

Appendix for ECAD7004 Assignment

Research title: How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini whiteboards in secondary education?

Student number: 1901124

Appendix 1. Observation sheet template

<u>Observation Schedule:</u>	
Number of Participants in Starter Activity	
Number of Participants in Plenary Activity	
Participant 1 Starter Answer & Rating 1-10	
Participant 2 Starter Answer & Rating 1-10	
Participant 3 Starter Answer & Rating 1-10	
Participant 1 Plenary Answer & Rating 1-10	
Participant 2 Plenary Answer & Rating 1-10	

Participant 3 Plenary Answer & Rating 1-10	
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Appendix 2. Observation sheet for Research Lesson #1

Observation Schedule: 3 rd February 2020- 11:15-12:15	
Number of Participants in Starter Activity	Building on prior knowledge 31- all engaged in starter activity of writing on boards Provided an answer
Number of Participants in Plenary Activity	31 Recapping the lesson
Participant 1 Starter Answer & Rating 1-10	Listed places for Q2- reading answer from whiteboard
Participant 2 Starter Answer & Rating 1-10	Needed writing time extension "It would be; stressful, depressing and traumatizing" Listed answers to other questions- clear and loud talking Words used/written was correct
Participant 3 Starter Answer & Rating 1-10	"Long, stressful, upsetting, exhausting, Painful, Hard, Tedious, Restless, Racist" Listed answers to Q2, not Q3 Read answer quietly Answer discussed
Participant 1 Plenary Answer & Rating 1-10	"It was really true/upsetting" "Not getting fed enough" "Not getting by [unreadable word]" "Abuse" "Starvation" Drawing not done
Participant 2 Plenary Answer & Rating 1-10	"I think life for the slaves was traumatising, stressful and depressing"

	"I think life was bad because you knew you were going to be taken" 3 rd sentence not done "Traumatising" "Slaves" "Forced" (3 key words done instead of 2) Drawing not done
Participant 3 Plenary Answer & Rating 1-10	"They could not do what they want" "They works everyday for as long as they had to" "They were tired" 2 key words not done Drawing not done

Appendix 3. Observation sheet for Research Lesson #2

Observation Schedule: 6 th February 2020- 9:50-10:50	
Number of Participants in Starter Activity	26 pupils- all engaged
Number of Participants in Plenary Activity	26 pupils- all engaged
Participant 1 Starter Answer & Rating 1-10	Quick to finish the task All sentences and key words completed "You can create spreadsheets and tables" "You can make bar, line and climate graphs and pie charts" "Using formulas, you can find averages and do basic mathematical calculations" "Formulas" "SUM"
Participant 2 Starter Answer & Rating 1-10	1 key word missing All sentences and one key word completed "To sort out information into organised tables" "To calculate sums and/or equations" "To make graphs" "Formula"
Participant 3 Starter Answer & Rating 1-10	All sentences completed. No key words. "Use excel to make graphs" "Use excel to make pie charts" "Use excel to check how much money you have"

Participant 1 Plenary Answer & Rating 1-10	Very detailed- long answer "I have used Excel to create a spreadsheet containing a list of products and their information. I have used many formulas for subtraction, multiplication, ranges and IF formulas. I also used Excel to create a bar graph showing total profit and a pie chart showing each products total sales. I took many screenshots of Excel for my booklet."
Participant 2 Plenary Answer & Rating 1-10	Shorter answer, written out fairly quickly "I have used Excel to calculate formulas, I have also used it to make bar, pie and line graphs"
Participant 3 Plenary Answer & Rating 1-10	Written answer- rubbed out before seen by teacher/observer Did not re-write- "It's nearly time for the bell anyway"

Appendix 4. Interview Questions

1. What has been the highlight of your day so far?
2. Did you have a favourite part about the lesson? (Yes or No) - If Yes, what was it? (What was your favourite part of the lesson?)
3. Do you remember what the Starter Activity was? (Yes or No) (Take back Question Here.. "Think back to when we...")
4. Do you remember what the Plenary Activity was? (Yes or No) If yes, what were the activities?
5. Did you enjoy the Starter Activity (Scale 1-5)
6. Did you enjoy the Plenary Activity? (Scale 1-5)
7. Do you feel that your answers used more sophisticated vocabulary with or without the mini-whiteboards
(Read through what they wrote or said) (Did the whiteboard help you use more sophisticated vocabulary)
8. Would you say you prefer answering the starter and plenary activity with or without the whiteboards (Scale 1-5)
9. Did you look at what others had written down and then write your answer? Or did you do it on your own? (How confident did you feel in writing your own answer)
10. Do you feel as if you'd want to participate more in the activities with or without a whiteboards? (Useful or not in the learning)
11. Were you more nervous about being selected for questioning in the starter and plenary when you did not have the whiteboard or with the whiteboard?
12. Do you feel the whiteboards gave you more or less confidence to give an answer?

13. If you were teaching the class, would you personally use or not use mini-whiteboards - why?
14. What could be done to the starter and plenary activities, to improve them for future classes, did you feel engaged in the activities? ("What could we do to improve the lesson for you?")
15. Do you feel the Whiteboards provided you with the capability to provide more sophisticated answers?

Appendix 5. Reflection Model

Date of Reflection:	Research Title:
<u>Describe</u>	
How was the Lesson Study conducted?	
What was the classroom's overall participation levels during the activities?	
<u>Feelings and Emotions</u>	
Did the classroom feel safe during the activities and were there any abnormal situations?	
Did the participants seem comfortable when answering the questions with and without the whiteboards when randomly chosen?	
<u>Positives and Negatives</u>	
Did the white boards have an overall positive effect on vocabulary used in the activities?	

Did you feel the observation method was appropriate to what was needed to be recorded?	
Was the difference in age groups appropriate?	
Did you achieve what you needed from your posed interview questions?	
<u>Research Linkage</u>	
Does related literature correlate with your findings?	
What does previous literature state different to your findings?	
<u>Conclusion</u>	
What is the overall conclusion from your findings, was your research question answered?	
<u>The Future</u>	
What would you change about the way you conducted the research if you were to do it again?	

Appendix 6. Reflection Sheet for Research Lesson #1

Date of Reflection: 06/02/2020	Research Title: Research title: How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini whiteboards in secondary education?
<u>Describe</u>	
How was the Lesson Study conducted?	Classroom with 31 participants Mixed ability Interview followed straight after Year 7s
What was the classroom's overall participation levels during the activities?	All in starter- varying completion All in main tasks All in plenary- varying completion
<u>Feelings and Emotions</u>	
Did the classroom feel safe during the activities and were there any abnormal situations?	Felt safe Comfortable learning environment No abnormal situation
Did the participants seem comfortable when answering the questions with and without the whiteboards when randomly chosen?	Comfortable with and without Some quicker to answer than usual with whiteboard, as they had something prepared Still some laughter More hesitance with random Q+A
<u>Positives and Negatives</u>	
Did the white boards have an overall positive effect on vocabulary used in the activities?	Overall positive effect in used activities Quicker engagement for majority of pupils All clearly thinking about the task as all had written something down
	Yes- sheet worked All data recorded as required Successful storage of data

Did you feel the observation method was appropriate to what was needed to be recorded?	
Was the difference in age groups appropriate?	Yes- only one year age gap
Did you achieve what you needed from your posed interview questions?	Yes- 3 participants provided insight to their experience
<u>Research Linkage</u>	
Does related literature correlate with your findings?	Yes- it has demonstrated that pupils enjoy forming an answer on the whiteboard before being called on to answer (Hirschmann 2015; Mountfield and Price, 2004)
What does previous literature state different to your findings?	No
<u>Conclusion</u>	
What is the overall conclusion from your findings, was your research question answered?	That whiteboards have had a positive effect on pupils, engaging them further in the starter activity, and they used more sophisticated for the most part on the whiteboards.
<u>The Future</u>	
What would you change about the way you conducted the research if you were to do it again?	Better pens/rubbers for the whiteboards Quicker to be put away so there was no distraction Explore other ways of using the whiteboards.

Date of Reflection: 06/02/2020	Research Title: Research title: How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini whiteboards in secondary education?
<u>Describe</u>	
How was the Lesson Study conducted?	Classroom with 26 pupils of mixed abilities – Year 8 lesson 2 on 6 th Feb at 9:50am – Interviewed 30 minutes after the lesson
What was the classroom's overall participation levels during the activities?	All completed starter activity but with varying completion levels All participated in plenary activity with a greater engagement vs the starter activity
<u>Feelings and Emotions</u>	
Did the classroom feel safe during the activities and were there any abnormal situations?	Felt safe, no abnormal situations
Did the participants seem comfortable when answering the questions with and without the whiteboards when randomly chosen?	Comfortable writing answers, however did not get students to read their answers but varying participation levels
<u>Positives and Negatives</u>	
Did the white boards have an overall positive effect on vocabulary used in the activities?	From the recording transcripts, pupils said that they were most interested in the gamification of the activities rather than seeing an increase in their vocabulary usage on the whiteboards
Did you feel the observation method was appropriate to what was needed to be recorded?	All data was successfully recorded during the lesson study however measuring the pupil's answers on a 1-10 scale was not feasible as there was no baseline of what a good answer is.
Was the difference in age groups appropriate?	Yes, both lesson studies only had a 1 year school gap between them
Did you achieve what you needed from your posed interview questions?	Yes, the case pupils were great in providing different opinions and preferences
<u>Research Linkage</u>	
Does related literature correlate with your findings?	Yes as engagement levels were high but measuring the academic sophisticated vocabulary increase is difficult from the given timeframe & would be more beneficial from having a larger data set on the pupils
What does previous literature state different to your findings?	Greater amount of writing was done on the mini whiteboards vs computers -> only for some participants
<u>Conclusion</u>	

What is the overall conclusion from your findings, was your research question answered?	Improve the levels of vocabulary usage through using several methods, some allowing quick answers to be produced & others allowing archive able documents to log formative assessment results which lead to informing future decisions based on pupil monitoring
<u>The Future</u>	
What would you change about the way you conducted the research if you were to do it again?	More resources & structure to implementation / blending of starter and plenary activities

Appendix 8. Parents Information Letter and Consent Form

CONSENT FORM

PROJECT TITLE: How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini-whiteboard in secondary education

Name of Researchers: Mr C Addison (ICT) & Miss A Davies (Humanities)

Please initial box

☐

1. I confirm that I have read and understand the information sheet dated 03/02/2020 for the above study.

☐

2. I understand that my child's participation is voluntary and that I am free to withdraw my child from the study at any time, without giving any reason.

3. I understand that my child can choose to withdraw at any time, without giving a reason.

☐

4. I understand that the information given by my child will be used in a university assignment.

☐

5. I understand that my child's name will not appear at any time.

☐

6. I agree for my child to take part in the above study.

Child's name

Parent signature

Date

**When completed, please return in the envelope provided to
Mr C Addison, Miss A Davies or the Staff Room by the 03/02/2020.**

Thank you.

INFORMATION SHEET

PROJECT TITLE: How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini-whiteboard in secondary education

Dear Parent / Guardian,

Our names are Mr C Addison and Miss A Davies, we are studying for a PGCE qualification at Yr Athrofa, University of Wales Trinity Saint David. We are currently student teachers within Pontarddulais Comprehensive School and are teaching in your child's class.

We would like to invite your child to participate in our research project. The title of the project is:

"How can we improve the levels of sophisticated vocabulary used in answers to starter and plenary questions through the use of mini-whiteboard in secondary education"

and we are aiming:

"To investigate if there's an increase in sophisticated vocabulary used when alternative methods of answering are provided, such as mini-whiteboards, allowing a whole class participation method".

Through your child's participation, we hope to ascertain:

"that by providing an alternative to the traditional hands-up question and answering method, we can increase whole-class participation along with being able to identify an increase in vocabulary used with mini-whiteboards as opposed to usually only having a few participants per question".

During the research project, we will be observing the classroom participants during the starter and plenary activity, using both a mixture of mini-whiteboards and hands-up questioning to examine participation levels and the quality of answer. The starter and plenary activities will have photos taken of the pupils answers to access the vocabulary used in answer to then identify any differences with or without the use of the mini-whiteboards.

Continuing from this, we will be selecting 3 participants from the research project to conduct a short audio recorded group interview where we will ask them a set of questions relating to the starter and plenary activities, which your child may not answer or withdraw from the research project at any time they wish.

The interview is likely to be done during the time of a lesson so your child will have to be temporarily removed from that lesson, possibly causing inconveniences to their studies.

TLDR: Audio recording starter and plenary activity, if you've signed the consent form your child may be chosen to participate in a group interview relating to the activities, where they may withdraw at any time with no questions asked.

All names will be kept strictly confidential and will only be known by ourselves. Your child's participation in this study is completely voluntary so you or your child can withdraw from the study at any stage. Your child will also be asked to give their assent before the beginning of the study.

After careful and precise analysis of the data obtained from the lesson observation and group interview, we would be happy to provide you with a copy of the findings at your request. The results of the research will be discussed in a university assignment that will contribute to our PGCE course. The results of this study will be stored on the University's secure Cloud Storage and all raw data will be destroyed once the assessment has been marked.

We thank you in advance for your time. If any questions do arise, feel free to contact us at your convenience through the School.

Phone Number: **[deleted for anonymity]**

Email: **[deleted for anonymity]**

Yours sincerely,

Mr C Addison & Miss A Davies

Appendix 9. Lesson Plan for Research Lesson #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)	Have starter on the board ready for when pupils come in Starter- Recapping the journey along the Slave Trade Triangle	Starter- Pupils will write on their whiteboards a description of what the journey from Africa to America would be like 10 minutes	No health and safety requirements PowerPoint Whiteboards- Pens- Rubbers
Teaching & Core Learning	Activity #1- Sources on the journey to the Americas from Africa	Activity #1- Pupils will, as a class, complete the sheet on the sources about the journey along	

	Activity #2- Inference Grid Activity #3- Sources and Interpretations Provide DATA help sheets- explanation 5 minutes Circulate room to provide help Link back to Edward and Llewellyn- revisiting that	the Atlantic Slave Trade Triangle 10 minutes Activity #2- Pupils will complete an inference grid on what is happening in the photo <u>Differentiation/Extension</u> <u>Pupils should concentrate on the ‘what can you see’ and ‘questions I have’ boxes if they find the inferences too hard</u> 5 minutes, 5 minutes discussion Activity #3- Pupils will look at two sources on life on plantations, and annotate why they think the sources have different interpretations on life on plantations for slaves 15 minutes Class discussion 5 minutes <u>Extension:</u> Why might a slave’s first hand account have a different opinion on life on slave plantations?	Inference grid- slave auction photo Two sources- use painting from IWB for one
Plenary	Plenary- Visualising Provide examples of pictures	Plenary- Pupils will summarise what they think life was like on plantations in 3 sentences, 2 key words, and 1 picture- they must do it in this order 10 minutes	

Appendix 10. Lesson Plan for Research Lesson #2

Time	Activities/Methodology/Key Concepts	Pupil Tasks	Resources
	(Teacher’s Role – including key teaching points,	(Pupils’ role – including differentiation, engagement in	(Including Health and Safety requirement)

	differentiation strategies and key questions)	formative assessment and homework)	
Opening phase (with links to prior learning)	Come up with 3 sentences of what you can use Excel for Come up with 2 keywords relating to Excel / Spreadsheets	Complete tasks in order as shown on left	Word Document
Teaching & Core Learning	<u>Activity 1 - 20 Mins:</u> How to create graphs in Excel demonstration 10 mins for each graphs and screenshotting + notes <u>Activity 2 - 15 Mins:</u> Creating a Poster in DrawPlus -> Make a list as a class of features a good poster has, make a new page in booklet under page 13 and paste the poster in here when done	Create Bar and Pie Graphs / Charts Create Poster advertising store based on key points from class discussion MaaT:	
	Write down an explanation of what	Use mini whiteboards to	Whiteboards from AG

Plenary	you have used Excel for with your ice- cream parlours "I have used Excel to..."	write down an answer / explanation	
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