Appendices

Appendix 1: Observation schedule

Can we improve pupils' quality of writing through student engagement with model answers?

Context:
Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	E.g. Level 5 – Level 2 – Level 4 (changes throughout session)		
Writing task			
Self-assessment			
Improvement in outcome			

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

	Level				
Category	Level 1: No	Level 2: Low	Level 3: Low-Medium	Level 4: High-Medium	Level 5: High
Attention	Actively diverted	No	Low	Moderate	High
Effort	No effort	Low effort	Minimal	Moderate	Sustained
Quality of work produced	No or Poor	Limited and of a poor standard	Minimal	Adequate	High

Appendix 2: Interview questions

Question	Pupil A	Pupil B	Pupil C
How did you feel coming into the lesson?			
What did you think of the lesson?			
What did you think of the 'mark your teachers work' task? - Why?			
Did it help you to go through the 'mark your teacher work' as a class? - Why?			
How did you feel when writing your (insert subject word here)? - Why?			
What did you find the most difficult during the lesson?			
Do you know what you need to do to improve your writing, moving forward? - How do you know this?			

Appendix 3: Reflection pro-forma

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
2. How did you feel about the lesson? What was the pupils' response?
3. What was good or bad about the lesson?
4. Evaluation - What does the literature say about this situation?
5. Conclusion
6. Next steps / Action plan

Appendix 4: Lesson plan for lesson study 1

Time	**Activities/Methodology/Key Concepts** (Teacher's Role – including key teaching points and key questions)	**Pupil Tasks** (Pupils' role -including differentiation strategies, engagement in formative assessment and homework)	**Resources** (Including Health and Safety requirement)
Opening phase (with links to prior learning)	1. How many imperative verbs and adverbs can you think of? Science related.	1. Pupils to contribute as many imperative verbs and adverbs related to science as possible.	1. Method writing ppt.
Teaching & Core Learning	1. Success criteria for method writing. 2. Mark your teacher's work – poor example. 3. Class feedback using visualiser. 4. Mark your teacher's work – good example. 5. Feedback as a class – what were the good things? 6. Improve your own method using the drag force method.	1. Discuss as a class the success criteria for method writing. Hand out sheet containing the success criteria. 2. Pupils to mark the resource according to the school's marking policy and the success criteria for method writing. 3. Pupils to identify this is the poor example. Pupils to share some corrections they made using the visualiser. 4. Pupils to mark the resource according to the school's marking policy and the success criteria for method writing. 5. Pupils to identify that this is a good example and verbally feedback why. 6. Pupils to rewrite their drag force according to what they learnt using the success criteria.	1. Method writing ppt. and success criteria hand out. 2,3,4 &5. Method writing ppt and mark your teacher's work examples. 6. Pupils previous methods.
Plenary	1. Self-assess. 2. Self evaluation www and ebi according to the success criteria.	1. Pupils to assess their own work according to the success criteria and compare their findings to the previous written method. 2. Pupils to self evaluate and produce a www and ebi on a post-it note.	1. No resources needed.

Appendix 5: Resources for lesson study 1

Success Criteria

- Have they used capital letters?
- Is their spelling correct?
- Have they used punctuation?
- Have they started their sentences with imperative verbs?
- Have they used adverbs to describe how to do something?
- Have they avoided using words such as 'Firstly' and 'Next'.
- Have they avoided using first person words like 'your'.
- Have they used numbered steps?

Mark your teacher's work

Firstly, collectt all your equiptment and set it up.

Then, place the rular in the clam stand and match the zero on the rular to the bottom of the spring.

attach the mass to the sprang.

After that see how long the spring has extended.

Then you can repet the experiment.

Mark your teacher's work

~~Firstly,~~ Collectt all your equiptment and set it up.

~~Then,~~ Place the rular in the clamp stand and match the zero on the rular to the bottom of the spring.

Attach the mass to the sprang.

~~After that see how long~~ Measure how much the spring has extended.

~~Then you can~~ repet the experiment.

Mark your teacher's work

1. Collect all the equipment and set it up carefully.

2. Place the ruler in the clamp stand and accurately line up the zero on the ruler to the bottom of the spring.

3. Carefully attach a 100 g mass to the end of spring so that it drops safely and the spring doesn't break.

4. Measure how long the spring has extended using the ruler.

5. Repeat the experiment with 200 g, 300 g, 400 g, 500 g and 600 g attached to the spring.

Mark your teacher's work

1. Collect all the equipment and set it up carefully.

2. Place the ruler in the clamp stand and accurately line up the zero on the ruler to the bottom of the spring.

3. Carefully attach a 100 g mass to the end of spring so that it drops safely and the spring doesn't break.

4. Measure how long the spring has extended using the ruler.

5. Repeat the experiment with 200 g, 300 g, 400 g, 500 g and 600 g attached to the spring.

Appendix 6: Observation notes for lesson study 1 from both observers

Can we improve pupils' quality of writing through student engagement with model answers?

Context:
Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	3	4	4
Writing task	4	5	3
Self-assessment	4	5	1 → 2 → 3
~~Improvement in outcome~~ self assessment 2	4	5	3
Improvement in outcome.	Level 2 → Level 3	Level 3 → Level 5	Level 5 → Level 5

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

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Can we improve pupils' quality of writing through student engagement with model answers?

Context: Lesson 1

Engagement with the different stages of the lesson:

		Level of engagement observed		
	Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
①	**Teacher-modelled assessment**	3	4	4
③	**Writing task**	4	5	3
②	**Self-assessment**	4	5	1-2-3
④	**Improvement in outcome**	2→3	3→5	5→5

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

Appendix 7: Interview transcripts for lesson study 1 from both observers

Question	Pupil A	Pupil B	Pupil C
How did you feel coming into the lesson?	Excited! I enjoy science.	Happy. I enjoy science as miss is a good teacher.	Happy.
What did you think of the lesson?	It was fun.	It was fun and different.	It was good.
What did you think of the 'mark your teachers work' task? - Why?	I enjoyed it because I liked telling miss that she was wrong.	I enjoyed it because it was different.	It made it easier than normal.
Did it help you to go through the 'mark your teacher work' as a class? - Why?	It explains more of what we need to do.	I agree.	Yes, I agree.
How did you feel when writing your individual ~~response~~ method? - Why?	Helped take it up another level.	Good to compare and improve. And it helped me to improve my vocabulary.	It helped writing my own because we had an example from miss.
What did you find the most difficult during the lesson?	Finding adverbs that make sense.	The good teacher model was hard as it was difficult to see what was wrong and right.	Self assessment and writing task.
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	Yes because this was communicated.	Yes as it was explained more and clear on the board.	Yes, I agree.

Question	Pupil A	Pupil B	Pupil C
How did you feel coming into the lesson?	Excited because I love science	Happy, I enjoy cos miss is a good teacher.	Happy
What did you think of the lesson?	I thought it was fun	I thought it was fun too + different	yes, Good
What did you think of the 'mark your teachers work' task? - Why?	I liked telling miss she was wrong, that was fun.	It was fun and a bit different	It was fun, easier than normal
Did it help you to go through the 'mark your teacher work' as a class? - Why?	Because it explains more of what we need to do.	I agree	yes, I agree
How did you feel when writing your (method)? - Why?	I could improve by upping my level.	We was able to compare.	It was easier because we had an example
What did you find the most difficult during the lesson?	Finding adverbs that make sense.	Misses second paragraph was hard, difficult to see what needed correcting	Self assessment and writing task.
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	yes, because this was communicated.	Explained more, the steps on the board.	I agree.

Appendix 8: Reflection pro-formas from all researchers for lesson study 1

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher engaged pupils in discussion on success criteria for method writing. Collective mark your teachers work got pupils engaged and involved as active participants which aided independent improvement on previous work.
2. How did you feel about the lesson? What was the pupils' response?
I felt the lesson was organised well but the outcome to do your own (improve) was challenging as it was a repeated task. Pupils responses were varied with some enjoying improvement and others not wanting to rewrite work.
3. What was good or bad about the lesson?
Good = Pupils were engaged with high involvement in the mark your teachers work task (bad and good example). Bad = Some pupils were off task during the independent writing part of the lesson as they didn't want to rewrite.
4. Evaluation - What does the literature say about this situation?
Lucy M. Davies (2020) developed the idea that levels of work need to be high enough for a pupil to remain engaged, but not too hard that would result in them not being able to access the work. If a lesson is too easy then pupils will generally become disengaged.
5. Conclusion
The research data developed from this lesson was very interesting, as the level of challenge was not something we thought about prior to undertaking the first of the observations. Although, all the tasks worked well in general with all stakeholders producing work that we could use in our research effectively.
6. Next steps / Action plan
The same methods of modelling should be used for next lesson, although amending the writing task could be done to significantly improve engagement and quality of writing. This could have been done by having to write a new piece of work rather than rewriting an old one.

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher engaged pupils on learning objectives and success criteria. Teacher shared two model answers (good + bad) for pupils to mark individually before sharing response as a group.
2. How did you feel about the lesson? What was the pupils' response?
I felt the lesson went well, and had full attention of pupils up until the part they had to write their own method. Pupil response at this stage varied - some enjoyed improving their work others didn't see why this was needed.
3. What was good or bad about the lesson?
Good = pupils enjoyed marking the bad piece of teacher's work individually and as a group, majority of pupils actively engaged. Bad = individual writing activity is where pupils became off task + disengaged.
4. Evaluation - What does the literature say about this situation?
If lesson is too easy pupils will disengage. Pupils require challenge to be engaged. Ref: Davies (2020) Mastering writing at Greater Depth.
5. Conclusion
Pupils highlighting obviously bad work was a good engagement task. However, engagement wavered when having to re-write bwork from previous lesson.
6. Next steps / Action plan
Some model for next lesson, but amend writing task to new piece of work. This ensures <u>all</u> pupils are starting from the same point.

Reflection Pro-Forma

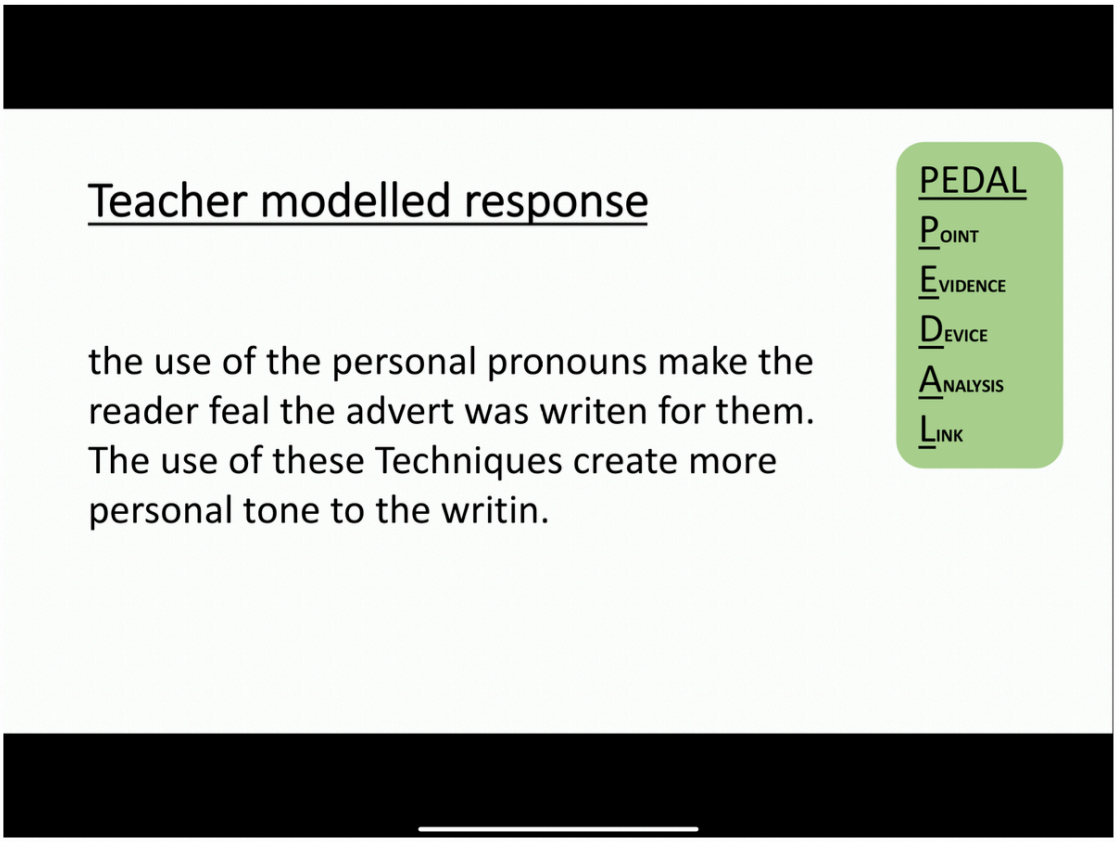
Using Gibbs Model:

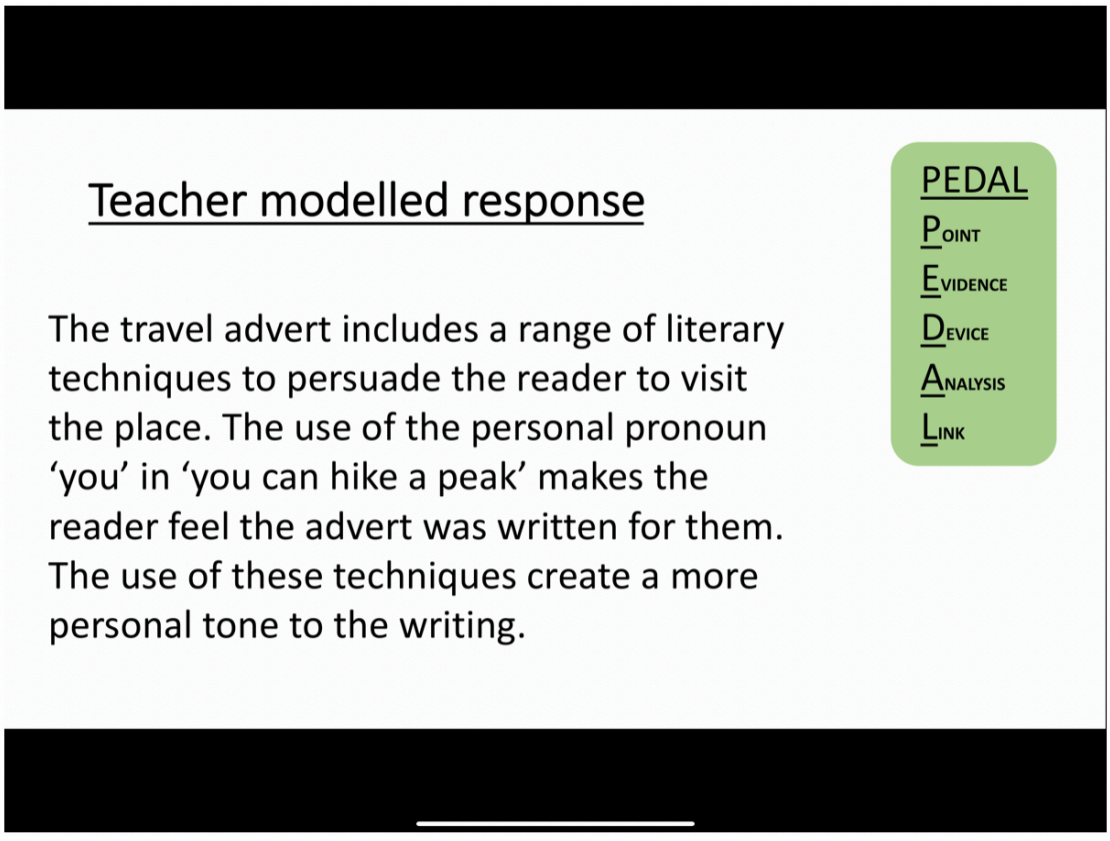
1. Describe what happened during the lesson.
Starter – List as many imperative verbs and adverbs relating to method writing as possible. The success criteria was covered in detail and was read over collectively. Pupils then marked their teacher's work, a good example and a poor example. Pupils fed back on the visualiser and marked the work according to the success criteria. Pupils then applied their learning by rewriting their previous method.
2. How did you feel about the lesson? What was the pupils' response?
Pupils were very engaged in the starter and mark your teacher's work task. Pupils enjoyed giving feedback stating that the teacher had a 'f: Pupils were clearly able to see the second example was better and could explain why. Pupils were able to assess their previous method and make improvements.
3. What was good or bad about the lesson?
Good – Pupils were highly engaged in the teachers model answers and were able to identify the mistakes according to the success criteria Bad – The high attaining pupil strayed off task during the lesson. This is thought to be due to the pupil having minimal to correct + therefore was not challenged enough.
4. Evaluation - What does the literature say about this situation?
Pupils strayed off task during the re-write your method task. After a literature search it was believed that this was due to the task lacking challenge. Therefore more challenge will be added moving forward.
5. Conclusion
Overall pupils engaged with the mark your teacher's work task and communicated its usefulness during the interview. However, the pupils were limited by the amount of challenge, this was an unforseen issue
6. Next steps / Action plan
In the next lesson study the pupils will be asked to write an entirely new piece of work to avoid pupils straying off task as a result of the lack of challenge

Appendix 9: Lesson plan for lesson study 2

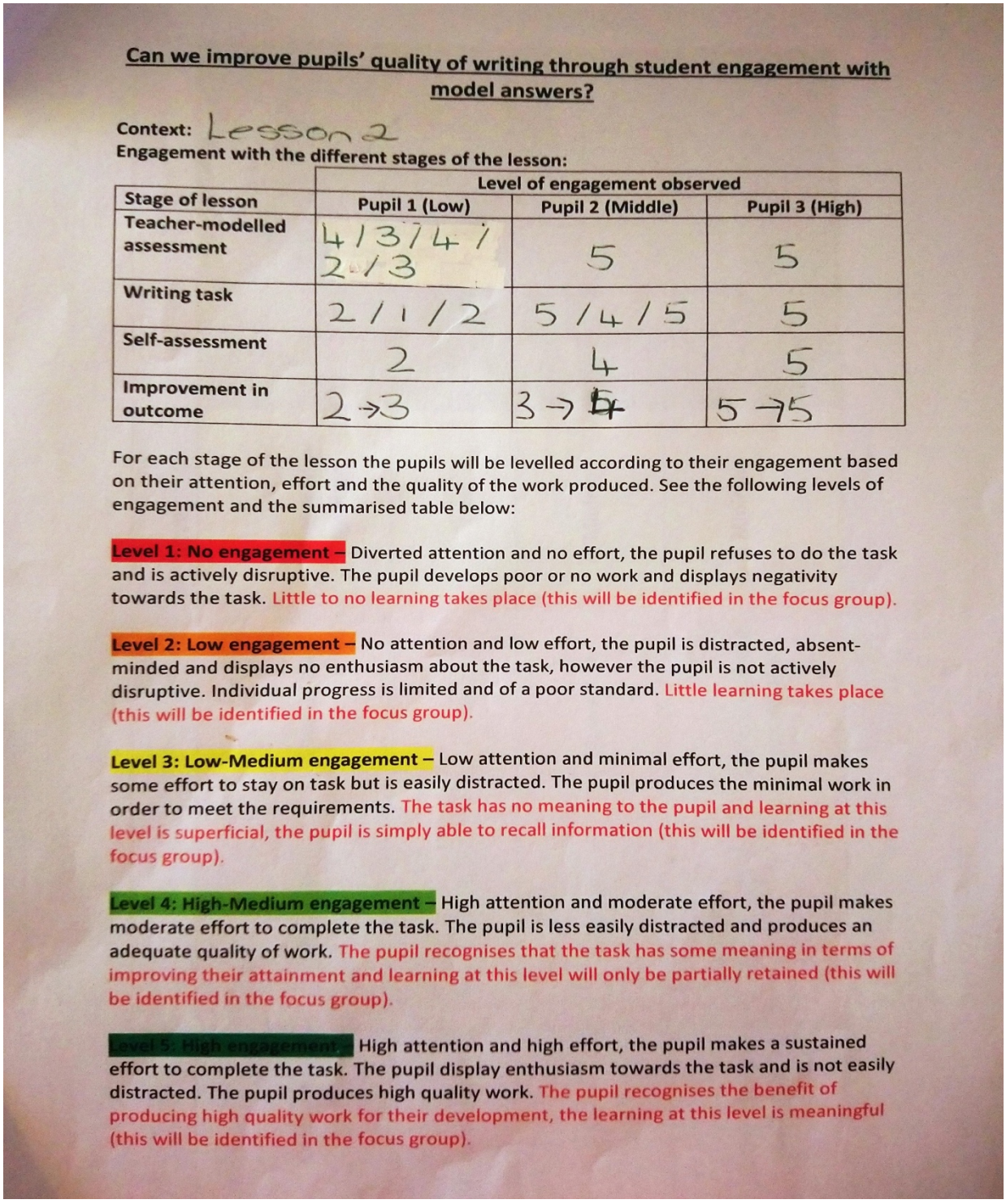
Time	**Activities/Methodology/Key Concepts** (Teacher's Role – including key teaching points, differentiation strategies and key questions)	**Pupil Tasks** (Pupils' role –including differentiation, engagement in formative assessment and homework)	**Resources** (Including Health and Safety requirement)
Opening phase (with links to prior learning)	Normal 10 minutes independent reading for pupils and teacher. • RECAP Questioning lead by teacher. ➢ What is persuasive language? ➢ Why is it used? ➢ What other techniques do they use in travel adverts?	➢ 10 minutes independent reading for pupils and teacher. • Pupils to engage with questioning.	• Reading books.
Teaching & Core Learning	• Success criteria for individual response. • Mark your teachers work – poor example. • Class feedback using IWB. • Mark your teachers work – good example. • Feedback as a class – what was good about the example? Were all the points in the success criteria met? • Write your own individual response using the examples for guidance and success criteria.	• Discuss as a class the success criteria for individual response writing in a 'how' question. • Pupils to mark the teachers poor modelled response and to identify why it is poor. Pupils must then share the corrections they made on the IWB. • Pupils to identify the reasons the good example is better than the first exemplar, they must be ready to give verbal feedback. • Pupils to write their own individual response using the examples for guidance and the success criteria.	• Poor example handout. • Good example handout. • Success criteria.
Plenary	• Self assess WWW and EBI.	• Pupils to assess their own work according to the scucess criteria and compare their findings to previous work. • Pupils to self evaluate and produce a WWW and EBI for themselves.	• Purple pen to assess.

Appendix 10: Resources for lesson study 2





Appendix 11: Observation notes for lesson study 2 from both observers



Can we improve pupils' quality of writing through student engagement with model answers?

Context: Lesson 2

Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	4/3/4/ 2/3	5	5
Writing task	2/1/2	5/4/5	5
Self-assessment	2	4	5
Improvement in outcome	2→3	3→~~5~~	5→5

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

Can we improve pupils' quality of writing through student engagement with model answers?

Context:

Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	4 → 3 → 4 → 2 → 3	5	5
Writing task	2 → 1 → 2	5 → 4 → 5	5
Self-assessment	2	4	5
Improvement in outcome	2 → 3	3 → 4	5 → 5

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

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Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

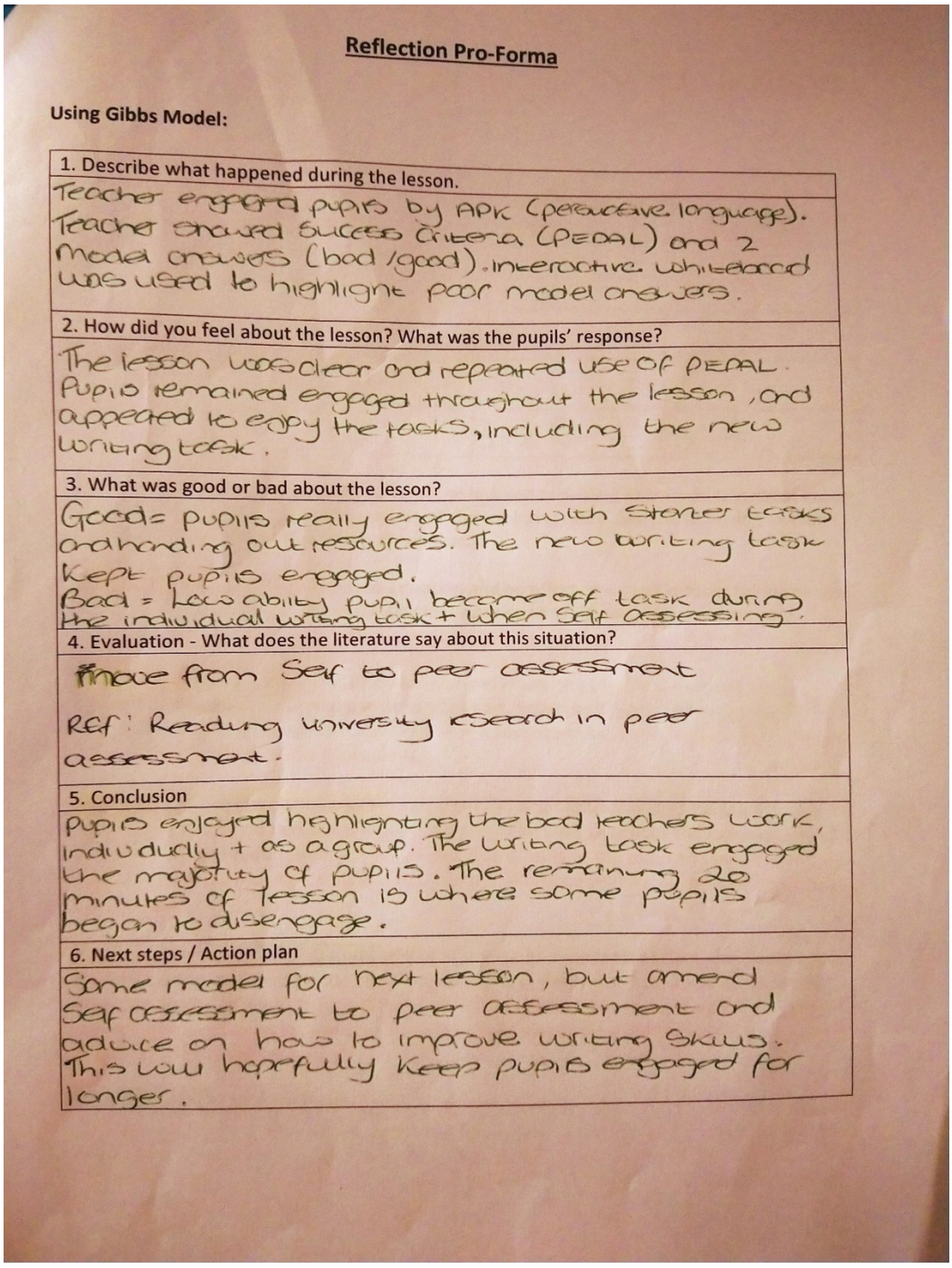
Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

Appendix 12: Interview transcripts for lesson study 2 from both observers

Question	Pupil A H	Pupil B M	Pupil C L
How did you feel coming into the lesson?	Calm, had plenty of lessons in here before.	Alright, tense to see what we are doing.	Just like writing, feel good to be in here, especially English.
What did you think of the lesson?	Really fun, English is fun because we all contribute + end up with great work in the end	Good + I liked doing travel adverts	Calm + relaxing + sitting down writing
What did you think of the 'mark your teachers work' task? - Why?	Liked it, learning from teachers mistakes proves teachers are wrong.	Intimidating, up your grill straight away if do something wrong.	Good + excellent
Did it help you to go through the 'mark your teacher work' as a class? - Why?	Not sure if prefer doing it alone or contributing ideas as a class	Yeah good, everybody can give opinions	yes it did whenever marked it feels good - has an opportunity.
How did you feel when writing your (insert subject word here)? - Why?	Use lots of vocabulary Nice + Calm sitting down + writing	~~Felt~~ good, in case I need ideas. Know lots of words to use. Inspires me.	Good, got lots of writing done.
What did you find the most difficult during the lesson?	Didn't find anything hard.	Sitting down hearing others. Feels hard (easy people watching)	Do mistakes puts pressure on you
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	Use more complex sentences and more descriptive vocabulary.	yes	yes, improve.

Question	Pupil A High	Pupil B Middle	Pupil C Low
How did you feel coming into the lesson?	Calm, I've had plenty of lessons in here before	Alright, a little tense to see what we were doing.	Likes writing feels good to be in this room.
What did you think of the lesson?	Fun. English is fun because we all contributed and end up with something great in the end.	Calm and relaxing. Sitting down writing	Good. Like doing travel adverts.
What did you think of the 'mark your teachers work' task? - Why?	I liked it. Learning from the teacher's mistakes.	Intimidating. They will be up in your grill if you get it wrong.	Good, excellent.
Did it help you to go through the 'mark your teacher work' as a class? - Why?	Not sure if I prefer doing it alone or contributing ideas as a class.	Yeah good, everyone can put apinion in.	Yes it did.
How did you feel when writing your individual response? - Why?	Use lots of vocabulary Nice and calm sitting down and writing	Felt good, know lots of words.	felt good, got lots of writing done.
What did you find the most difficult during the lesson?	Didn't find anything hard.	Quite hard going up, have 20 odd people looking at you.	Pressure in case you made a mistake.
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	Use more complex sentences and more descriptive vocabulary.	Yes, improve my hand writing. *Did the teacher's examples help?* Yeah.	Yeah.

Appendix 13: Reflection pro-formas from all researchers for lesson study 2



Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher engaged pupils by APK (persuasive language). Teacher showed success criteria (PEDAL) and 2 model answers (bad/good). Interactive whiteboard was used to highlight poor model answers.
2. How did you feel about the lesson? What was the pupils' response?
The lesson was clear and repeated use of PEDAL. Pupils remained engaged throughout the lesson, and appeared to enjoy the tasks, including the new writing task.
3. What was good or bad about the lesson?
Good= pupils really engaged with starter tasks and handing out resources. The new writing task kept pupils engaged. Bad = Low ability pupil became off task during the individual writing task + when self assessing.
4. Evaluation - What does the literature say about this situation?
Move from Self to peer assessment Ref: Reading University research in peer assessment.
5. Conclusion
Pupils enjoyed highlighting the bad teachers work, individually + as a group. The writing task engaged the majority of pupils. The remaining 20 minutes of lesson is where some pupils began to disengage.
6. Next steps / Action plan
Same model for next lesson, but amend self assessment to peer assessment and advice on how to improve writing skills. This will hopefully keep pupils engaged for longer.

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
The teacher engaged the pupils by APK to start to remind them of persuasive language. Teacher show success criteria of PEDAL and modelled a poor example and an example with was 100%. Teacher used the interactive whiteboard for feedback. Pupils then wrote their individual response based on what they had learnt.
2. How did you feel about the lesson? What was the pupils' response?
Pupils were very engaged from the start of the lesson and engaged well in the mark your teacher's work task. They enjoyed pointing out all the mistakes and were able to assess the work according to the success criteria. The majority of the pupils transfered this to their own learning. The low attaining pupil's engagement dropped off during the written task.
3. What was good or bad about the lesson?
Good - Pupils were very engaged with the starter and model answers, most pupils applied this marking criteria to their own work. Pupils engaged well with the added challenge of writing a new piece of work. Bad - Low attaining pupil strayed off task during the written task. Pupils became disengaged during the self-assessment.
4. Evaluation - What does the literature say about this situation?
Pupils were off task during the self-assessment task. After looking at the literature it was identified that peer-assessment could be used as a challenge and approach to deepen the pupils learning by building upon their prior knowledge.
5. Conclusion
Evident from the engagement levels and the focus group interview that the pupils enjoyed engaging in the mark your teacher's work task. However pupils strayed off task during the self assessment task.
6. Next steps / Action plan
Add a peer assessment step to the lesson plan in an attempt to keep the pupils engaged during the AfL stage. Follow this up by self assessment?

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher engaged pupils by asking APK questions to begin the lesson and to remind them of persuasive language. Teacher showed success criteria of PEDAL and modelled a poor example and ~~an~~ a good example. Pupils then had to write their own response based on what they have learnt.
2. How did you feel about the lesson? What was the pupils' response?
Pupils were very engaged from the start of the lesson and engaged well in the mark your teachers work. The pupils seemed to enjoy pointing out all the mistakes and were able to assess the work accordingly against the success criteria. The mayority of the pupils transferred this into their own work.
3. What was good or bad about the lesson?
Good- Pupils were very engaged with the starter and the model answers. Most pupils applied this marking criteria to their own written work. Bad- Low ability pupil strayed off task during the individual written task and self assess.
4. Evaluation - What does the literature say about this situation?
Literature seems to favour peer assessment over self assessment which would be a good solution to improve on my poor point from the lesson. University of Reading details how peer assessment is a good way to achieve deeper learning, alongwith pupils being able to learn from eachothers successes and mistakes.
5. Conclusion
The overall lesson allowed pupils to improve on their quality of writing and engage with their own writing, although this doesn't work for some lower ability pupils. Sadler and Good (2006) record that by using peer assessment there are metacognitive benefits that will lead to pupils improving their quality of work during AFL.
6. Next steps / Action plan
Change self assessment to peer assessment in an attempt to keep all pupils engaged during the AFL stage. Keep using IWB to get pupils involved in the learning as this keeps engagement levels high during that part of the lesson.

Appendix 14: Lesson plan for lesson study 3

Time	**Activities/Methodology/Key Concepts** (Teacher's Role – including key teaching points and key questions)	**Pupil Tasks** (Pupils' role -including differentiation strategies, engagement in formative assessment and homework)	**Resources** (Including Health and Safety requirement)
Opening phase (with links to prior learning)	1. What is needed to describe a climate?	1. Pupils to contribute as many key features needed to describe a climate as possible.	Powerpoint
Teaching & Core Learning	1. Success criteria for climate writing. 2. Mark your teacher's work – poor example. 3. Class feedback using whiteboard. 4. Mark your teacher's work – good example. 5. Feedback as a class – what were the good things? 6. Improve your own climate description using the sucess criteria for guidance.	1. Discuss as a class the success criteria for climate description. Hand out sheet containing the success criteria. 2. Pupils to mark the resource according to the school's marking policy and the success criteria for describing a climate. 3. Pupils to identify this is the poor example. Pupils to share some corrections they made on the whiteboard. 4. Pupils to mark the resource according to the school's marking policy and the success criteria for describing a climate. 5. Pupils to identify that this is a good example and verbally feedback why. 6. Pupils to rewrite their own climate description (Tundra or Hot Desert) according to what they learnt using the success criteria.	Powerpoint and resources
Plenary	1. Peer-assess. 2. Peer evaluation www and ebi according to the success criteria.	1. Pupils to assess peer work according to the success criteria. 2. Pupils to peer evaluate and produce a www and ebi in their books.	Pupil books

Appendix 15: Resources for lesson study 3

Mark your Teachers Work – Bad Example

Swansea is in wales and it is temperate which means it is hot cold rainy dry.

the Land varies allot + has mountains and forests and beaches, cities.

The rite clothes you need is everything cos the whether is all ways different?

Some animals are found in here are squirrels foxes And hedgehogs And there is plants like bluebells, daisy's and daffs

Mark your Teachers Work – Good Example

Swansea is a coastal city located in Wales and is part of the United Kingdom. The UK has a temperate climate, this means it is not too hot, cold, wet or too dry.

The landscape varies greatly and includes mountains, forests, beaches and cities.

The most appropriate clothing to wear would depend on the time of year as the UK have four seasons.

Some animal species found here are squirrels, foxes and hedgehogs. There are also many plants such as the bluebell, daisy and daffodil.

Success Criteria

- Where it is located and the type of climate it has.
- Describe the landscape.
- The clothing required for this climate.
- The animals and plants found there.

Use Geography Key Words
Expand your sentences.

Remember:

SP	CP
PUNC	Grammar

Appendix 16: Observation notes for lesson study 3 from both observers

Can we improve pupils' quality of writing through student engagement with model answers?

Context:
Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	5 → 3	5	5
Writing task	5	5 → 4 → 5	4 → 5
Self-assessment	5	5	5
Improvement in outcome	Level 2 → Level 4.	Level 3 → Level 3.	Level 5 → Level 5.

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

Can we improve pupils' quality of writing through student engagement with model answers?

Context:

Engagement with the different stages of the lesson:

	Level of engagement observed		
Stage of lesson	**Pupil 1 (Low)**	**Pupil 2 (Middle)**	**Pupil 3 (High)**
Teacher-modelled assessment	5 → 3 (during explanation)	5	5
Writing task	5	5 → 4 → 5	4 → 5
Self-assessment	5	5	5
Improvement in outcome	2 → 4	3 → 3	5 → 5

For each stage of the lesson the pupils will be levelled according to their engagement based on their attention, effort and the quality of the work produced. See the following levels of engagement and the summarised table below:

Level 1: No engagement – Diverted attention and no effort, the pupil refuses to do the task and is actively disruptive. The pupil develops poor or no work and displays negativity towards the task. Little to no learning takes place (this will be identified in the focus group).

Level 2: Low engagement – No attention and low effort, the pupil is distracted, absent-minded and displays no enthusiasm about the task, however the pupil is not actively disruptive. Individual progress is limited and of a poor standard. Little learning takes place (this will be identified in the focus group).

Level 3: Low-Medium engagement – Low attention and minimal effort, the pupil makes some effort to stay on task but is easily distracted. The pupil produces the minimal work in order to meet the requirements. The task has no meaning to the pupil and learning at this level is superficial, the pupil is simply able to recall information (this will be identified in the focus group).

Level 4: High-Medium engagement – High attention and moderate effort, the pupil makes moderate effort to complete the task. The pupil is less easily distracted and produces an adequate quality of work. The pupil recognises that the task has some meaning in terms of improving their attainment and learning at this level will only be partially retained (this will be identified in the focus group).

Level 5: High engagement – High attention and high effort, the pupil makes a sustained effort to complete the task. The pupil display enthusiasm towards the task and is not easily distracted. The pupil produces high quality work. The pupil recognises the benefit of producing high quality work for their development, the learning at this level is meaningful (this will be identified in the focus group).

Appendix 17: Interview transcripts for lesson study 3 from both observers

Question	Pupil A	Pupil B	Pupil C
How did you feel coming into the lesson?	Excited because I like geography.	Same.	Happy and same as the others.
What did you think of the lesson?	I learned lots of things.	interesting	Very good. I liked the option of a hot or cold desert.
What did you think of the 'mark your teachers work' task? - Why?	It was very fun and was good to correct the teacher.	Yes.	Yes, to correct my teachers work.
Did it help you to go through the 'mark your teacher work' as a class? - Why?	Yes because it is good to hear other peoples opinions and different views.	Sharing your opinion with others in the class.	Yes.
How did you feel when writing your individual response? - Why?	I felt comfortable using the layout to help me and having the success criteria in my book.	To help you.	I was concentrated.
What did you find the most difficult during the lesson?	I found it difficult in the good one because I couldn't find the mistake.	Difficult because there was so much to correct because miss can't write. Too much in the first one.	correcting the teachers work too.
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	Yes as I can look back in my book in future and use success criteria.	Yes, can improve it.	Yes. I need to watch my full stops and punctuation.

Question	Pupil A ~~Low~~ High	Pupil B Middle	Pupil C Low
How did you feel coming into the lesson?	Excited, I like geography	Same	Happy, same.
What did you think of the lesson?	I learned lots of things	Interesting	Very Good Option of ~~desert~~ hot desert / cold
What did you think of the 'mark your teachers work' task? - Why?	Very fun Was good to correct the teacher	Yeah	Yeah, to correct our teachers work
Did it help you to go through the 'mark your teacher work' as a class? - Why?	Yeah. Other's peoples opinions + different views	Sharing your opinion to others	Yeah.
How did you feel when writing your (insert subject word here)? - Why?	Comfortable. Use layout to help you and success criteria in your book.	To help you.	Concentrated
What did you find the most difficult during the lesson?	Difficult in the good one.	Difficult because so much to correct because miss can't write. Too much in the first one.	Correcting the teacher's work
Do you know what you need to do to improve your writing, moving forward? - How do you know this?	Yes Can look back in the book, in future can look back and use Success criteria.	Can improve it Yeah.	Yes. Full stops + punctuation.

Appendix 18: Reflection pro-formas from all researchers for lesson study 3

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher provided pupils with a success criteria on a handout prior to the start of the lesson. Next, the teacher did a recap on the topic using questioning and APK on key words. Then, the teacher provided pupils with a good and bad example of her own work for them to mark, discuss and re-write.
2. How did you feel about the lesson? What was the pupils' response?
I felt the engagement of the pupils was at a high level throughout the lesson, therefore improving their quality of writing. The pupils responded well to marking their teachers work and looking for mistakes, then writing these on the board to share with the rest of the class.
3. What was good or bad about the lesson?
Good- Changing from self assessment in the previous observations, to peer assessment in this lesson kept engagement high and tested the pupils knowledge on the success criteria. Bad- Pupils became disengaged at stages during explanation and discussion due to the level of task being too easy for some.
4. Evaluation - What does the literature say about this situation?
The research from the previous two observations on level of challenge and effective assessment worked very well to improve the lesson on this occasion, however as mentioned the level of challenge dropped to too easy in this final observation.
5. Conclusion
Overall, the entirety of the observations gathered successful data to develop the research project and evaluate the findings.
6. Next steps / Action plan
All data will be documented and analysed for the research project final draft.

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
The teacher provided success criteria on entrance to the class. They then recapped the climates with the pupils and key subject specific literacy. The class then assessed the poor and good example and the mark scheme and success criteria were modelled on the board with the pupils. Pupils then wrote their own description and peer assessed according to the success criteria -
2. How did you feel about the lesson? What was the pupils' response?
The pupils were engaged in the lesson especially in the poor example and the sharing of mistakes on the board. Pupils were engaged and put effort into the written task, asking for help where needed. Pupils responded well to the peer assessment and engaged in the success criteria.
3. What was good or bad about the lesson?
Good - Changing to peer assessment kept the pupils engaged throughout and tested their knowledge of the success criteria. Bad - Pupils became disengaged during the explanation and discussion.
4. Evaluation - What does the literature say about this situation?
The inclusion of challenge by asking pupils to complete written work from scratch and the added peer assessment worked well for this study.
5. Conclusion
Once again the pupils seem engaged with the model answers This was also communicated during the focus group interview.
6. Next steps / Action plan
Gather all the data and analyse. The effect of model answers on pupils' writing with be assessed.

Reflection Pro-Forma

Using Gibbs Model:

1. Describe what happened during the lesson.
Teacher provided success criteria when pupils entered classroom. Recapped previous lessons, using AfL. Provided Good + Bad example of Britains climate. Requested pupils complete their own description, choice of 2 other climates. Peers marked.
2. How did you feel about the lesson? What was the pupils' response?
I felt engagement was high throughout lesson, Pupils enjoyed mark teachers work. Pupils also seemed to enjoy the writing task, most students were actively doing this while teacher circulated room.
3. What was good or bad about the lesson?
Good - change from self assess to peer assess maintained engagement levels. Bad - Engagement levels fluctuated during some stages of lesson eg. explanation stage.
4. Evaluation - What does the literature say about this situation?
Further research challenge of work.
5. Conclusion
Sufficient data was collected to show an improvement to the lesson.
6. Next steps / Action plan
Analyse data + determine what next steps required if a further lesson was conducted.