

Appendices

Appendix 1

Observation Schedule: Can traffic light cups be used in Years 2 and 3 for pupils to self-assess their understanding of the task?

Student number of observer:	1100271		
Date and time of observation:	03.02.2020 – 11.10am		
Year group being observed:	2		
	Child X	Child Y	Child Z
Child description	Long black hair, pink bow	Long brown hair	Short brown hair
What order did the child engage with the traffic light cups? Include approximate time spent on each colour.	Green 11.30 Red 11.37 Orange 11.40 Green 11.46 Orange 11.50 Green 12.03	Green 11.30	Green 11.30 Orange 11.31 Green 11.35 Red 11.46 Green 11.47 Red 11.50 Balancing cups 11.57 Red 11.59
Does the work the pupils produce reflect their self assessment?	On green for the whole of the main task – successfully completed the task. Extension task – changing the cups when needs help.	On green for whole of main task and extension task, completes work successfully.	In beginning, changes to orange but saw use of hundred square by other pupils, when utilised this changes to green without teacher input. Was on green when on track, changes to red when support is needed.
General observations	When on red, waits without interrupting teacher. While on orange continues to do work but while on red waits without working.	Did not engage with cups at all as was fully comfortable with the task.	In beginning of lesson, stacking cups before teacher approaches table. Stops working when changes to red.

Appendix 2

Interview questions – 03.02.2020

NB - Cups on the table

- 1) What did you learn during the lesson today?

Pupil X – We could do clear numbers

Pupil Y – We learnt that we could do the numbers in the boxes

Pupil Z – Maths

- 2) Think back over the lesson: Did you use the cups today? – yes or no
If yes, how did you feel about using them?
If no, why didn't you want to use the cups?

Pupil X – Yes, I felt weird (why?) because they were new

Pupil Y – Yes, good

Pupil Z – Yes, good they felt new

- 3) Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no
If yes, how did the cups help you?
If no, what do you think would have helped you instead?

Pupil X – Yeah, saves time for teachers without children calling them

Pupil Y – Yes, because if we changed green to orange Miss will come

Pupil Z – Yeah, because you can change the colour and Miss will know what you want

- 4) Do you think that using the cups is a good or bad idea? Why?

Pupil X – Good, I don't know

Pupil Y – Good, because Miss knows when you need help

Pupil Z – Good because you've got the right colours, if you had pink, purple or yellow they would be the wrong colours

- 5) Directed towards each child individually – What do you think about the cups being used in future lessons?

Pupil X – I think I would be ok with them

Pupil Y - Good

Pupil Z – It would be fine

Appendix 3

Critical reflection 03.02.2020 – adapted from Brookfields (1998, 2005)

Lens	Questions to be considered
Critically Reflective Lens 1: Our Autobiography as a Learner of Practice	<i>How did I feel the lesson went?</i> <i>What were my feelings during the lesson? Positive or negative feelings towards the implementation of the Traffic Light Cups?</i> <i>Did I feel the Traffic Light Cups helped the children to stay on task by them self assessing their understanding of the activity?</i> <i>Would I implement the Traffic Light Cups based on my experience with them in the lesson today?</i> Busy lesson – new topic. New topic and new AfL technique may have been a lot of information in one go at the beginning of the lesson. Positive attitude towards cups, pupils did not start getting up out of chairs until after the extension task was given. I think that traffic light cups did help pupils self assess during the task. Usually confident pupils could use the cups to demonstrate they were struggling with the new topic. In regards to implementing in future lessons, yes but maybe not all the time due to distraction at times.
Critically Reflective Lens 2: Our Learners' Eyes	<i>Taken from pupil voice interview questions: What did you learn during the lesson today?</i> <i>Think back over the lesson: Did you use the cups today? – yes or no. If yes, how did you feel about using them? If no, why didn't you want to use the cups?</i> <i>Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no. If yes, how did the cups help you? If no, what do you think would have helped you instead?</i>

	<i>Do you think that using the cups is a good or bad idea? Why?</i> <i>What do you think about the cups being used in future lessons?</i> 1) What did you learn during the lesson today? Pupil X – We could do clear numbers Pupil Y – We learnt that we could do the numbers in the boxes Pupil Z – Maths 2) Think back over the lesson: Did you use the cups today? – yes or no If yes, how did you feel about using them? If no, why didn't you want to use the cups? Pupil X – Yes, I felt weird (why?) because they were new Pupil Y – Yes, good Pupil Z – Yes, good they felt new 3) Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no If yes, how did the cups help you? If no, what do you think would have helped you instead? Pupil X – Yeah, saves time for teachers without children calling them Pupil Y – Yes, because if we changed green to orange Miss will come Pupil Z – Yeah, because you can change the colour and Miss will know what you want 4) Do you think that using the cups is a good or bad idea? Why? Pupil X – Good, I don't know Pupil Y – Good, because Miss knows when you need help Pupil Z – Good because you've got the right colours, if you had pink, purple or yellow they would be the wrong colours
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	5) Directed towards each child individually – What do you think about the cups being used in future lessons? Pupil X – I think I would be ok with them Pupil Y - Good Pupil Z – It would be fine
Critically Reflective Lens 3: Our Colleagues' Experiences	<i>From the observation, generally how did you think the lesson went today?</i> <i>In your opinion, did the implementation of the Traffic Light Cups benefit the lesson today? Do you think the pupils used the Cups correctly?</i> <i>Did the use of Traffic Light Cups seem to help the pupils to effectively self assess?</i> <i>Could you make any recommendations for how to improve the lesson and the implementation of the traffic light cups?</i> The three focus learners engaged effectively with the traffic light cups. The learners work reflected their use of the traffic light cups as they moved from green, orange and red to self assess themselves. The use of the traffic light cups benefitted the lesson as it gave the teacher a visual representation of who needed help. As the pupils used the cups correctly, I think that it would be a good AfL strategy to implement. However other learners might find the cups a distraction as child Z did play with the cups at times.

Critically Reflective Lens 4: Theoretical Literature	<i>What have previous researchers found on the implementation of AfL techniques?</i> <i>What have previous researchers found on the use of traffic lighting and Traffic Light Cups?</i> <u>AfL</u> 'The Classroom Experiment' documentary – found a benefit to using the traffic light cups in KS3, interesting to see how it would translate to Foundation Phase and KS2 Black and William (1998) – benefits of formative assessment, largest achievement gains associated with an educational intervention William (2018) – instructional use of traffic lights and red and green disks as best practices, again aimed at secondary education Glazzard et al (2010) – AfL can be successful in early years practice <u>Lesson Study Implementation</u> Brookfield (1998, 2005) – benefits of critical analysis, looking through 4 lenses can assist in this as used in this table Dudley (2015) – benefits of undertaking lesson study as viable method of classroom research
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Appendix 4**Observation Schedule: Can traffic light cups be used in Years 2 and 3 for pupils to self-assess their understanding of the task?**

Student number of observer:	1903049
Date and time of observation:	04.02.2020 – 9.10am
Year group being observed:	3

	Child T	Child U	Child V
Child description	Fair, blonde, pink scrunchie	Blonde, small green bow	Blonde, short hair
What order did the child engage with the traffic light cups? Include approximate time spent on each colour. All 3 pupils – time spent on red usually waiting for teacher	Green 9.30 Orange 9.42 Green 9.43 Orange 9.45 Red 9.50 Green 9.54 Red 9.55 Green 9.56	Green 9.30 Red 9.50 Green 9.55	Green 9.30 Red 9.51 Green 9.56
Does the work the pupils produce reflect their self assessment?	Yes – while on green Pupil x was finding the task easy	On green but has struggled with a few q's – has support from pupil x	Work is correct on chosen differentiation level, when asked to try higher level, is playing with the cups
General observations Both pupils x & y change to red at the same time x is not able to help y	Changes cups to orange but realised knew what to do and went back onto green Changes to orange for a minor issue with drawing the pound sign	Playing with cups during group explanation	Becomes very distracted by the cups at 9.38 Stays on green even though completes work in wrong method after teacher gives feedback Still distracted and playing with cups at 9.45

Appendix 5

Interview questions – 04.02.2020

NB - Cups on the table

- 1) What did you learn during the lesson today?

Pupil T – Taking away set out this way

Pupil U – Taking away money

Pupil V – Need to do that *points to work*

- 2) Think back over the lesson: Did you use the cups today? – yes or no
If yes, how did you feel about using them?
If no, why didn't you want to use the cups?

Pupil T – Yes, good

Pupil U – No I didn't, didn't need to. Actually I did use them.

Pupil V – One time, happy

- 3) Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no
If yes, how did the cups help you?
If no, what do you think would have helped you instead?

Pupil T – Yes a lot, wait for teacher to come

Pupil U – Yes, felt great

Pupil V – Yes, wait for teacher to come

- 4) Do you think that using the cups is a good or bad idea? Why?

Pupil T – Yes, instead of saying Miss easily get help

Pupil U – Yes if on green you're ok, red need help, orange need a bit

Pupil V – Yes, don't know

- 5) Directed towards each child individually – What do you think about the cups being used in future lessons?

Pupil T - Yes

Pupil U – Yes – I liked using them they are like traffic lights

Pupil V – Yes

Appendix 6

Critical reflection 04.02.2020 – adapted from Brookfields (1998, 2005)

Lens	Questions to be considered
Critically Reflective Lens 1: Our Autobiography as a Learner of Practice	<i>How did I feel the lesson went?</i> <i>What were my feelings during the lesson? Positive or negative feelings towards the implementation of the Traffic Light Cups?</i> <i>Did I feel the Traffic Light Cups helped the children to stay on task by them self assessing their understanding of the activity?</i> <i>Would I implement the Traffic Light Cups based on my experience with them in the lesson today?</i> The lesson went well as the learners did progress in their understanding of column addition. The traffic light cups did get used by learners properly, however some learners were still verbally calling for teacher support. The focus learners used the red cup correctly to indicate when help was needed. Based on this experience, I would implement the use of the traffic light cups as it did make the learners more independent in their self assessment. However, I feel like practice would be beneficial to effective use of the traffic light cups.
Critically Reflective Lens 2: Our Learners' Eyes	<i>Taken from pupil voice interview questions:</i> <i>What did you learn during the lesson today?</i> <i>Think back over the lesson: Did you use the cups today? – yes or no. If yes, how did you feel about using them? If no, why didn't you want to use the cups?</i> <i>Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no. If yes, how did the cups help you? If no, what do you think would have helped you instead?</i> <i>Do you think that using the cups is a good or bad idea? Why?</i> <i>What do you think about the cups being used in future lessons?</i>

	1) What did you learn during the lesson today? Pupil X – Taking away set out this way Pupil Y – Taking away money Pupil Z – Need to do that *points to work* 2) Think back over the lesson: Did you use the cups today? – yes or no If yes, how did you feel about using them? If no, why didn't you want to use the cups? Pupil X – Yes, good Pupil Y – No I didn't, didn't need to. Actually I did use them. Pupil Z – One time, happy 3) Think back over the lesson: Did you feel that the cups helped you in the lesson? – yes or no If yes, how did the cups help you? If no, what do you think would have helped you instead? Pupil X – Yes a lot, wait for teacher to come Pupil Y – Yes, felt great Pupil Z – Yes, wait for teacher to come 4) Do you think that using the cups is a good or bad idea? Why? Pupil X – Yes, instead of saying Miss easily get help Pupil Y – Yes if on green you're ok, red need help, orange need a bit Pupil Z – Yes, don't know 5) Directed towards each child individually – What do you think about the cups being used in future lessons? Pupil X - Yes Pupil Y – Yes – I liked using them they are like traffic lights Pupil Z – Yes
Critically Reflective Lens 3: Our Colleagues' Experiences	<i>From the observation, generally how did you think the lesson went today?</i> <i>In your opinion, did the implementation of the Traffic Light Cups benefit the lesson today? Do you think the pupils used the Cups correctly?</i>

	<i>Did the use of Traffic Light Cups seem to help the pupils to effectively self assess?</i> <i>Could you make any recommendations for how to improve the lesson and the implementation of the traffic light cups?</i> Lesson went well. Pupils engaged throughout. Traffic light cups helped most pupils self assess well. Pupil Y seemed as though the traffic light cups were not assisting with their self assessment as they were on green but another pupil was assisting. Cups also became a distraction, particularly when the pupils were inbetween tasks or waiting on red/orange for teacher attention. Recommendations could include not using the cups on red when completed the work. Red should be used when they are struggling so maybe an alternative could be found for this.
Critically Reflective Lens 4: Theoretical Literature	<i>What have previous researchers found on the implementation of AfL techniques?</i> <i>What have previous researchers found on the use of traffic lighting and Traffic Light Cups?</i> • Donaldson (2015) argues that AFL is integral to good teaching and learning as it allows teachers to adapt to meet the needs of their learners. • Gardner (2012) states that learners must self-assess themselves and to achieve this they must be actively engaged in the process. This contrasts with Child Z playing the with cups. • In <i>The Classroom Experiment</i> there were also moments where the learners appeared to get distracted by traffic light cups and played with them. However, the use of the Traffic Light Cups

	in the documentary seems to be an effective way for learners to self-assess when they need help and use them as a tool to signal this to the teacher.
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Appendix 7**CONSENT FORM (PARENTS)**

PROJECT TITLE: Can traffic light cups be used in years 2 and 3 for pupils to self-assess their understanding of the task?

Name of Researcher:

Sarah Bottcher and Emmeline Morgan

Please initial box

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

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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.

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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 Miss Bottcher by the of (date)

Thank you.

INFORMATION SHEET

PROJECT TITLE: Can traffic light cups be used in years 2 and 3 for pupils to self-assess their understanding of the task?

Dear Parent / Guardian,

My name is Sarah Bottcher and I am studying for a PGCE qualification at Yr Athrofa, University of Wales Trinity Saint David. I am currently a student teacher within Crynallt Primary School and am teaching in your child's class.

I would like to invite your child to participate in my research project. The title of the project is "Can traffic light cups be used in years 2 and 3 for pupils to self-assess their understanding of the task?" and I aim to how the Assessment for Learning strategy of using Traffic Light Cups is used to help learners self-assess their understanding of a task in Years 2 and 3. Through your child's participation, I hope to ascertain whether pupils can complete tasks with confidence and let a teacher know if they need assistance effectively using the traffic light cups.

With another PGCE student as a research partner, I will conduct a lesson study methodology as it allows teachers to work collaboratively to improve teaching and learning strategies and techniques. The first part of this research will be an observation of the pupils using the traffic light cups in the setting of a normal lesson. Immediately after the observation, the pupils will be asked whether they consent to being interviewed. I will then use a semi-structured interview technique, where a number of predetermined questions will be posed to the pupils and I can also pose additional questions if required. I may audio record the semi-structured interview, if this is the case I will ensure any names will be redacted from the transcript and I will keep the original recording under password protection and ensure no one but myself and my research partner can access this. Finally, my research partner and I will reflect upon our findings directly after the interview.

All names will be kept strictly confidential and will only be known by myself and my research partner. 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, I 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 my PGCE course. The results of this study will be stored on UWTSD OneDrive and all raw data will be destroyed once the assessment has been marked.

I thank you in advance for your time. If any questions do arise, feel free to contact me at your convenience.

Yours sincerely,

Sarah Bottcher