment to ensure the progress of learning (Black, Harrison, Marshall & William, 2003).

Peer assessment is the process whereby students assess the work of a peer and in turn are assessed by their peers (Dominique et. al., 2002). This process involves pupils engaging with a criteria and making judgements through providing comments or grades on ones work (Koc, 2011). After reviewing the literature surrounding both peer and self-assessment, researchers decided to predominantly focus on peer assessment alone. Furthermore, evidence suggests that peer assessment can enhance self-assessment through peer contributions, which may take the form of comments and questions to prompt us to reflect on what we have done (Boud, Cohen & Sampson, 2014). Having assessed the work of others, children tend to identify weaknesses within their own work more efficiently, allowing improvements to be made within their own work (Black et. al., 2006).

Given the centrality of peer assessment in reforming assessment practices (Panadero & Brown, 2017), and the link that assessment for learning has to one of Donaldson's (2015) pedagogical principles. Researchers felt this was a crucial assessment for learning strategy to explore, to benefit both the children and teachers implementing the technique. The purpose of this research is to examine how peer assessment feedback can be improved and support learning within a primary school context. In order to achieve this aim the objectives are for children to develop their understanding of the meaning comments through the peer review process, using the strategy 'What Went Well' (WWW) and 'Even Better If' (EVI).

Research context

The research was conducted in a good performing school according to their Estyn inspection in 2015 ([redacted] Estyn Report, 2015). The school is a community based English medium school in South Wales. This research took place in a Key Stage 2 Year 4/5 mixed class. The class had 32 pupils in total (with 19 males and 13 females).

Over the observations during PTE1 it was apparent that peer assessment was a common assessment for learning (AFL) strategy used by the class teacher. Therefore, the researchers decided to reform and perfect a strategy the school had already in place rather than introducing a new concept to avoid any confusion over the short period.

The focus of this research is how the quality of feedback can be improved through peer assessment activities. For this class, this will mean appreciating and improving the delivery of feedback during peer assessment leading to improvemens in the quality of children's learning.

Literature Review

Assessment for learning (ALF) is one of the foundations of a child's teaching and learning. Formative assessment has been found to improve pupil performance through providing instant feedback, addressing errors and misconceptions (Ahmed, 2018). Peer assessment is a strategy teachers use placing the students at the centre of formative assessment and assessment for learning (Reinholz, 2015; Panadero & Brown, 2016).

There is ample empirical research demonstrating how peer feedback can have a beneficial impact on learning (Snowball & Mostert, 2013). Such benefits have demonstrated an improved quality of work within the context of reflecting on peers work (Hanrahan & Isaacs, 2001). Pupils have reported to become more confident and ambitious within their own learning, linking to one of Donaldson's four purposes regarding becoming ambitious and capable learners within learning and society (2015). Peer assessment can develop learners to become independent, regarding identifying their own strengths and improvements and are less dependent on the teacher (Race, 2001- cited in Snowball & Mostert, 2013). This concept of learning and developing learning from a 'more knowledgeable other' refers to as the Zone of Proximal Development, whereby the peers are supported by someone more knowledgeable (Vygotsky, 1962). This theory suggests how effective comments can enable children to work beyond their academic level (Gipps, 1999). A possible suggestion to the enhancement in learning might be down to the task-specific comments involving areas of improvement.

Linking peer assessment to theoretical framework, Piaget argued that children learn from social interactions with peers, which in turn can guide them to adopt and embrace other perspectives to develop their existing schemas (Skoumios, 2009; Woolfolk, Hughes & Walkup, 2013). This concept may be seen to apply to the process of peer assessment, whereby children see different approaches and views to a piece of work when marking. This in turn may enable the child to accept there are different approaches to a task, including different assumptions and writing styles from their own which might convince them to make changes to improve the quality of their work (Topping, 2005).

However, peer assessment does have potential problems, and there is some debate regarding whether there is an appropriate academic level where this form of feedback should be implemented. Researchers have found children tend to ignore peer feedback because it does not give them specific comments representing strengths and areas of improvement within their work (Boon, 2016). A possible explanation could be that they don't understand the comments or need further clarity in order to make these learning improvements. A qualitative study examining students beliefs regarding peer assessment in New Zealand, found feedback from peers was unhelpful because children lack the expertise and knowledge of a teacher (Peterson & Irving, 2008). Furthermore, found that friends would usually comment too positively and did not want to mark too harshly, it was what the teacher said that matters, having the biggest impact. Following on from these findings, teachers

have reported that they feel reluctant in using the strategy regarding fears of the lack of reliability and validity.

A growing body of literature suggest that, unless children are guided appropriately, they may find it challenging to partake in activities such as peer assessment and impede student learning if they are not adequately prepared for it (Liu & Carless, 2006). Therefore, it is essential that children know how to give effective feedback, examples may include task specific success criteria's, checklists and model exemplars of work (Orsmond et. al. 2002; Hansen & Liu 2005; Gielen et. el. 2010). The use of a success criteria shows the marker what needs to be done to be successful, and areas that could be worked upon to form their comments (Topping & Ehly, 1998). Teacher guidance has proven to enhance student comments into relevant task-involving comments to optimise learning rather focusing on minor or in some cases irrelevant comments like their handwriting (demonstrated within Min's, 2006 research). The use of a success criteria of a task is important as it models to learners how they can reflect and improve the quality of their work (Miller, 2003). This guidance ensures children will receive good quality feedback therefore, motivating them to use this strategy to enhance their learning (Karmis & Dweck, 1999- cited in, Boon, 2016).

Some children reported peer-assessing a challenge and may be a possible suggestion to the lack of effective feedback due to the lack of practice (Hodgson & Pyle, 2004; Brown & Harris, 2014). Once children have received the appropriate guidance needed to peer review they then need time to utilize this form of AFL within their lessons. Several researchers have claimed that the feedback received must be used to make vital progress within their learning (William, 2011).The findings suggest that, in order for pupils to receive effective feedback they also need to be guided in doing so (Estyn, 2015).

Moreover, there has been less of a focus paid towards pupils voice within literature, which might explain why peer assessment is not always an effective tool in enhancing learning (Dann, 2014). Exploring this avenue might deepen teachers understanding in the difficulties children face during the process. Therefore, this research aims to explore how children perceive peer assessment, and what strategies teachers can implement within their lessons to ensure the feedback received is effective to progress pedagogy.

Methodology

The study employed an action research to improve an AFL classroom strategy. This approach seemed most fitting because, the purpose of the research was to reflect upon the success of the strategies in place, and implement or develop new approaches if required (Goodnough, 2010). The lesson study cycle was composed of 4 stages, planning, teaching, observing and reflecting (Lewin, 1946).

The lesson study occurred over two consecutive days within the same class, participants were primary school pupils from a mixed year 4/5 class. The lesson study was conducted collaboratively by both student teachers. Where Student Teacher 1 conducted the first lesson and Student Teacher 2 acted as the observer and vice versa for 2 one hour lessons. A simple random sample approach was selected, where case pupils were picked from an online randomiser (n=3) (Cohen, Manion & Morrison, 2008). Due to the lack of time with the class and awareness of abilities of the children, this approach seemed most appropriate to avoid biasness (Cohen, Manion & Morrison, 2008).

Student Teacher 1 taught the first lesson, as normal with the implementation of peer assessment as the plenary (See Appendix 1 for Lesson Plan1). Children formed their comments using 'WWW' and 'EBI'. Within the study the children used a success criteria and model answers to mark and form their feedbacks. As research suggests an exemplification of an assessed criteria (e.g checklist) should be visual during peer assessment, this clarification can help better the pupil's process of applying and interpreting the success criteria to make their own judgements (Vickerman, 2009).

A range of collective methods were used to triangulate findings. When Student Teacher1 was teaching, Student Teacher2 took the role of the observer. Non-participation observations were used as it allowed the researcher to look afresh at everyday behaviour which could be taken for granted (Robson, 2002). This method seemed most appropriate as it allows observers to zone in on the case pupils to capture responses and then back out to the whole class (suggested in Lesson Study Handbook, Dudley 2015). Observation notes were used and collected in regards to information on how the case children engaged with peer assessment (see Appendix 2 for blank copy of observational schedule). After the lesson, books were collected to observe whether the success criteria was used, and how detailed feedback was. Nevertheless, it must be noted that there are drawbacks to using non-participant observations surrounding the Hawthorne effect, where by children's

behaviour may be subject to change either positivity or negatively from the presence of an observer (Oliver, 2003). This behaviour therefore, may not present the norm behaviour which could affect the reliability of the results. It could be argued a challenge to achieve accurate findings as children need to be aware they are being observed (in line with BERA, 2018; Cohen, Manion & Morrison, 2017).

A qualitative method of research was selected as this method has been noted as a powerful tool to capture the voices, opinions and experiences for further understanding (Rabionet, 2011). Semi structured interviews were used to gain further understanding and perspectives of the children (Cohen, Manion & Morrison, 2008). It was imperative that the interviews were conducted at the most convenient time after the lesson observation for children to recall their experiences and opinions of peer assessment from the lesson (Cohen, Manion & Morrison, 2017). The aim of the semi-structured interviews, each lasting approximately 20 minutes was to trigger discussion about the lesson and reflecting on their experiences of engaging with peer assessment (See Appendix 3 for Semi-structured Interview Questions for interview 1&2). They were asked open-ended questions with additional questions to clarify and explore responses further. Open-ended questions were used as answers are usually of more accuracy than answers to closed questions (Wright & Powell, 2006). Children were interviewed together, as research has suggested that being interviewed with friends, reduces any feelings of insecurity (Morrison, 2013). However, there has been speculation over this as literature has demonstrated a drawback to this approach. Particularly if there is a dominant voice being heard therefore some children may be denied a voice and limits the ranging viewpoints heard affecting the overall reliability of the results (Smithson, 2000). Researchers decided to overrule this as the feelings of the participants safety and security is paramount (BERA, 2018).

In accordance with Dudley (2015) upon completion of the lesson study researchers discuss the data and key findings collected. Kolb's Model of Reflective Practice (Kolb's Learning Cycle, 1984) was adopted, the Learning Cycle reflects on the observations, analysis and draws conclusions from an experience (See Appendix 4 for Reflection proforma1&2). Reflexivity is a central to action research, it requires a self-conscious awareness of the participants values, attitudes, perceptions and opinions which feeds into the research being explored (Cohen, Manion & Morrison, 2008). It is important to note that the strategies drawn from the lesson study were the opinions of the pupils. Linking to the ethos of Successful Futures (Donaldson, 2015) where pupil voice is central to learning. Upon reflection Student Teachers revised the lesson plan with the pupils suggestions and approaches. On

completion of the collaborative evaluation Student Teacher2 implemented the new strategies into the next lesson.

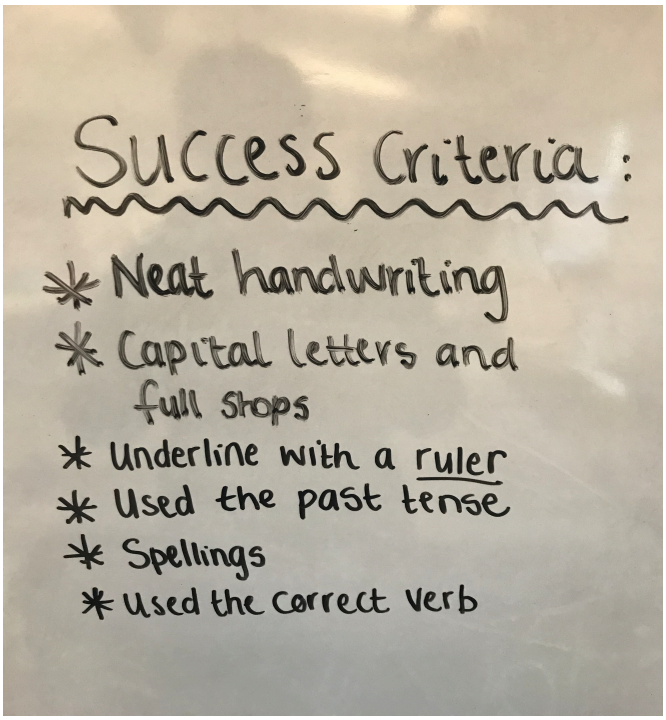
Ethical Considerations

To adhere to ethical guidelines for classroom research, ethics forms needed approval from the university board in line with UWTSD Research Data Management Statement (DCC, 2013) and Bera Ethical Guidelines for Education (2018). For this study, data was only used with informed consent sought from the child's parent or guardian. Information sheets and consent forms were sent home explaining the purpose of the research and their child's participation (See Appendix 5 and 6) . Children assented to their personal participation within the research (See Appendix 7). Children were given smiley/sad faces to ensure on going assent, indicating whether they were happy to continue or that they wished to withdraw. Moreover, children were reassured they could withdraw from the research at any point without any consequences. The school and children's names have also been concealed throughout the research to ensure anonymity and confidentiality of participants (BERA, 2018).

Lesson study 1

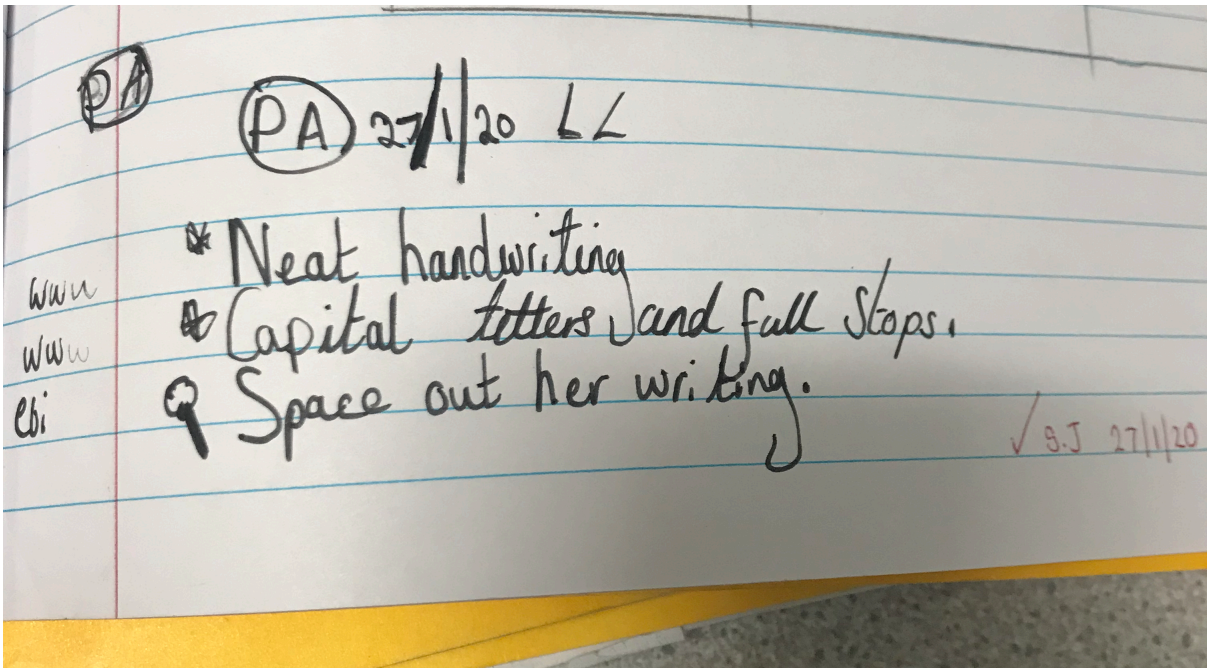
Children were tasked to peer review each-others work in a grammar lesson. The answers were on the board, and the children came up with a success criteria to mark against as shown in Figure 1. Upon the observations children all completed the task by peer evaluating each-others work using the 'What Went Well' (WWW) and 'Even Better If' (EBI). All children came up with the feedback by themselves they did not discuss with anyone as was observed within the observations, a reason for this may have been the norm expectation or instruction used by the class teacher.

Figure 1- Class success criteria (Lesson Study 1).



Child A expressed in the interview that she uses the success criteria to form her feedback, she demonstrated that she liked this as she used this as a checklist when marking her peers work. She explained she finds it easier when there is a success criteria to pick out the strengths and areas of improvement so comments make more sense. However, from Figure 2, Child A contradicts her comments where she praises her peer on their handwriting however, she advises her peer to improve to improve her handwriting from spacing her writing.

Figure 2- Child A peer assessed comments (Lesson Study 1).



This was further explored within the focus groups that this is a recurring theme that “annoys” the children as they are not receiving effective feedback to help them develop their learning. Suggesting that some children may not understand what they are marking or have not had the appropriate guidance to use this AFL strategy effectively, in order to enhance learning, which in turn is limiting the effectiveness of task-focused comments. Furthermore, although Child A notes strengths and areas of improvements there is no indication about how her partner could be more specific within their work in terms of task content. When asked in the interview what would you do if you disagreed with your peers comments she replied: “I will ask my teacher to explain” highlighting that she may favour the expertise of the teacher over her peers, and it is what the teacher says that matters.

Child B expressed the most enthusiasm in the interview suggesting that he enjoyed and engaged within the lesson. Although no verbal feedback was given to/from his peer, he revealed in the interview that: “if I don’t understand my comments, I will ask my partner to explain”. Unlike Child A, this suggests that Child B may value his peers opinion, and wants to clear any misunderstanding, to know where he can improve his own work. All children seemed to favour peer assessment over self-assessment in particular a point Child B expressed that: “its boring looking at your own work” he explained he enjoyed the process of peer assessment because he could mark the work of other people in his class.

Figure 3- Child B peer assessed comments (Lesson Study 1).

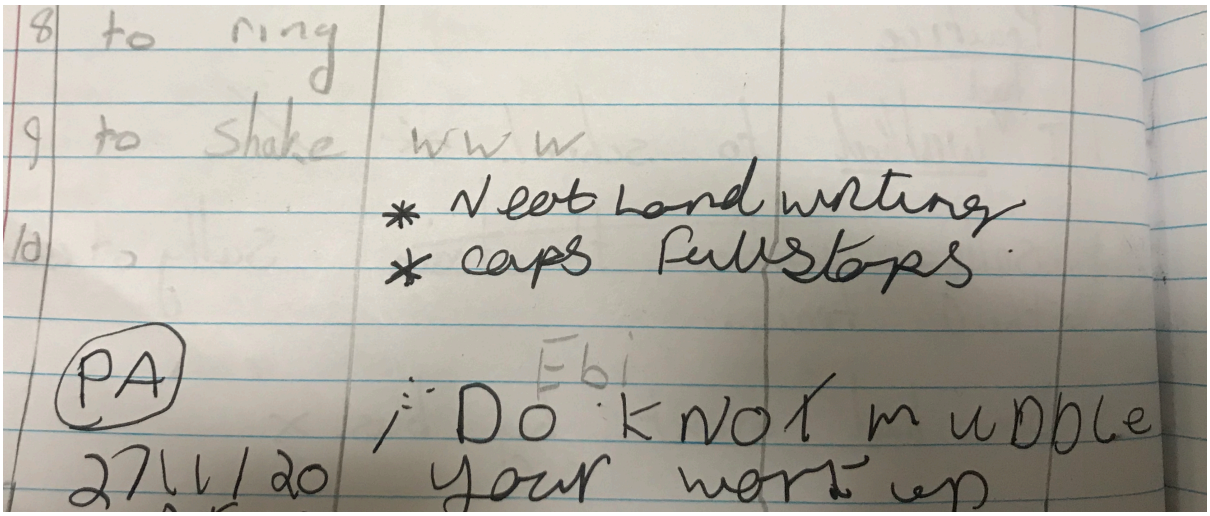


Figure 3 shows the peer assessed notes made my Child B, as shown Child B has used the success criteria along with his own comments. Using his own knowledge from his understanding of the task he was able to construct a task-focused comment to guide his peer in improving their personal learning.

The consensus was that all children had a positive attitude and enjoyed the implementation of peer assessment within the lesson in particular Child C stated: “I like peer assessment because it helps me improve my own work” suggesting that children do use their comments to enhance their own learning. However, Child C expressed he did not always agree with his peers comments, however he would never question the markers comments. Which in turn could impede his own learning because his comments are ineffective in suggesting areas of improvement in his own learning and progress.

Figure 4- Child C peer assessed comments (Lesson Study 1).

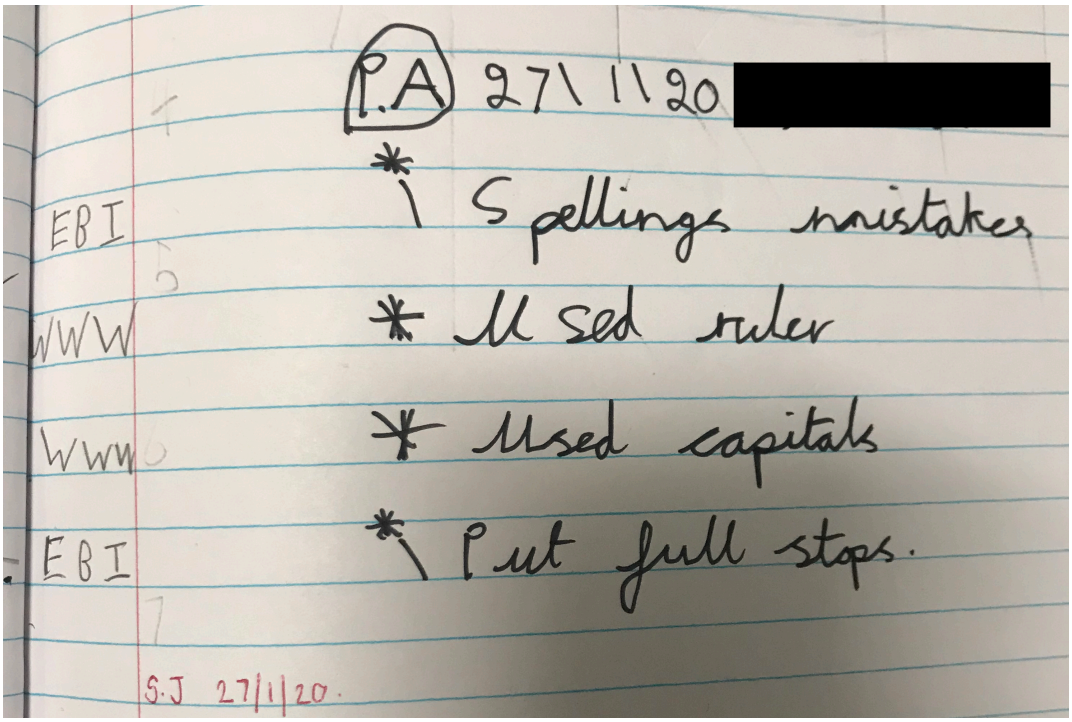


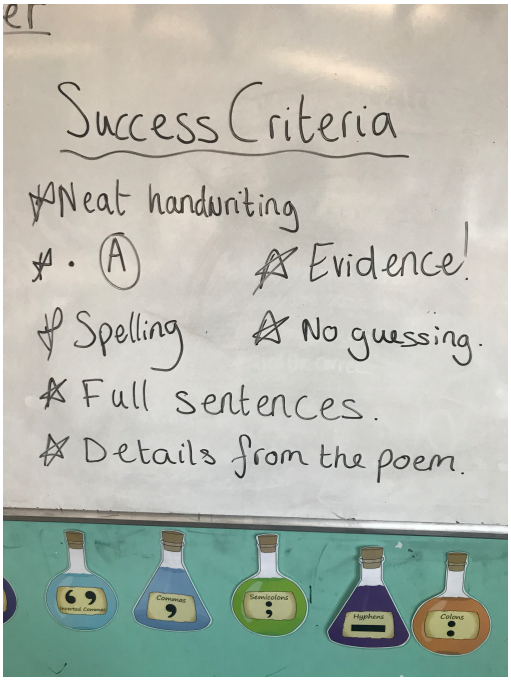
Figure 4 shows the peer reviewed comments formed by Child C, using the success criteria to accumulate his comments. Again like Child A, these comments can be seen as vague as there is no indication to where these improvements are needed to be made within the work suggesting, children may need further strategies to aid them with when peer assessing. The success criteria has shown to be an useful aid in guiding the children to form critiquing comments, and supported by the children.

The evidence of the case children imply that children do enjoy using peer assessment and use it as a means to improve their own learning. Although, all children stated that they do read their comments in the hope to improve their work. The issue notified during the interview the most frequent was over miss leading comments and therefore their ineffectiveness to make improvements within their own learning. In the lesson there was no verbal feedback or communication when they gave the books back to their peers. When asked how we could improve the process of peer assessment within our lessons children agreed that oral feedback along with the written comments would aid understanding. Children felt that: “one to one feedback would help if we didn’t understand some comments”. This dialogue would hopefully encourage discussion and help children understand their errors to improve their own learning, improving the overall quality of feedback.

Lesson study 2

Within the second lesson study children were tasked to peer review an English language lesson specifically focusing on comprehension (see appendix for 8 Lesson Plan2). Answers were on the board, and children had to peer review a partners work using 'WWW' and 'EBI'. The class came up with a success criteria which was displayed on the white board (see Figure 5 for class criteria). After children formed their comments they returned the book to their partner providing verbal feedback and explaining their comments in the hope to avoid misunderstanding.

Figure 5- Class success criteria (Lesson Study 2).



The interviews demonstrated that the children favoured this strategy, as feedback was much clearer. Child A expressed her views by highlighting that: "the targets make more sense" and felt that she could go and correct her work because she knew exactly what she needed to do. She mentioned that she felt that she needed that time at the end of the lesson to discuss with her partner otherwise, she would unlikely have looked through her comments. The strategy helped them identify areas of improvement within their work that they might not have seen.

Figure 6- Child A peer assessed comments (Lesson Study 2).

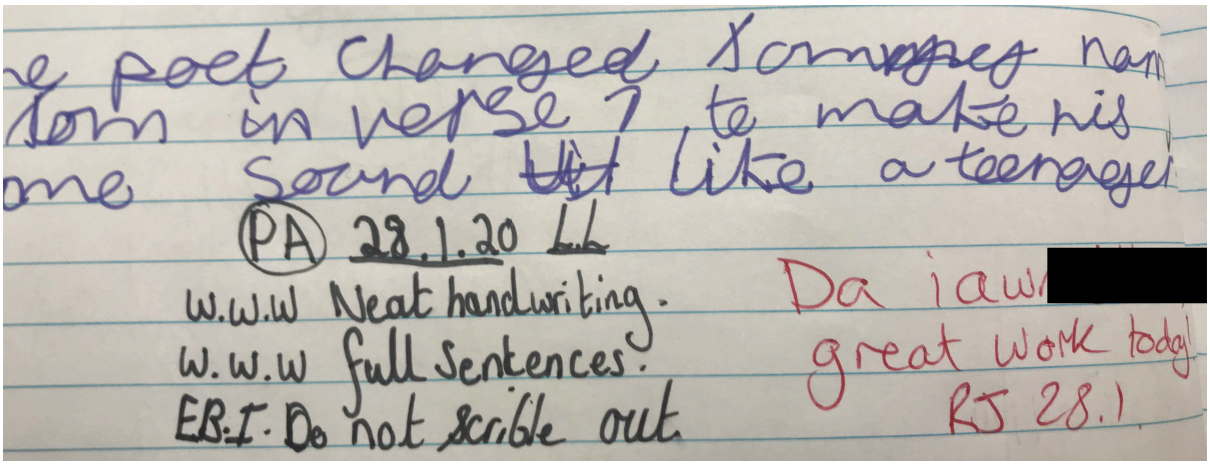


Figure 6 shows the written comments from Child A, as can be seen she had gone beyond the success criteria to form the comments. This was alliterated within the focus group discussion by all children where children summarised that although they use the success criteria and learning outcomes, they will occasionally suggest additional comments. With Child A demonstrating that they might need to improve on a certain aspect of their work which is not on the criteria. Furthermore, suggesting that she does not only use the criteria as a checklist as mentioned in interview1, and looks at the work as whole for areas of improvement making those comments most effective and personalised for each individual.

Child B expressed his views of feeling: “bossy” when giving his peer comments of what could be better, a possible reason for this might have been the lack of practice they have had using critiquing techniques orally. Although, the children expressed positive feelings associated with oral feedback as a good strategy for them personally to clear up misunderstanding. The difficultly was surrounded by how they should orally explain the comments. With Child B implying feelings of: “worry” in regards to their partner disagreeing with the comments or not being able to explain the comments effectively, whereas nobody would usually question the written comments. The inability to explain sufficiently might influence the effectiveness of comments as their partner may not understand what and how they can improve within their own work.

Figure 7- Child B peer assessed comments (Lesson Study 2).

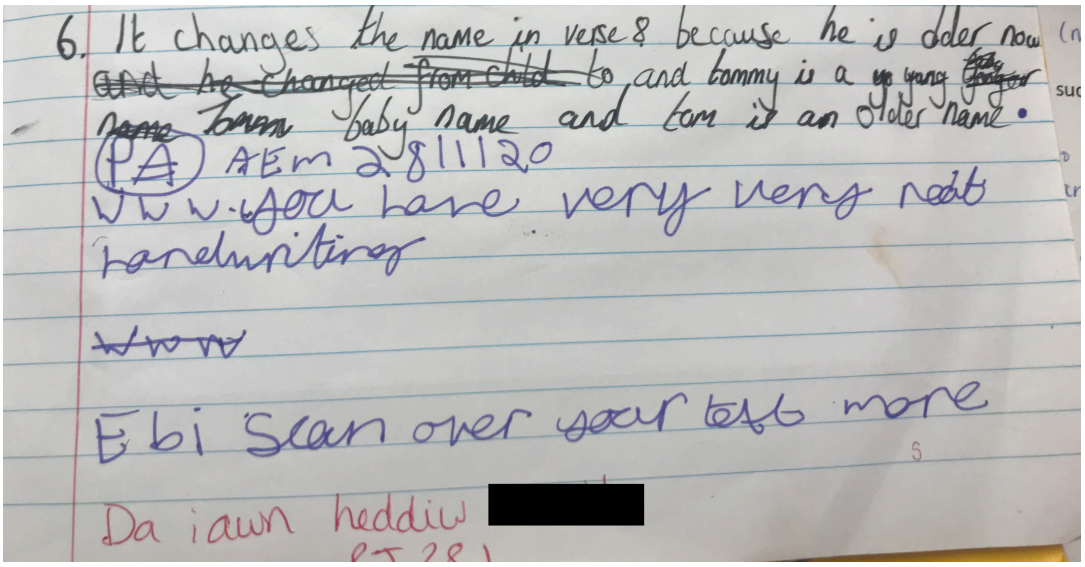
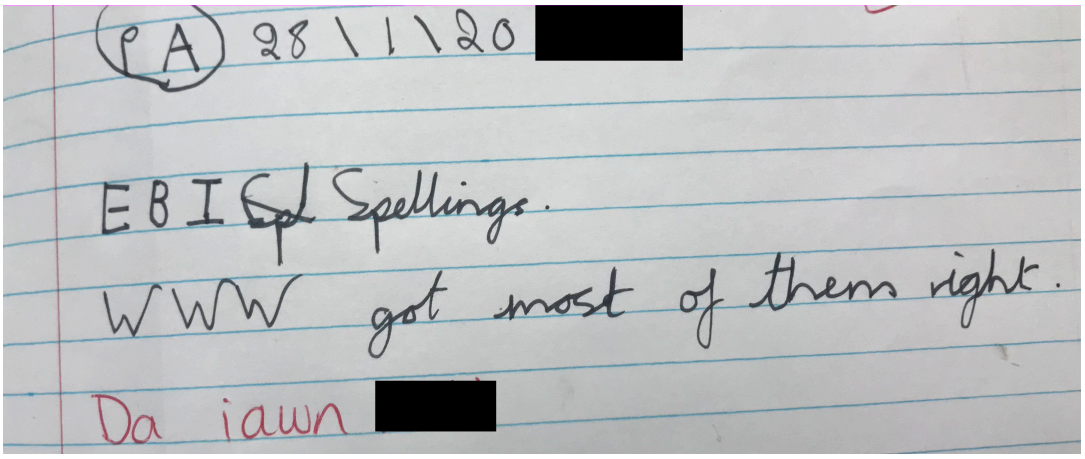


Figure 7 shows the comments formed by Child B. He portrayed in the interview it was a lot easier to give the book back without explaining but, appreciated the benefit of doing so as: "explaining will help people know where they've gone wrong" and therefore can act upon their errors appreciating the need for clarity within feedback.

Child C agreed that the dialogue helped children clarify any comments or misunderstanding than the written feedback alone could provide, "because if you are unsure, they can explain it to you". This contradicts to what Child C said during interview1, regarding ignoring feedback which he might disagree with, instead of reasoning with his partner. Creating an environment where discussion is appreciated to understand any misconceptions and clarity of comments, improved the effectiveness of comments received in this case.

Figure 8- Child C peer assessed comments (Lesson Study 2).



A further observation of a pair of children showed Child C explaining the 'WWW' and 'EBI', using the marked book. His target was spelling Child C pointed out the spelling mistakes that their peer had made. Here it appeared that Pupil C took on the role of the 'more knowledgeable other' and aiding scaffolding. Although, the comments may have been seen to be vague the oracy helped clarify any misunderstanding. That child went to see the teacher after his oral feedback to see what the correct spelling was for that particular word. Without pointing out those spelling mistakes that child may not have noticed that and continued to misspell the word, emphasising the effectiveness of feedback.

The evidence suggest that the children felt that the oral feedback did enhance the effectiveness of peer assessed comments. Children concluded it was easier give the comments with the book in front of them as they could immediately identify where the errors were within their work, improving the effectiveness of instant feedback. Although, children expressed positivity towards the oral feedback children stated that they wanted to continue to receive written comments as they could always look back on those to check improvements. For this strategy to be most effective children raised the point that extending written feedback and getting more than one person to peer review a book could be benefical.

Discussion

The results indicate that the feedback must be effective to ensure learning gains and improvement in the quality of work is met (Gielen et. al. 2010; Min, 2006). The findings of this research has been mirrored in previous peer assessed literature within educational contexts (Van Steendam et. al. 2010; Boon, 2015). The lesson studies revealed that children needed time to engage with their peer feedback so they could make appropriate changes (consistent with findings from, Boon, 2016). Within this research, this engagement came from the discussion peers had upon marking, which enabled children to explain in depth and offer reasoning. It was evident across interview2, that children favoured the strategy of additional clarity orally alongside the written comments. As they had the opportunity to ask questions and clarify any misunderstanding, they were aware exactly what they needed to do to improve their learning. However, it also important to note that children can find it a challenge when asked to collaborate and use talk as a tool for learning within social activities, such as peer assessment if they have not been guided within the process which could inhibit learning (Brown & Harris, 2014).

Although, children did admit that they thought verbal feedback gave more information and clear guidance as to how to improve their work (Kerr, 2017). Feelings of discomfort and worry regarding delivering feedback orally were expressed by the children, in particular Child B. These findings are not unusual within peer assessment literature for example Hanrahan and Isaacs (2001) found that university students described peer assessing difficult and stressful, due to the lack of expertise and practice within the strategy. Reflecting on what Child B mentioned about the worry that their partner might disagree, teachers need to create a supportive culture within the classroom where errors are valued as learning opportunities, and it is acceptable to ask for something to be explained (National for Education Research, n.d). A possible suggestion to reduce these negative feelings, if teachers delivered activities and guidance in class concentrating on providing verbal feedback and in turn improving their confidence in delivering effective feedback (Min, 2006).

Previous literature have revealed that children tend to ignore peer feedback (Gielen et. al. 2010). The findings from this study contradict with this, as children mentioned that they would usually read the comments after they had received their feedback. However, the issue suggested was that the children did not usually have time within their lessons to amend their errors. As Child A mentioned that they needed time within their lesson to reflect on their comments. This is further supported by research where implied that feedback must be acted upon to progress in learning (William, 2011). Providing children time to practice this strategy within lessons has suggested to develop confidence, independence, cooperation and active learning (Pope, 2001), in turn developing skills that can be utilize in other aspects of learning.

Children did agree the feedback did improve their work as they were more aware of their errors. Across the 2 lesson studies children chose whose book they wished to review. Child A and B over the two lessons swapped books with someone on their table, where Child C swapped with someone on another table. Speculations in research have suggested that the reliability of comments may be effected as children tend to mark too positively when marking work by a friend (Peterson & Irving, 2008). Suggesting that feedback may not to be as effective as children are reluctant to marking harshly. These finding show that children need task specific focused feedback in order to have clarity and understanding over their errors, and know what areas need improving.

Limitations & Conclusion

The lesson study approach oriented from Japan however, there are limitations of borrowing and orchestrating ideas from elsewhere (Godfrey, Seleznyov, Anders, Wollaston, Barrera-Pedemonte, 2018). According to The Lesson Study Handbook (Dudley, 2015), it recommends that researchers use three lessons for a lesson study cycle. It might have been useful if extra lessons were added to the study to collectively gain a wider and more detailed observation.

A second limitation of this study was that there was only one Student Teacher observing the lesson. There is question regarding the reliability of results and the difference in interpretation of data (Breznau, 2016). In Japan usually every teacher will observe the lesson there might be as many as 30 or 40 observers in a room (Fujii, 2016) however, this cannot always be feasible. Research has suggested that two observers during a lesson study might better the reliability of results gathered as researchers could check their interpretations to ensure clearer and more collective data (Ho & Kane, 2013).

The study explored how strategies could potentially improve the effectiveness of peer assessed feedback, and how useful these are within children's learning. The strategies implemented into Lesson Plan2 were down to pupil voice, the children's opinions and views on how they could make feedback more effective for them (Pedder & McIntyre, 2006). These strategies were shown to be effective for this particular class, age group and for the individuals themselves. However, although effective in this research, these strategies may not be as effective in another class due to the perspectives and opinions of pupils. A crucial point on the given emphasis on lesson studies within pedagogy, is the changes within teachers' practice that might lead to improved learning for pupil (Godfrey et. al. 2018) and links to the Successful Futures Document (Donaldson, 2015) where teachers are using different strategies for learning and supporting pupils based on their particular needs.

Nevertheless, this research has implied the positive effect feedback can have on learning progress. The value of talk has been significant, from explaining comments which may not have been clear and giving reasoning. This has allowed children to gain a personalised awareness of their particular weaknesses within learning and improvements in doing so. As mentioned, these findings are consistent with other research however, different strategies need to be explored to ensure feedback is delivered at an effective level to ensure learning gains are met for all pupils.

Recommendations

In light of this research, strategies have demonstrated to enhance the effectiveness of peer assessed feedback on their partners comments. This study specifically looked at a Year 4/5 class, and as Panadero & Brown (2017) hypothesised that strategies to enhance effective peer assessment feedback may differ amongst age ranges of pupils. Further research may explore strategies to encourage children to make more effective use of peer feedback across different primary age groups, settings and subject areas.

As evidenced with lesson study 2, Child C took on the role of the 'more knowledgeable other' aiding scaffolding through the miss spelling of words (linking to Vygotsky, 1962). Research has suggested that when peers are supported by someone more knowledgeable than themselves and in turn are enabled to work beyond their academic level (Gipps, 1999). Further research may investigate how this may effect children of similar academic levels.

The use of technology and research has expanded the way teachers can modify teaching and learning within the classroom (Sarfraz, 2018). Teachers need to be equipped with motivation and confidence within research, and have the opportunity to do so to develop the teacher as the researcher (Konstantinou, 2018). The Successful Futures document encourages teachers to participate in research weeks, to explore the best outcomes and standards in learning for their children (Donaldson, 2015). To further ensure that the pedagogies develop academic excellence and contribute to vital skills outside the classroom.

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