

Appendix One:

Researcher's Reflection Model (Brookfield and the ARC).

Self.

What are your feelings about the experience?

What went well? What was effective?
What did not go well? Why was this?

Would you use this strategy again?
Why? What aspects of the strategy
would you keep the same? What
would you change?

Reasons for keeping the same or
changing?

What can you do next time to improve
the impact the strategy has on pupils'
engagement?

Students.

What are the student's feelings about
the experience?

What did they think went well? What
was effective? What did they think did
not go well? Any reasons why?

Would the students like this strategy
to be used again? Why? What would
you change about live marking?
Reasoning behind answers?

What can the teacher do next time to
improve pupils' engagement in the
lesson?

Peers- My research partner.

What are their feelings about the
experience?

What went well? What was effective?
What did not go well? Why was this?

What aspects of the strategy would
you keep the same? What would you
change?

Reasons for keeping the same or
changing?

What would you do next time to
improve the impact live marking has
on pupils' engagement?

Scholarship- Theoretical Literature.

What do other research studies think about
live marking and how it should be incorporated?

Is there research to support the effective
aspects of live marking identified in the lesson?
Or the ineffective strategies?

The aspects of live marking you keep the same
or change. Is there research out there to
support or provide reasoning for your decision?
What would you change?

Is there research on live marking with different
approaches which show higher levels of
effectiveness on pupil engagement? How could
you incorporate this into your lessons?

What can you do next time to improve the
impact live marking has on pupils'
engagement?

Appendix 2:

Blank Parental Consent Form.



Dear Parent/Guardian,

Your child's school is a partner with Yr Athrofa at University of Wales Trinity Saint David in Carmarthen and Swansea. This school offers placements to students who are learning to be teachers.

The student-teacher in your child's class has been given the task of planning, teaching and evaluating one lesson so that he/she can develop specific strategies to improve their own teaching. As part of this, student-teachers will be observing the children's responses and asking some pupils their views on parts of the lesson. This is designed to inform students' own practice and support children's learning.

Any information collected would remain confidential, and both the school and the children would remain anonymous in work produced. The work undertaken would be in line with the University's ethical guidelines. If, at any time, your child does not want to share ideas, they would not be required to do so.

If you are happy for your child to contribute to the project, please complete the parental consent form below and return directly to the school as soon as possible. If you are interested in the outcome of this project or if you have any questions, please contact the University Partnership Office - partnership@uwtsd.ac.uk.

Yours faithfully,

Catherine Morgan
Module lead – The Enquiring Teacher

As Parent/Guardian of (pupil name), I do / do not give consent (please delete) for my child to take part in this project.

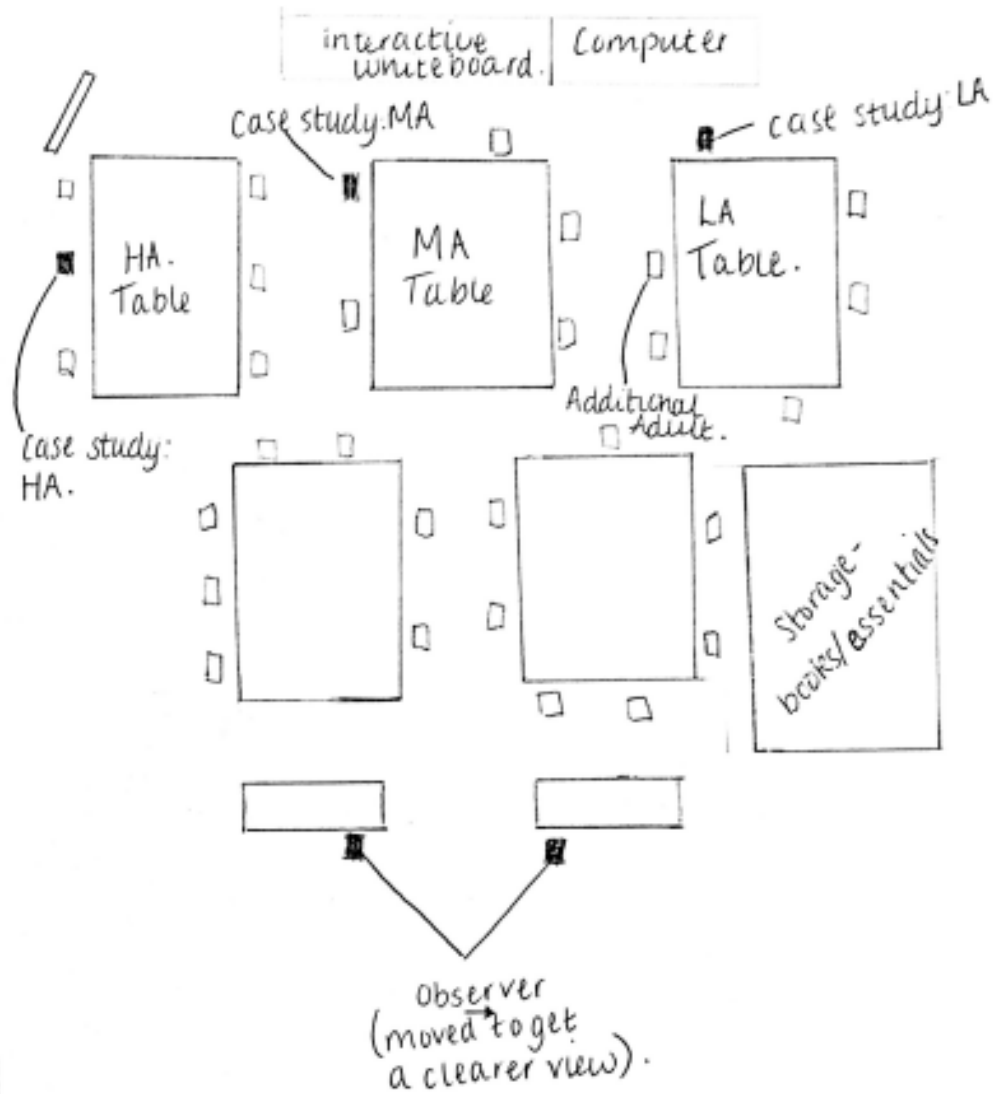
Signed (Parent/Guardian).

Date.....

Appendix 3

Seating Plan (School One- Lesson One).

Appendix 3: Seating Plan (School One- Lesson One).



Appendix 4:

Observation- Engagement Grid Lesson One- LA.

Child One: LA	Immediately after live marking .	Contin ued to be engag ed betwe n contact with teache r?	5 minut es (1 st live marki ng).	Contin ued to be engag ed betwe n contact with teache r?	10 minut es after (2 nd live marki ng).	Contin ued to be engag ed betwe n contact with teache r?	20 minut es after (3 rd live marki ng).
1). Low engagement towards the marking progress.							
2). Frequent engagement towards the marking process- some distractions/interr uptions.							
3). Mainly continuous engagement towards the marking process.							
4). Continuous engagement towards the marking process- with intense focus.							
5). Sustained Intense engagement towards the marking process.	5	5	5	5	5	5	5

1). The child appears to be disengaged towards the marking process, no or very limited communication with the teacher. The child appears disengaged, not looking at their work or the targets being suggested by the teacher. No or limited effort to improve their work.

2). The child appears to show frequent engagement towards the marking process but may be disengaged in other parts. Frequently distracted which easily disrupts the child's engagement and effort to improve their work.

3) The child appears engaged towards the marking process but seems unsure of how to act upon teacher's suggested targets. Can be distracted but makes some effort to improve their work.

4). The child appears to have moments of full engagement and is focused towards the marking process. But this engagement is not demonstrated consistently. They are not easily distracted and show effort to maintain improvement based on suggested targets.

5). The child demonstrated high levels of engagement towards all the whole marking process. The child demonstrates high levels of concentration throughout and shows consistent persistence and effort to improve their work in accordance to suggested targets through the marking process.

Appendix 5:

Observation- Engagement Grid Lesson One- MA.

Child 2: MA	Immediately after live marking.	Continued to be engaged between contact with teacher?	5 minutes (1 st live marking)	Continued to be engaged between contact with teacher?	10 minutes after (2 nd live marking)	Continued to be engaged between contact with teacher?	20 minutes after (3 rd live marking)
1). Low engagement towards the marking progress.							
2). Frequent engagement towards the marking process- some distractions/interruptions.		2					
3). Mainly continuous engagement towards the marking process.	3			3		3	
4). Continuous engagement towards the marking process- with intense focus.			4		4		4
5). Sustained Intense engagement towards the marking process.							

1). The child appears to be disengaged towards the marking process, no or very limited communication with the teacher. The child appears disengaged, not looking

at their work or the targets being suggested by the teacher. No of limited effect to improve their work.

2). The child appears to show frequent engaged towards the marking process but may be disengaged in other parts. Frequently distracted which easily disrupts the child's engagement and effort to improve their work.

3) The child appears engaged towards the marking process but seems unsure of how to act upon teacher's suggested targets. Can be distracted but makes some effort to improve their work.

4). The child appears to have moments of full engagement and is focused towards the marking process. But this engagement is not demonstrated consistently. They are not easily distracted and show effort to maintain improvement based on suggested targets.

5). The child demonstrated high levels of engagement towards all the whole marking process. The child demonstrates high levels of concentration throughout and shows consistent persistence and effort to improve their work in accordance to suggested targets through the marking process.

Appendix 6:

Observation- Engagement Grid Lesson One- HA.

Child 3: HA	Immediately after live marking.	Continued to be engaged between contact with teacher?	5 minutes (1 st live marking)	Continued to be engaged between contact with teacher?	10 minutes after (2 nd live marking)	Continued to be engaged between contact with teacher?	20 minutes after (3 rd live marking)
1). Low engagement towards the marking progress.							
2). Frequent engagement towards the marking process- some distractions/interruptions.							
3). Mainly continuous engagement towards the marking process.							
4). Continuous engagement towards the marking process- with intense focus.				4		4	4
5). Sustained Intense engagement towards the marking process.	5	5	5		5		

1). The child appears to be disengaged towards the marking process, no or very limited communication with the teacher. The child appears disengaged, not looking

at their work or the targets being suggested by the teacher. No of limited effect to improve their work.

2). The child appears to show frequent engaged towards the marking process but may be disengaged in other parts. Frequently distracted which easily disrupts the child's engagement and effort to improve their work.

3) The child appears engaged towards the marking process but seems unsure of how to act upon teacher's suggested targets. Can be distracted but makes some effort to improve their work.

4). The child appears to have moments of full engagement and is focused towards the marking process. But this engagement is not demonstrated consistently. They are not easily distracted and show effort to maintain improvement based on suggested targets.

5). The child demonstrated high levels of engagement towards all the whole marking process. The child demonstrates high levels of concentration throughout and shows consistent persistence and effort to improve their work in accordance to suggested targets through the marking process.

Appendix 7:

Leuven's scale overview (Lesson One) Additional notes.

Leuven's scale overview (Lesson 1) additional notes.

Case Study: LA	Case Study: MA	Case Study: HA
- full engagement. - scored a 5 throughout. - no disruptions. - full concentration in work. - additional adult sitting on table. - use whiteboard to break down question. - using 'jumping method' appeared beneficial to LA pupil. - stayed on task during and after live marking. - Challenge 1- grams to kilograms conversion.	- showed relative focus during intro. - seemed unsure of conversion method at first. - easily distracted talking to peers rather than working → '2'. - during live marking with Miss-child appeared to be focusing - when miss left - easily distracted. - More often live marking occurred the more on task the child demonstrated concentration. - live marking promoted understanding. - more engaged as lesson went on even without the teachers help → '4'.	- fully focused during introduction - 5. - maintained fully focused → appeared to quickly work through the task (5). - showed concentration to correct any mistakes (5). - fully concentrated during live marking at first to see any corrections acted on them straight away. - Appeared to lose full focus at the end of lesson - maybe due to completion of task - Extension? → '4'.

*Teacher - Confused with conversion method during intro.

Appendix 8:

Original blank copy of Timescale Observation Grid.

(Before being changed after lesson one for more detail).

Child 1	Immediately after live marking.	5 minutes	10 minutes after	20 minutes after
1). Low engagement towards the marking progress.				
2). Frequent engagement towards the marking process- some distractions/interruptions.				
3). Mainly continuous engagement towards the marking process.				
4). Continuous engagement towards the marking process- with intense focus.				
5). Sustained Intense engagement towards the marking process.				

1). The child appears to be disengaged towards the marking process, no or very limited communication with the teacher. The child appears disengaged, not looking at their work or the targets being suggested by the teacher. No or limited effort to improve their work.

2). The child appears to show frequent engagement towards the marking process but may be disengaged in other parts. Frequently distracted which easily disrupts the child's engagement and effort to improve their work.

3) The child appears engaged towards the marking process but seems unsure of how to act upon teacher's suggested targets. Can be distracted but makes some effort to improve their work.

4). The child appears to have moments of full engagement and is focused towards the marking process. But this engagement is not demonstrated consistently. They are not easily distracted and show effort to maintain improvement based on suggested targets.

5). The child demonstrated high levels of engagement towards all the whole marking process. The child demonstrates high levels of concentration throughout and shows consistent persistence and effort to improve their work in accordance to suggested targets through the marking process.

Appendix 9:

Transcript interview- After lesson One.

1.What was your favourite part of the lesson?

LA: Learning about the decimal point and how to jump correctly- (from instant feedback from the teacher during live marking).

MA: I enjoyed working on the word questions, because it was a different way of doing the problems and it made you think more.

HA: I enjoyed the converting because it was something we haven't done before and it was challenging.

2. What did you learn during the lesson?

LA: How to work out the answer in different steps and to change the measurements in both ways, from big to small and small to big (in relation to changing kg to g and g to kg. (LA student was only supposed to do g to kg but finished ahead of time and completed extension task)

MA: That when you end up with a decimal point you have to have a number before it you can't just leave it blank, so like it has to be 0. something.

HA: I learned about a new way of marking our work (live marking).

3. Were you aware of your targets before the lesson and what you needed to do to improve your learning?

LA: No. I knew I was on the Bronze challenge because I always am in math. I did the extra task which means I was improving.

MA: No, I didn't check the Bronze Silver and Gold descriptions, but I knew what we were meant to be doing (LO)

HA: Yes, I checked the Bronze Silver and Gold descriptions and I know that I was working on a Gold challenge.

4. Did the live marking help you improve your learning.

LA: Yes, it saved more time and it helped me when I was stuck because Miss explained it even more.

MA: Yes, it has the same effect as marking but its faster so you can get more work done in the lesson.

HA: Yes, it helps you know if you are on track and if you're doing it right so you don't have as much mistakes.

5. Did you like the use of live marking?

LA: Yes, it was interesting and can help you through life and other bits of work like English.

MA: Yes, it helped me speed up my work and get more questions done which means more practise at the way to do things.

HA: I prefer to do all the answers and then get them checked, because normally I don't have lots of mistakes anyway.

6. Did the new way of marking change how you did your work?

LA: Yes, it helped me learn about something new and made me do better work.

MA: Yes, it made me think more, it helped me move my learning on.

HA: No not really. I am quite fast at working anyway and Miss usually marks my work in a lesson before I move to Diamond challenge, and I was expecting mistakes because I don't mind them.

7. Would you like to use live marking again in the future.

LA: Yes, because it was helpful when I was stuck, and I felt like I did more work.

MA: Yes, I would use it again because it speeds up my work and gives me confidence to carry on.

HA: It depends. I would use it again for easy tasks but not for tricky or harder tasks as I need more time to think of the answer and how I am going to work it out.

8. If we were going to do the lesson again what would you change and what would you keep the same.

LA: Keep it the same, using the jumps to find out where the decimal place goes and doing more work with the jumps.

MA: I would keep my confidence because I felt good when I was getting the answers right in a lesson that had tricky stuff to do.

HA: I would change the speed of my work and the lesson. I would keep my confidence the same.

Appendix 10:

Reflection: Lesson One.

Reflection - Lesson One.

Self/Teacher.

- bit anxious due to confusion of conversion method.
- more relaxed during worksheet - children were on task independently.
- jumping process appeared to benefit and help understanding for pupils.

Students.

- good - enjoyed lesson + live marking.
- helped speed of task-work through activity quicker.
- simplified question into smaller steps - jumping process - better way of explaining process.
- showed effort - made us think where we went wrong + what we need to do to correct work.
- decimal place.

Peers- My research partner.

- lesson went well.
- good use of q's to gain understanding of current knowledge (KEEP)
- good knowledge of class - differentiation.
- diff challenge sheets (KEEP).
- Lollypop sticks nominating (KEEP).
- Class discussion (KEEP).
- NEXT TIME (MORE confident delivering lesson - subject knowledge?).

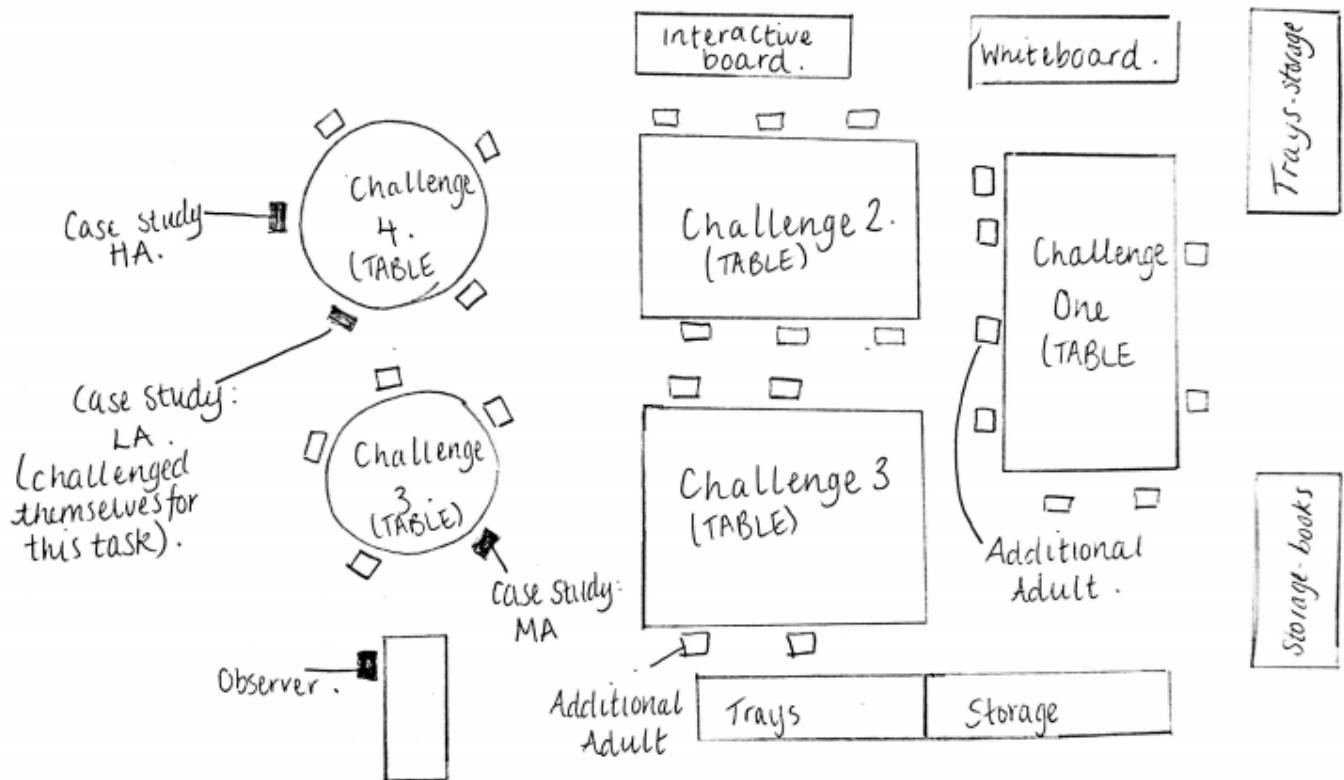
Scholarship- Theoretical Literature.

- time-benefit (Carless, 2006).
- simplifying task for answer (Shulman, 1987).
- correction process → enhance thinking (Drever 2006, Kumar 2005)
- answering questions during intro - thinking (Drever + Kumar 2006, 2005).
- Lollypop sticks (WG, 2010)

Appendix 11:

Seating Plan – School Two-Lesson Two.

Appendix 11: Seating Plan (School Two-Lesson Two).



Appendix 12:

Observation- Engagement Grid Lesson Two-LA.

Child: LA	Immediately after feedback	<u>5 minutes</u>	<u>10 minutes</u> <u>(5 mins after previous)</u>	<u>20 minutes.</u>
1.Low engagement to then marking process.				
2. Frequent engagement towards the marking process - some distractions/inte rruptions				
3. Mainly continuous engagement towards the marking process.				
4. Continuous engagement in the marking process - with intense focus.				<u>4</u>
5. Sustained intense engagement towards the marking process.	<u>5</u>	<u>5</u>	<u>5</u>	
Continued to stay engaged between contact	<u>no</u>	<u>Yes</u>	<u>yes</u>	<u>Yes - became more distracted as the lesson progressed.</u>

LA student failed to be engaged throughout the introduction.

Once he got into the writing process, he was engaged but needed some assistance.

Communicated with peers and Miss to improve his work.

Appendix 13:

Observation- Engagement Grid Lesson Two-MA.

Child: MA	Immediately after feedback	<u>5 minutes</u>	<u>10 minutes</u> <u>(5 mins after</u> <u>previous)</u>	<u>20 minutes.</u>
1.Low engagement to then marking process.				
2. Frequent engagement towards the marking process - some distractions/inte rruptions		<u>2</u>		<u>2</u>
3. Mainly continuous engagement towards the marking process.	<u>3</u>		<u>3</u>	
4. Continuous engagement in the marking process - with intense focus.				
5. Sustained intense engagement towards the marking process.				
Continued to stay engaged between contact	<u>yes</u>	<u>For a brief</u> <u>period after the</u> <u>contact from</u> <u>miss but then</u> <u>became very</u> <u>distracted by</u> <u>other children</u>	<u>When prompted</u> <u>she carried on</u> <u>with a small</u> <u>amount of work</u> <u>before coming</u> <u>distracted again.</u>	<u>As the lesson</u> <u>progressed, she</u> <u>became less and</u> <u>less focus on the</u> <u>task and any</u> <u>advice or</u> <u>contact from</u> <u>Miss didn't seem</u> <u>to enhance</u> <u>concentration.</u>

Appendix 14:

Observation- Engagement Grid Lesson Two-HA.

Child: HA	Immediately after feedback	<u>5 minutes</u>	<u>10 minutes</u> <u>(5 mins after</u> <u>previous)</u>	<u>20 minutes.</u>
1.Low engagement to then marking process.				
2. Frequent engagement towards the marking process - some distractions/inte rruptions				
3. Mainly continuous engagement towards the marking process.				
4. Continuous engagement in the marking process - with intense focus.				
5. Sustained intense engagement towards the marking process.	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
Continued to stay engaged between contact	<u>yes</u>	<u>Yes</u>	<u>yes</u>	<u>yes</u>

Heard her helping the other people on her group the advice given by miss to other pupils.

Appendix 15:

Leuven's scale overview (Lesson two) Additional notes.

Leuven's scale overview (Lesson two)
additional notes.

Case Study: LA	Case Study: MA	Case Study: HA
- Scored a 5 for ~~an~~ majority - continued to stay engaged during and after live marking. - at 20 mins towards end of lesson - child started to become distracted. - was not focused in introduction - had help from miss - spoke to peers also.	- appeared mostly engaged but was distracted at times. (3) - engagement decreased over time as lesson continued (2) - easily distracted by exterior factors (others, lost focus of task). - Focus increased during live marking '3' encouraging her to amend and continue with work. - became disengaged when teacher was not present '2'.	- focused in introduction? - continued to show high concentration through lesson task and live marking process. - guidance from miss was shared with others to promote peer enhancement. - was not distracted at all - level '5' engagement throughout.

Appendix 16:

Transcript Interview (After lesson two).

1). What was your favourite part of the lesson?

MA: I really like the task we did designing the leaflet. To be able to create the leaflet was fun, it isn't like the normal work we've done before.

LA: I liked talking about Wales and trying to tell people what is in our country to come and visit our country.

HA: I really like persuading people. It's something I just feel I am good at, so I enjoyed writing our persuasive leaflets today.

2). What did you learn during the lesson?

LA: I learned about the different places in our country which I didn't know were there. What's it called now...the Devil's Bridge or something it was called, I didn't know that was a thing.

Interviewer 2: Yes, in fact I was there the other week.

LA: Oh, that's good, I might want to go.

(Pause)

MA: I learned about how to persuade people to come to Wales. That was good, as we could say all the interesting things about the different places in our country.

HA: I learned about what we could add to our facts of the different areas to be able to reach my levels. Urm, like what we need to add to make our persuasive writing better. By saying things like 'You don't want to miss out on...' those sorts of things.

3). Were you aware of your targets before the lesson and what you needed to do to improve your learning?

HA: Yes, I was aware of some mistakes before and I edited that before adding it into my leaflet. I learned about more mistakes throughout the lesson.

LA: Not really, I knew I would have targets though, with like spellings.

MA: I know I had changes to make, but as I carried on with my work and you came and read it and told me where some of the changes I needed to make were, that helped me to improve it.

4). What about the target of the lesson, were you aware of what you needed to do to achieve your learning objective?

MA: Yes, that was explained at the start of the lesson what we needed to do.

LA: Yes, I knew what we had to do.

HA: Yes, I knew what we had to do, to make a persuasive leaflet to get people to come and visit Wales.

5) Did the live marking help you improve your learning?

MA: Yes, I think so. I made changes after you read it and showed me what I needed to change. It made me make my work better.

LA: Yes, because it helped me to think of things to add in to make my leaflet better.

HA: Yes, it did. We were giving constant reminder that we were on track or the changes we needed to make.

6) Did you like the new use of marking?

MA: Yes, I really liked it. It helped me make sure my work was better. By adding the changes, I needed help me to make sure my work was right.

LA: Yes, it gives me more confidence.

HA: Yes, it makes me know that I was on the right track. That my work was correct, and I was doing what I needed to do to achieve the learning objective.

7). Did the new use of marking change the way you did your work? How?

HA: Yes, it made me aware of future changes I may need to make for my levels.

MA: Yeah like, once we corrected our work, we could remember those corrections and make sure we wouldn't make the same mistake next time. So, it makes our work better. If that makes sense, yeah.

LA: Yeah so it saves us time really. If we are told about our changes during the lesson. Saves us having to go back over all our work to edit all our mistakes.

HA: Yeah and like it made me happy. Having feedback made me aware of the changes I could make to make my work better.

8). Would you like to use this marking in the future?

HA: Yes, because it helps me be aware and reach my levels.

MA: Rather than waiting until the end of the lesson and completing the work and not seeing the corrections until next time. I do usually look at the corrections normally, but when Miss tells us to. But otherwise I probably wouldn't because sometimes it's a couple of days after.

LA: Yeah, I don't always look back because sometimes we start something new and I forget.

MA: We do get two stars and a wish though at the end of a topic. And I find that really good as well. But I do like they did it today. As we get to know how to make our work better from you during the lesson.

HA: Yeah, I like that too, being told where we could make it better or what we needed to change to make it better straight away.

LA: Yes, I like that too, I think I would like it to be used in more of our lessons while we are doing out work.

9). If you were going to do the lesson again, what would you change or keep the same?

MA: I like the planning and order of our work. I enjoyed researching the facts before and then being able to look back and use our information in our leaflets.

LA: I would keep the task the same. It was fun. I liked that we got to write about famous Welsh things.

HA: Landmarks.

LA: Yes, that's it. I liked writing about the ones I already knew about like the Liberty Stadium. I go there a lot because I am a Swansea City fan, so I wrote why I like going there to try and get people to visit.

HA: I liked that we could talk to our friends about the different landmarks. To help each other with the little changes you said we needed to make, like my spelling and punctuation.

LA: Yeah, I like that too. Being able to help each other and have help from others if we wanted it.

HA: I enjoyed the lesson, I really like doing persuasive writing.

LA: Yes, it was fun, it was not like what we normally do. We could talk and write about things we liked or things that we wanted to learn more about.

MA: Yes, it was different to what we normally do. We could make it more about our choice. We got to choose the places in Wales which we wanted to talk about, and not all of us spoke about the same thing. I liked that the lesson was about Wales, we don't normally get to do things like that.

Appendix 17:

Reflection: Lesson Two:

Reflection Lesson Two.

Self/Teacher.

- went well - children understood task.
- there was key features missing - had to speak to children - develop thinking of what to add.
- child-led - up to children what challenge level they think they can achieve.
- through discussion - children gained better knowledge of mistakes/improvements.

Students.

- enjoy lesson and focus on Wals.
- enjoyed feedback during lesson (KEEP)
- helped children's awareness of being on track - to gain/progress in their levels.
- helped confidence.
- helped aware of mistakes.
- saves time - complete quicker if doing it right - marking response.

Peers- My research partner.

- LA + HA - positive reaction to live marking (keep).
- communication between peers - HA helped/shared conversion from teacher with peers (KEEP).
- independent learning - correct mistakes.
- LA took on challenge 4. (too high? or showed/felt confident).
- change - lollypop to nominate in discussion.
- change - success criteria promote independence to get 10.

Scholarship- Theoretical Literature.

- corrections (Hattie and Yates, 2014).
- challenge - independently use iPad for guidance (Clarke, Hattie and Timperley, 2003)
- changes/ammendments (Hattie + Yates).
- Levels + progress (Hattie + Yates, 2014 and Nicol + McFarlane-Dick, 2006)
- social - communication between peers (Vygotsky 1978 - scaffolding).
- esteem - on track (Clarke, et al, 2003).
- time (Clarke, 2014)
 - response time.
- Lo (Clarke, Timperley + Hattie, 2003 and Sadler 1989).
- lollypop sticks (WGT, 2010).