

Overview

08 December 2019

15:49

Assignment Title: **Prepare a portfolio (as though you were sharing with a mentor or student colleagues) which illustrates a critical reflection of progress made on the planning and implementation of three pedagogical principles._**

Name: **Hannah James**

Student number: **1901604**

Pathway: **Primary PGCE with QTS**

Link to assignment:

https://uowtsd-my.sharepoint.com/:o:/g/personal/1901604_student_uowtsd_ac_uk/EvDktvRSPFFOI3ECONKQBsoB09VGO07jU70rv2y-e6AzLQ?e=Zxb19U

	Targed/Target	Yr hyn yr wyf wedi'i wneud yn yr aseiniad hwn What I have done in this assignment...
Targed/ Target 1	Keep to the assignment brief so that your work is logically structured and appropriate	Read the assignment specification closely and sought advice on structure.
Targed/ Target 2	Revise possessive apostrophe use.	Researched possessive apostrophe use and tried to use it accordingly.
Targed/ Target 3	Widen your reading to include more academic books.	Tried to use a wider variety of sources, particularly academic books.

NB: This page is not included in word count

Good teaching and learning means employing assessment for learning principles.

08 December 2019 16:16

Illustrative Example 1

Week 1: R.E Lesson (Hanukkah)

Thinking time and Basketball not ping pong

Created own success criteria

This is primarily an R.E lesson introducing Hanukkah to the learners in Reception Autumn term. The lesson incorporated links to the LNF, DCF and curriculum Cymraeg. This was a diverse lesson that incorporated a lot of different teaching styles including whole class teaching and group work. The diverse nature of the lesson allowed me to trial using a number of assessment for learning strategies that I had either observed in the school or learnt about through researching AFL as part of modules ECAD 6007 and ECAD 6008.

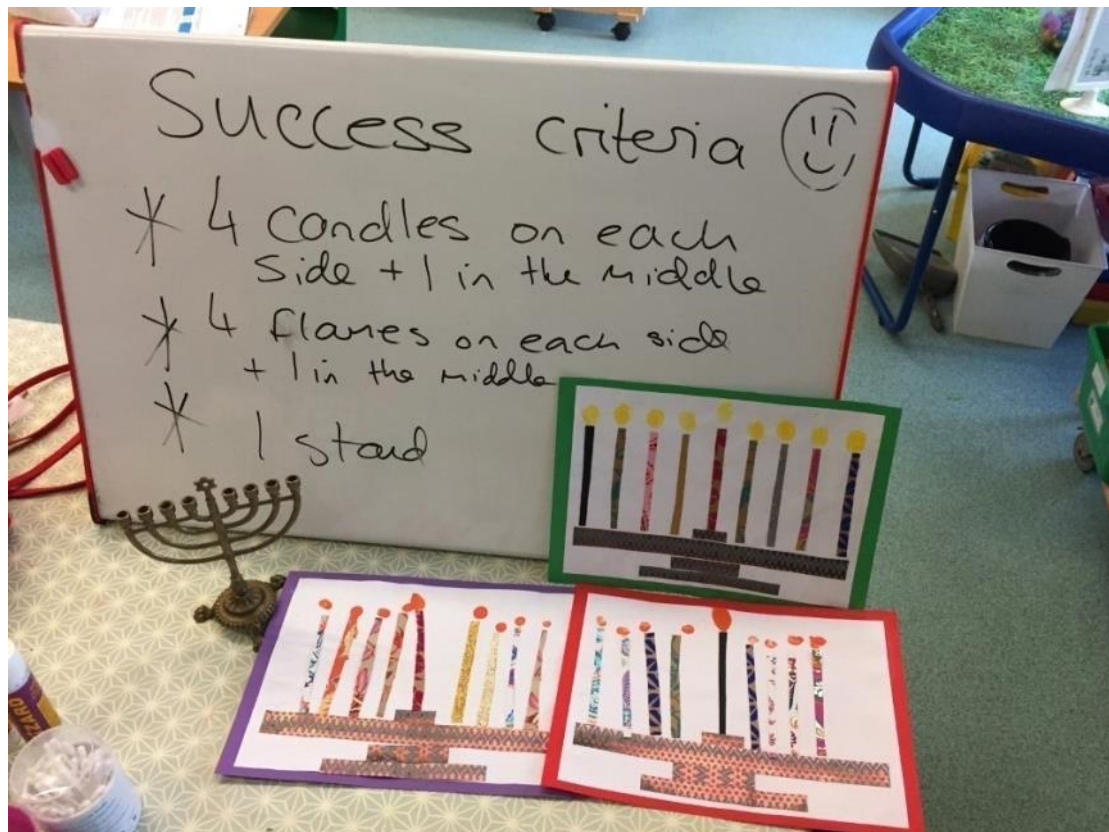
Time	Activities/Methodology/Key Concepts (Teacher's Role—including key teaching points, differentiation strategies and key questions)	Pupil Tasks (Pupils' role—including differentiation, engagement in formative assessment and homework)	Resources (Including Health and Safety requirement)
Opening phase (with links to prior learning)	Whole class teaching Teacher uses Rabbi puppet and Menorah to introduce topic and engage interest. THINK PAIR SHARE "Have you seen this before?" "What could it be used for?" "While you watch the video look out for these objects and what they might be used for?" Watch: http://5.150.66.101/espresso/primary_uk/subject/module/video/item1100397/grade6/module1099401/index.html THINK PAIR SHARE "Talk in your partners about what you remember from the video. Did you see the objects we'd discussed? What interested you and why?" Use leading questions to unpack what the objects are and how they are used as part of the Hannukkah celebration. Play:	Learners talk in pairs to make educated guesses about what the Dreidel spinner and Menorah candles could be. Whole class feedback Watch the videos Learners talk in pairs about what they can remember from the video and what they found interesting. Whole class feedback about the two objects and the video.	I.T device to play video and game Rabbi puppet Menorah

During the opening phase I was able to use THINK, PAIR, SHARE. This is an AFL strategy I had seen during previous work experience as a teaching assistant before the PGCE. Therefore, I thoroughly enjoyed researching the evidence behind this technique and how it works as an assessment for learning strategy. I used the WAG (2010) guidance document to further inform myself on AFL.

My class mentor reflected that "children responded well to the talking partner activity during the carpet session and some good suggestions were made about the props shown". As the learners have not used THINK, PAIR, SHARE often, I was impressed by their productive response to it. I would like to implement it in the next part of my placement in year five so that I can reflect on its different uses across foundation phase and KS2. The learners seemed to enjoy the opportunity to discuss their ideas with their peers and it did generate productive whole class feedback.

During the main task the learners engaged in assessment for learning through creating their own success criteria based on an example. This was a really rich learning experience for the learners as they really engaged with the task and could take real ownership of their learning. Throughout production I could refer back to the success criteria so learners could reflect on how to proceed or make changes. It was of interest that each of the groups learning criteria differed slightly, but helped them all to successfully create a Menorah.

Teaching & Core Learning	In groups. One at a time with Petryl, Sqwar, Triongl and Cylch. Talk to students about the significance of the Menorah and model how to make their own. Show the learners a pre-made example or a peer from a previous groups work. What will be need to do to make a Menorah? Write these on a whiteboard and explain that these are the success criteria for the task. Co-creating success criteria with learners. Ask questions: LA: What are you making? Who uses it? When is it used? Most: What have you made here? Who uses the Menorah and when? Why have you used candles? Refer to success criterion as learners work to encourage them to reflect on their own work. AFL: T to use increased thinking time (p56) https://www.gwoglegedd.cymru/wp-content/uploads/2018/04/How_to_develop_thinking_and.pdf	Collage Menorah http://bagelsandcrawfish.blogspot.com/2010/12/hanukkah-greetings.html  Learners look at an example to think about possible success criteria. The group of learners choose three success criteria that I will scribe onto a whiteboard. Create Menorah using patterned paper. MAT: Cut their own paper and stick down independently. Most: Try to cut and stick independently, but can use pre-cut paper where necessary. LA: There will be a Menorah template for them to stick onto. The paper will be	Paint Paper Scissors Glue Modelled Menorah sheet for those that need it. Eg Cylch and R.
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During the plenary I was able to use questioning effectively to help the learners reflect on what they had learnt about Hanukkah so far and make connections between the video, craft activity and story they had engaged in during the lesson. My class teacher reflected that "the plenary for R.E allowed children the time to reflect on what they had learnt about Hanukkah and that open ended questions were used to good effect to assess children's understanding.

I based my questioning strategy on Basketball, not ping pong that I was introduced through during University lectures and furthered my knowledge by using the WAG (2010) guidance. It allowed learners to build on their peers comments so we could almost mind map our learning as a class, rather than their being one right answer.

Limitations of co-constructing success criteria in this context is that the learners aren't yet able to read so they couldn't independently refer back to the criteria they had selected. Verbal reminders were effective as a teaching tool. However, to improve my understanding of this strategy for learners I will use it again on PTE1 part 2 where I am placed with year five. To counteract their inability to read confidently in reception we could have verbally recorded the success criteria so they could play it back to themselves at any point. If I taught this lesson in the same context again, I would try audio recording the success criteria.

Further illustrative examples shown below:

Plenary	Whole class teaching Read: <u>Sammy Spiders first Hanukkah</u>. Use Rabbi puppet to ask students to tell the puppet what they have learnt about Hanukkah. Potential prompt questions: "What did we learn about Hanukkah?" "Why is the Menorah important?"	Learners listen to story. Encouraged to reflect on story through questioning. Feedback answers to class	Class book
			Puppet

Plenary	Whole class teaching Read: Sammy Spider's first Hanukkah. Use Rabbi puppet to ask students to tell the puppet what they have learnt about Hanukkah. Potential prompt questions: "What did we learn about Hanukkah?" "Why is the Menorah important?" "What can you tell me about Hanukkah or a Menorah?" AFL: Basketball not ping pong for questioning https://www.gwegogledd.cymru/wp-content/uploads/2018/04/How_to_develop_thinking_and.pdf (p41) Display learners work where possible Could create a display if appropriate.	Learners listen to story. Encouraged to reflect on story through questioning. Feedback answers to class and peers help learners build their understanding of story through Basketball not ping pong questioning strategy.	Class book ✓ Puppet
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Scaffolds to support learning were used - use of Hanukkah clip and props were shown to engage learners. children responded well to the talking partner activity during the carpet session and some good suggestions were made about the props shown.

The L.O was shared with the children and the children were able to come up with their own S.C.

Differentiation was evident during the lesson - children choosing to cut sticks for the candles or sticking on

Could I respond to the question Beth
myt tin hoffi? with Duv in hoffi + colour
In LBM session Hannah motivated
especially the lower group who
found counting in 2's tricky to achieve.
The plenary for R.E allowed children to
reflect on what they had learnt about
Hanukkah. The Rabbi puppet and
the story reminded the learners about
the festival. Open ended questions were
used to good effect to assess children's
understanding.
→ Manage other adults within the
classroom setting.

Illustrative Example 2

Week 1: P.E Lesson (Ball skills)

Thinking time and Learning Pit stops

Predict results and reflect on predictions and results

This was the first lesson I taught on the PGCE so I was really eager to try out some new strategies that I had learnt at UWTSD. This was primarily a P.E lesson. However, there were cross curricular links to the LNF and curriculum Cymraeg. I taught this lesson to Reception in the autumn term and it was their first lesson working on ball skills. I taught the lesson twice, each time to half the class.

Teaching & Core Learning	Ask students to start rolling ball to each other with the aim to keep it in the garden. Monitor students/ giving praise/advice where necessary. AFL: T to use increased thinking time (p56) Learning Pit Stop: Stop learners, Questioning "Is the ball you have like we predicted?" Ask them to change ball and model using small under arm passes or bouncing for learners who have become confident in rolling to each other. Continue to monitor/advise/praise. Learning Pit Stop: Give students the option to make their garden bigger if they have become confident in their own. No need to make bigger, only for those who require the greater challenge. Continue to monitor/advise/praise. Pit stop: Learners can change balls one last time and increase to bouncing if they feel ready. Self-assessment and reflection. "Are there any differences between this ball and the last ball?" "Is it easier or harder to throw?"	Pairs of learners collect one ball, and two cones per learner. Create a garden. Sit down fairly close to each other and begin to roll the ball back and forth to each other. Learners must try and keep it in their garden. All learners will get a new ball, some learners will choose to using underarm passes rather than throwing. Self and peer assessment on level of challenge. All learners will get a new ball, most learners will try under arm passing. Self and peer reflection on level of challenge. MAT send and receive an object with improving control over greater distances. HA send and receive an object over greater distances. AA Send and receive an object gradually widening the distances. LA Send and receive an object.	A variety of balls cones
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I choose to use the 'garden' formation as this something a circus company had demonstrated to us and it really engaged the learners in keeping the ball in their area. I used learning pit stops as an opportunity to adopt AFL strategies. It gave me an excellent opportunity to use questioning to help learners develop their ideas and scaffold learning. For example, at the beginning of the lessons learners predicted which balls might be easier or harder to roll or bounce based on their surface, size and weight. When asking questions, I used increased thinking time, especially as the students were considering a new skill and coming into contact with such a variety of apparatus. Finally, the pit stops were an excellent opportunity for self and peer assessment.

A pair of learners could demonstrate their rolling and bouncing to their peers before describing how their ball impacted their experience. Furthermore, pairs were in charge of when or if it all they felt ready for the increased challenge of bouncing the ball. I particularly wanted to use questioning during the learning pits as learners were able to reflect on their initial predictions on how the ball would affect their experience.

Reflective Analysis of Teaching and Strategies for Development – including justification/rationale for pedagogical choices	
Evidence of my Effective Practice	WWW My personal targets in line with QTS standards were to: Manage the learning environment Challenge and Expectations Learners leading learning Manage the learning environment I thought I did this quite well by using four cones to create a garden for the pairs and encouraging them to use their bodies to create a diamond shape to control the area they could pass the ball within. Challenge and Expectations By providing three learning pits to offer levels of differentiation the students were able to access a range of challenges, building gradually. For example, they all had the opportunity to change the type of ball they used. Each ball was on a different texture or size which brought an element of challenge. Equally, if learners felt confident rolling, they could try using small controlled bounces to their partner. If comfortable they could then increase the size of their garden by moving the cones. The increase in challenge was not mandatory and those who just wanted to continue practice rolling different types of balls in their original garden size could do. As each pair had their own garden and was focussed on their task, peer pressure should have been limited. The self-levelling was reliant of self and peer assessment and reflection. Learners leading learning Learners were encouraged to reflect on their learning before, during and after the task through questioning. I tried to leave an appropriate amount of waiting time when asking a question to allow the learners thinking time. However, did prompt or build the answer by another learner where I thought appropriate.

On the whole, this lesson worked really well. The learners engaged with the apparatus and garden concept with enthusiasm. Working in pairs was also successful and learners were challenged to develop their communication skills.



If I taught the lesson again, I would like to improve it by the pairs creating a record of their predications of the ball against their actual experience. For example, I could use a traffic light system.

- Red for difficult to roll or bounce.
- Amber for ok to roll or bounce.
- Green for easy to roll or bounce.

Learners could make predictions and then compare them with their actual experience. This would be supported by the questioning already in use in the learning pit stops. Learners would also be able to compare their predictions and results with their peers for further peer and self-assessment.



Illustrative Example 3

Week 3: Outdoor Literacy (The Enormous Turnip)

Two stars and one wish on video take 1

This lesson was a language, literacy and communication lesson that also incorporated the LNF and DCF. We included numeracy through sequencing and digital competency by using an Ipad to record and watch their performances. The Enormous Turnip was the context for learning for a fortnight and all lessons taught were about this. This lesson was taught to Reception in the Autumn term. The focus was for them to retell the story of The Enormous Turnip with the use of props. This required the learners to recall the story and position themselves in the order to their character. It was differentiated through different variations of speaking parts, if at all, for characters in the video.

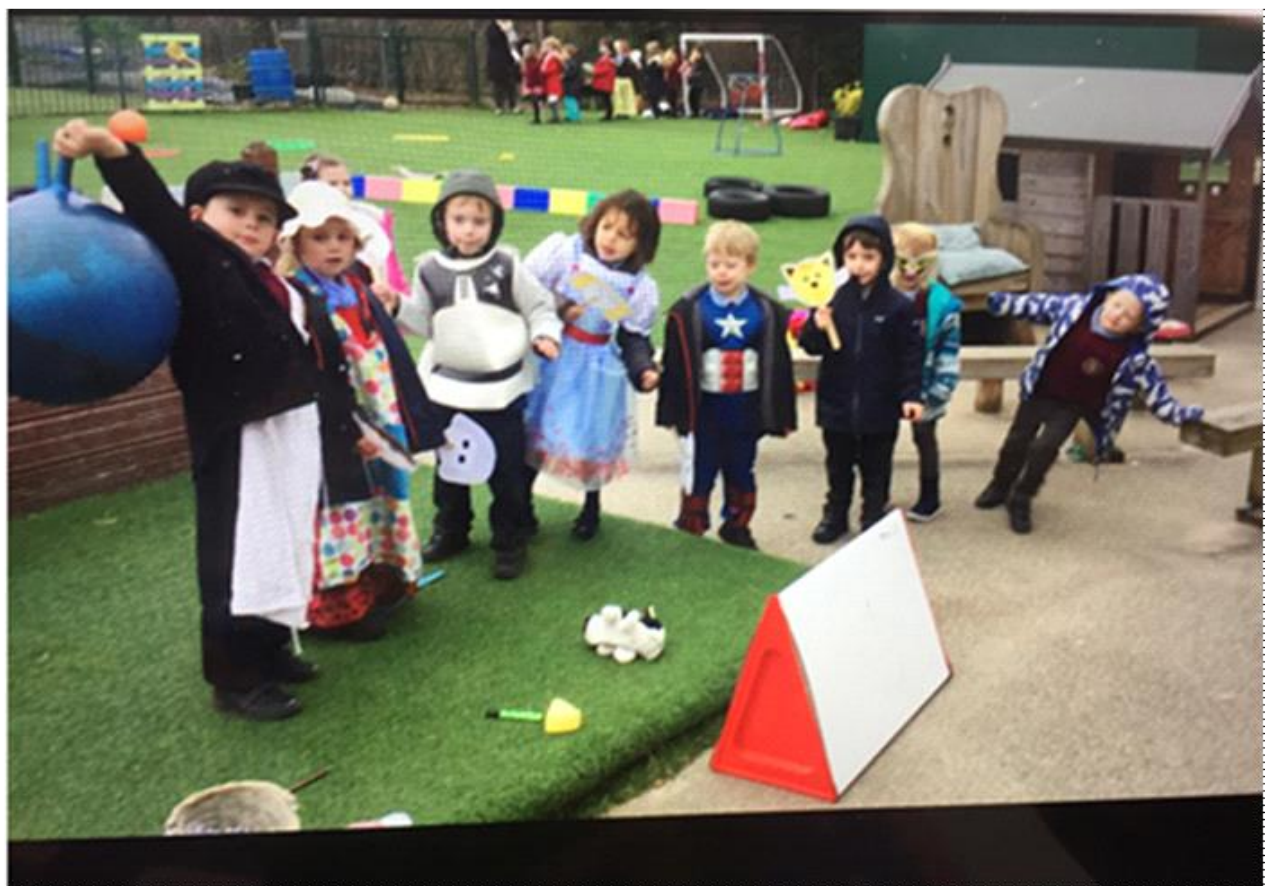
I chose to use two stars and a wish because I thought it was an assessment for learning that would really engage them in the task. As it was taught outside and had lots of props, the learning could have potentially been overridden by the excitement of the outdoor environment and use of props. However, using two stars and a wish when peer assessing their peers videos and self-assessing their own video made them really focus on the lesson objective. Initially, we watched a peers video and made suggestions for what went well and what could have been better. We then discussed how they could limit these mistakes in their own performance.

Plenary	In groups on the stage perform the story with each taking on a different role. Learners review their peers video to make 2 stars and a wish. Peer assessment. This informs their own performance. After take 1, they are allowed to watch their own performance to make 2 stars and a wish. Self-assessment. Take second take which they can rewatch to see if they had achieved their wishes and if there is any further room for improvement. Self-reflection. <u>Assessment for Learning</u> 1 star and a wish - What was good about their retelling? What would make it better?	Use the iPad to video the retelling Learners watch peers video and make verbal suggestions for two stars and a wish on peers video. Peer assessment. Record take 1. Learners watch their own video to make verbal suggestions for their own two stars and a wish. Record take 2. Learners watch take 2 to reflect whether they had implemented their wishes and if there was from for any further improvement. MAT - Correctly sequence the story and include vocabulary from the book in their retelling. Use ordering words. HA -Retell the story using ordering words. MA- Join in the main events of the story when a teacher is telling it LA - repeat main parts of the story e.g. pulled	I pads White board White board pen Props
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We then recorded take one of their own performance before re-watching and using two stars and a wish to make further suggestions for improvements in their second take. After the second take, we watched their final video and discussed whether they had been able to make those changes and what they might do if they recorded it again in future. I had learnt about two stars and a wish during lectures of ECAD6007 and explored it further in WAG guidance (2010).

Reflective Analysis of Teaching and Strategies for Development – including justification/rationale for pedagogical choices	
Evidence of my Effective Practice	WWW Differentiation <i>The student-teacher demonstrates knowledge, understanding and experience of high expectations and effective practice in meeting the needs of all learners, whatever their different needs.</i> I had built differentiation into the planning stage and was able to use this to good effect in the delivery. For example, P were able to sequence the story with little input and were able to order themselves accordingly, but C needed more prompting and scaffolding to get the sequencing correct and order themselves accordingly. I also did a little bit of narration for the lower level groups to frame the video whereas the higher groups were able to understand how to include a title and conclusion themselves. Listening to learners <i>The student-teacher demonstrates a willingness to seek, listen to and take account of the views of learners in order to engage and encourage them as active participants in their own learning.</i> By incorporating peer and self-assessment 'listening to learners' was an integral part of the lesson plan. They were really engaged in watching the previous groups video to inform their own performance which helped them in becoming active participants in their own learning. They also were allowed to suggest changes after watching the first take of their performance which really engaged them further. This activity was a great opportunity for them to take an active role as participants in their own learning as I tried to hang back and just record.

As I used it with a reception class we only made verbal suggestions. A limitation of this is they are likely to forget their suggestions for future work. However, when I use this strategy again in KS2 I will ask learners to record their two stars and a wish so that they can refer back to them when producing work in the future. This will not only allow them to use these targets to improve future work, but also give learners a better sense of their own develop as they reflect on how far their learning has gone in a term or academic year.



08 December 2019 16:17

Digital Competency

Recorded on an Ipad, reflected on previous groups video, and then on their own.

Student-teacher	Hannah James	Class	RZD
Age or Subject	Literacy	Date:	20.11.19
Lesson Focus:	Retell a story using props		
Meaningful links to Curriculum	FPS Retell narratives or information that they have heard, sequencing events correctly (Yr2) Retell narratives or information that they have heard (yr1) In simple terms, retell narratives or information that they have heard (Rec)		
Meaningful links to: Cross Curricular Responsibilities	LNF imitate real-life and make-believe experiences within role play contribute to role-play activities using relevant language adopt a role using appropriate language. DCF identify a success criterion in response to questions, e.g. success criteria may include ensuring the subject is in the middle of the image when taking a photograph work together with a partner/partners on a piece of digital work. Physical development exploring and investigating their indoor and outdoor learning environments solve simple problems with a partner, such as how to use, find, retrieve or carry objects, score points, etc. develop coordination, (e.g. 1D)		

exploring and investigating their indoor and outdoor learning environments
solve simple problems with a
partner, such as how to use, find, retrieve or carry objects, score points, etc.
develop coordination (p. 44)
<https://gov.wales/sites/default/files/publications/2018-02/foundation-phase-framework-revised-2015.pdf>

I chose to use digital competency in collaboration with AFL strategy two stars and wish (WAG, 2010, p86). On a practical level, I wanted to record their work as evidence to upload to Seesaw. However, I exploited the recording by explaining to the learners we would be using two takes. They were able to devise success criteria from watching a peer's video therefore understanding where on stage they should stand in order to get a shot or angle. Listening back to it also helped them to understand how loud they needed to speak in order to be audible on the recording device. I used the DCF in order to gauge what skills they should be practicing in Reception, what prior learning they may have had in nursery and what they will be doing next in year one. We were able to use vocabulary such as angle, shot, re-take, re-play and record. I also consulted Foundation Phase Framework (WAG, 2008) which states learners should "experience and use a range of media and stimuli including emerging technologies".



The learners thoroughly enjoyed the opportunity to record their work and watch their peers recordings. They responded positively to creating success criteria after their first take and were able to make constructive comments about whether they had actioned these in take two. When using it again in the future, it would be even better if I could have assigned learners roles so they were more in charge of the digital competency element. For example, if they had designed themselves recorder, editor, director etc.

Illustrative Example 5

Numeracy

Week 1: RE (Hanukkah)

Counting the candles and 8 days of Hanukkah

This lesson was primarily an R.E lesson taught to Reception in the Autumn Term. I incorporated the literacy and numeracy framework by building on numerical skills. Before teaching the lesson, my senior mentor reflected on my lesson plan and did caution to me that I shouldn't lose focus on the primary aim of the lesson which was R.E. Therefore, I went back to my planning to make sure that my delivery would make the lesson objective clear to the learners. This was very good feedback as it made me more aware of how to use cross curricular themes appropriately.

ek 1 R.E W.B 4.11. APLP lesson Plan Phase 1 2019-20 - Saved

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Lesson Plan – Step 1 Cynllun Gwers – Cam 1

Student-teacher	Hannah James	Class:	RZD
AoLE or Subject	R.E	Date:	6 + 7/11/19
Lesson Focus:	Hanukkah		
Meaningful links to Curriculum	As shown in the R.E curriculum 2008: Children should (through stories, activities and experiences) be given opportunities to: gain insight into religion, religious people and religious aspects of life. investigate and express meaning (including religious meaning) through signs, symbols artefacts and imagery (p17b)		
Meaningful links to: Cross Curricular Responsibilities	Learners develop their number skills across the curriculum by using mathematical information, calculating, and interpreting and presenting findings. p7		
Personal Targets (Linked to QTS and identified in weekly review)			
Cross-curricular themes <i>The student-teacher knows, understands and engages with the principles of curriculum design and innovation, with development of cross-curricular themes relevant to areas of learning and justifies decisions.</i>			
Challenge and expectations <i>The student-teacher provides appropriate levels of challenge and expectations for the range of student abilities and characteristics, motivating learners to achieve.</i>			
Seeking advice and support			

I choose to use cross-curricular skills from the Literacy and Numeracy Framework in this lesson because it enhanced the learning and didn't need to be forced into the lesson. Numerical skills helped the learners understand the eight days of Hanukkah and how that features in the eight main candles of the Menorah which we made. I used the Literacy and Numeracy Framework (2019) and Successful Futures (2015).

Using numerical skills really enhanced the learners engaged with the lesson. I used an IWB game to begin with to count the candles, then we used counting to build a success criteria for their main task. In the plenary when we read a story about the eight days of Hanukkah. The learners were able to work out how many candles would be on the Menorah based on what day of the festival it was.

Week 1 R.E W.B 4.11. APLP lesson Plan Phase 1 2019-20 - Saved					
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	Opening phase with links to prior learning	Whole class teaching Teacher uses Rabbi puppet and Menorah to introduce topic and engage interest. THINK PAIR SHARE "Have you seen this before?" "What could it be used for?" "While you watch the video look out for these objects and what they might be used for?" Watch: http://5.150.66.101/espresso/primary_uk/subject/module/video/item1100397/grade1/module1099401/index.html THINK PAIR SHARE "Talk in your partners about what you remember from the video. Did you see the objects we'd discussed? What interested you and why?" Use leading questions to unpack what the objects are and how they are used as part of the Hannukkah celebration. Play: http://5.150.66.101/espresso/primary_uk/subject/module/activity/item1100029/grade1/module1099401/index.html To keep the focus on R.E, the candle counting game will relate to the day of the festival. Eg 1 candle means its the first day of Hanukkah	Learners talk in pairs to make educated guesses about what the Dreidel spinner and Menorah candles could be Whole class feedback Watch the videos Learners talk in pairs about what they can remember from the video and what they found interesting. Whole class feedback about the two objects and the video. Count candles in game and try to provide answer where possible.	and game Rabbi puppet Menorah	

I do think this was a successful experience of using the LNF to build cross-curricular themes. However to improve I need to bear in mind that I need to keep my focus on the main lesson objective.



Illustrative Example 6

Curriculum Cymraeg

Weeks 2, 3 and 4: **LBM**

Counting in Welsh

I taught little big maths most days during my placement. The class was in Reception and Little Big Maths is taught for ten minutes every day before snack time. I taught big maths to half the class at a time. It's taught Monday to Thursday and one theme is built on during the week. This is an excellent opportunity for building on prior learning and learners leading the learning.

I chose to use curriculum cymraeg as cross curricula link with Little Big Maths as it's an excellent opportunity for the learners to build on prior knowledge and encourage Welsh across the curriculum. Hopefully, this will go towards learners feeling confident to use incidental Welsh during games and play time. I consulted the curriculum cymraeg and notes from my university Welsh lessons. I am also studying an evening course with Learn Welsh so was able to consult my learning on that so far to support me.

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		Day 2	Day 2	
Teaching & Core Learning		Warm Up: sing 10 yellow bananas. Count backwards from 10 to 0. In Welsh and English.	- Sing the song in Welsh Mae e'n deg banane melyn.... - Scaffold the counting on the number line depending on the learner's response. If they can do it independently or chorally then great, if not model and elicit numbers - If learners are confident, they could have a number line and a dice in pairs and count back 1 together	Large number line Dice Number lines
		Activity: lay out a large number line in the middle of the circle. And count along it forwards and back. Roll a die with numbers between 4 and 10. What number did it land on? What number is 1 less? Use large number line to help less able to 'count back 1'. Repeat		

	back. Roll a die with numbers between 4 and 10. What number did it land on? What number is 1 less? Use large number line to help less able to 'count back 1'. Repeat several times in Welsh and English Day 3 Warm Up: sing 10 red strawberries. Count backwards from 10 to 0 in Welsh and English. Activity: Beth sy'n yn y bag? Have numbers 1 to 10 in the box and pass it around the circle. When you hear the shaker, choose a number? What number is it? Can you say the number 1 less than that number? Continue until all the numbers are gone in Welsh.	not model and elicit numbers • If learners are confident, they could have a number line and a dice in pairs and count back 1 together • Confident learners could also model the activity to their peers • Sing the song in Welsh Mae e'n deg mefus coch. • Pick a number from the bag. Identify the number and what one less than that number. • For added challenge the learners could identify the numbers in Welsh. • Students could ask each other beth sy yn y bag and find 'consensus' on peers answer before teacher/TA confirms whether its correct.	Bag Small number flashcards to go in the bag Number line
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The learners responded well to using Welsh cross-curricula skills. They really enjoy being Helpwr Heddiw and winning the Siarter lath bear at the end of the week as a reward for using Welsh. These contribute to a positive attitude towards Welsh amongst the learners so cross curricula is warmly welcomed. To improve I could ask the learners how they could incorporate Welsh into their independent play.

Good teaching and learning means employing a blend of approaches including those that promote problem solving, creative and critical thinking.

08 December 2019 16:19

Illustrative Example 7

Problem Solving

Week 4: Outdoor Maths (Silly Soup recipe cards)

This outdoors maths lesson was taught to Reception in the Autumn Term. The primary focus was to look at developing their understanding of more and less. This lent itself well to problem solving skills. I chose to develop problem solving skills with the learners as it is an important part of the four purposes as is drawn out in Successful Futures (2015). Problem solving is a key skill that learners can take with them across the curriculum and in their daily lives.



We had looked at building problem solving skills in a previous maths lesson so they were able to build on prior knowledge. Using a tree map helped them to order their thoughts and make sense of the problem solving activity.

<u>Teaching & Core Learning</u>	Explain we are going to make a silly soup. Show recipe cards and count how many vegetables there are altogether on the card. Introduce another recipe card and compare which has more or less. Give each pair or learners a silly soup card. Give them a bowl and let each pair go and collect their vegetables. Then they count how many they have in their bowl altogether and stand on the corresponding number on the number line. Eg if they have 5 carrots in their soup, they can stand on number 5. Learners then compare who has more or less in their soups. <u>Differentiation</u>	- Look at ingredient cards and collect what vegetables are shown on there in their bowl - Add up how many vegetables they have in total - Stand on the number line accordingly. Of a pair, one learner will have a number tile to hold up, one learner will hold the bowl	Potatoes Carrots Bowls Trays Ingredient cards
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By creating the silly soup cards in four different levels, it meant the learners could approach a challenge suitable to their current problem solving skills and build onwards from there.

Reflective Analysis of Teaching and Strategies for Development – including justification/rationale for pedagogical choices	
Evidence of my Effective Practice	WWW Differentiation <i>The student-teacher demonstrates knowledge, understanding and experience of high expectations and effective practice in meeting the needs of all learners, whatever their different needs.</i> <i>I differentiated the task by preparing levelled 'silly soup' cards for each group. There for each group would develop their problem-solving skills at a level of challenge suitable for them. For the lower group numbers didn't exceed 8 and used pictures, whereas for the higher group numbers went up to twenty and I used numbers rather than pictures. This worked really well and engaged the learners in an appropriate level of challenge. I was able to make it more appropriate from reflecting on my previous outdoor maths lesson.</i> 

If I was to teach this lesson again, I could give the learners a choice of strategies to record the problem. For example, a bubble map could be another method of recording their findings. I could have also accessed the learners to explain how they had reached their conclusions so they understood how they

had solved the problem and maybe be able to identify the strategies that helped them to get there.



Illustrative Example 8

Creative

Week 4: R.E (Clay Diwali Lamp)

This lesson was taught as part of an immersion day for Diwali with Reception. The focus was to expand their knowledge and understanding of the religious festival, Diwali. I choose to use a creative lesson like making Diwali clap lamps because it is something tangible the learners could really get to grips with.

Lesson Focus:	Diwali: Make diva lamps from clay
Meaningful links to Curriculum	FP Skills investigating sources and issues raised through stories, holy books, festivals, celebrations and <u>rights</u> of passage show curiosity and develop positive attitudes to new experiences and learning particularly when learning about people from other religions and cultures develop an awareness of different cultures and the differing needs, views and beliefs of other people in their own and in other cultures consider why people, including religious people, value and seek times of creativity, inspiration, awe and wonder, peace and tranquillity and revelation experience exciting, wonderful, inspirational, creative and/or quiet times and express ideas and feelings about these times creatively, explaining why they are significant FP Range: explore and express meaning in creative ways (through art, dance, ritual, artefacts) investigate and express meaning (including religious meaning) through signs, symbols artefacts and imagery Taken from: National exemplar framework for religious education for 3 to 19-year-olds in Wales (p16,17a,17b)
Meaningful links to: Cross Curricular Responsibilities	Creative development: mix, shape, arrange and combine materials to create their own images and objects that communicate and express their ideas, feelings and memories creatively develop and use their understanding of colour, line, tone, texture, pattern, shape and form

We had seen them and talked about their significance during the opening task, but moulding and decorating their own lamps helped to deepen their understanding of the form of the lamp.





While production, it was also an excellent opportunity to use questioning about what they are making, when they are used and why that are important during Diwali. The school puts a lot of emphasis on literacy and numerical skills and my class mentors expressed their to be pressure for the learners to be writing early on in Reception. For this reason, my class mentor felt that fine motor skills developed through creative activities didn't always get enough attention. The Diwali immersion day appeared to be an ideal opportunity to develop their fine motor skills in a way that enhanced their learning around Diwali.





Illustrative Example 9

Creative

Week 4: R.E (Diwali Rice Rangoli)

This lesson was taught as part of an immersion day for Diwali with Reception. The focus was to expand their knowledge and understanding of the religious festival, Diwali. Rangoli patterns are often made with dyed flour. However, I adapted it to dyed rice as it was accessible to the learners. I chose this creative task as it allowed them to practice their fine motor skills working with new and engaging materials. The creative element of the activity allowed children to think about ideas such as colours, symmetry and shapes. The use of bright colours and patterns helped to understand how the rangoli feature as part of the religious celebration.





I consulted blogs, videos and books on the Diwali celebration and how young learners can engage with it. Most learners thoroughly enjoyed the activity. With this activity I chose not to co-construct the success criteria, instead giving learners much more autonomy over the task. This was very interesting as some learners were quick in their production of their pattern not paying close attention to keeping in the lines, whereas others spent a very long time very focussed on their pattern considering shape, colour and symmetry.



This lesson would have been better if it was taught in conjunction with a maths lesson on symmetry or there had been more room for learners to explore the designs further with chalks outside. However, as the lesson was part of one immersion day there were a lot of tasks to get through and it did not fit into where they were in maths or literacy beyond the immersion day.

Critical Reflection

08 December 2019 16:19

Prepare a portfolio (as though you were sharing with a mentor or student colleagues) which illustrates a critical reflection of progress made on the planning and implementation of three pedagogical principles.

Word count: 3,152

The purpose of this critical reflection is to engage with key literature that explores the theory and practice of effective teaching and learning with reference to three of Donaldson's pedagogical principles (Successful Futures, 2015). Through developing a deeper understanding of the research surrounding effective teaching and learning, this critical reflection will be able to identify and evaluate the progress and implementation of three of Donaldson's' pedagogical principles so far in PTE1. Finally, this critical reflection will cross reference the theory, informed research, and practice, annotated examples from PTE1, to draw conclusions about the progress of the three pedagogical principles in planning and implementation and how they might inform future practice.

Whether effective learning and teaching can be defined or measured has been the source of much educational debate (Coe et al 2014, Timperley 2008, Hattie 2008). However, the co-dependence of effective learning and great teaching is widely acknowledged (Coe et al 2014, Timperley 2008, Hattie 2008). Coe et al propose that "student progress is the 'yardstick' by which teacher quality should can be assessed" (2014, p2). The question of how teaching quality is assessed in order to yield the greatest amount of learner progress has yet to be settled. Timperley sets out five strategies for successful professional learning (2008), whereas Coe et al outline six components of great teaching (2014). Although Coe et al (2014) discusses teacher quality, Hattie warns against focussing on teachers' personal qualities (2008). Hattie encourages the discussion surrounding pedagogy to be of the nature of teaching rather than the teacher themselves (2008, p126).

In Successful Futures (2015), Donaldson outlines "the fundamental interdependency between the purposes of the curriculum and pedagogy" (p63). The reference to curriculum relates to Successful Futures (2015) which is scheduled to be in affect

across Wales by 2022. However, effective pedagogy is more difficult to define (Coe et al 2014, Strong et al, 2011; Hamre et al, 2009). For the purpose of this critical reflection, three of Donaldson's' pedagogical principles will provide the benchmark for effective teaching that the PTE1 illustrative examples are weighed against. It is of interest that Donaldson refers to both Hattie (2009) and the Sutton Trust in Successful Futures (2015). This offers insight into the key research that may have played a role in shaping Donaldson's' twelve pedagogical principles. The Sutton Trust-EEF Teaching and Learning Toolkit (2011) identifies collaborative learning, feedback, metacognition and self-regulation as of moderate to high impact. These are all key strands of the developing thinking and assessment for learning (AFL) guidance (WAG, 2010).

Successful Futures outlines that "good teaching and learning means employing assessment for learning principles" (2015, p67). Donaldson stresses the importance of meaningful feedback and peer collaboration, supported by Hattie (2008) and The Sutton Trust (2011). William proposes that although AFL is easy to understand in principle, it is the effective and consistent implementation of them in the classroom that proves more challenging (2016). AFL has been developed from the narrative surrounding formative assessment. Both Sadler (1989,) and Black and Wiliam (1998), support that implemented effectively formative assessment can raise students' outcomes and contribute to closing the attainment gap. This research continues to inform contemporary practice and policy through Successful Futures (2015) and Estyns' Improving Teaching report (2018). Estyns' report (Improving Teaching, 2018) highlights the dangers of teacher's adopting techniques that are not supported by research-based evidence, a point echoed by Wiliam (2016) and Hattie (2008). The importance of consistency in approach of well researched strategies (Black and Wiliam 1989, Wiliam 2016, Paschler 2008) is supported by Estyns' inspection findings. Estyn reports that the policies of schools achieving excellence "made strong links between curriculum, pedagogy, teaching and learning [which] led to high levels of consistency and accountability" (2018, p5). Therefore, the potential positive outcomes from AFL should be used to support and be supported by the curriculum and context in which their operating (Estyn 2018, Black and Wiliam 1989).

However, AFL principles, as supported by Donaldson (Successful Futures, 2015), Estyn (2018) and Welsh Assembly Government (2010), have not escaped

scrutiny (Sadler 2007, Torrance 2007, Ecclestone 1999). Although in support of formative assessment, Sadler has warned that assessment has the potential to “masquerade as, or substitute for, learning” (2007, p388). Sadler argues that in reality AFL is a “problematic mix of mere compliance” (2007, p3). Torrance (2007) echoes Sadler’s (2007) sentiment suggesting that AFL has become assessment as learning in which success criteria replace rather than aid learning (2007). Therefore, AFL could still fall victim to the unresearched or unevidenced strategies Black and Wiliam (1998), Paschler (x) and Donaldson (2015) seek to avoid if there is ‘uncritical acceptance’ of AFL that is ‘prescriptive’ and ‘standardised’ (Ecclestone, 1999 Ask about to reference the words in apostrophes). It seems that criticism of AFL is not that constructive feedback, peer collaboration, or any particular strand of AFL is altogether worthless, but rather these strategies need to continually be engaged with critically. Didau criticises the ‘big idea’ of AFL as individuals and institutions who have invested in it may no longer retain the criticality to assess its individual workings (Didau, 2014). The ‘big idea’ of AFL that Didau (2014) criticises could be identified as a type of monocausal analyses which could contribute to the gap between educational research and practice (Broekkamp et al, 2007). Monocausal analyses occurs when one solution is defended as the answer to all problems (Broekkamp et al, 2007). As Successful Futures (2015) proposes twelve pedagogical principles, the triangulation of these minimise the risk that Didau (2007) anticipates from an over-emphasis on AFL as the only solution to ineffective teaching and learning.

Donaldson recognises the limitations of focusing on one particular area for success (Successful Futures, 2015), instead highlighting “the need for a broad repertoire of teaching and learning experiences” (2015, p65). This is supported by Donaldson’s ninth pedagogical principle; “good teaching and learning regularly reinforces Cross-curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them” (Successful Futures, 2015.) However, it could be argued that cross-curricula links occur more fluently between some subjects and educators may struggle to create authentic contexts across all cross-curricula responsibilities (Donaldson 2015, Hayes 2010). Barnes (2015) argues that life itself is cross-curricular and learners’ form understandings within the context they live making connections beyond the curriculum and classroom. Hayes (2010) also pays attention to the ever-changing environment children are growing up in and warns against “endless fiddling with the curriculum” as it could add confusion to

learners in and beyond the classroom. PISA likewise addresses subject skills in their relevance to learners' wider life (OECD, 2013). For example, PISA recognises that mathematical knowledge is necessary to "solve problems and interpret situations in personal, occupational, societal and scientific contexts" (OECD, 2013, p31). Applied correctly, learners can access the important cross-curricula benefits that PISA addresses (OECD, 2013). However, Donaldson addresses the challenges of cross-curricula learning and teaching, stressing that links must become "natural and authentic rather than an add-on" (2015, p69).

In a recent survey on curriculum innovation in primary schools, Estyn have found that many primary schools are still teaching "mathematics and language in the morning and thematic or topic work in the afternoons" (2018). This suggests that maths and language are still largely being taught in isolation. Regarding digital competency, Estyn (July 2018) have found different challenges throughout the learning stages. For example, digital leads have done well to offer opportunities for digital competence across the curriculum in key stage three (Estyn, July 2018). However, in key stage four teaching and learning is focused on examinations so does not offer ample opportunity to develop and transfer digital skills (Estyn, July 2018). Furthermore, Estyn found that where the DCF was being implemented across the curriculum, there was not enough recognition and action on the gaps in provision that are still present (July 2018). In Estyn's report (July 2018) there is a focus on the role of digital leads within schools. However, a Welsh Government report (2013) highlights the importance of learners understanding of the LNF to successfully integrate it across the curriculum. Welsh Government (2013) proposes that using components of AFL strategies, such as sharing success criteria, alongside the LNF will increase learner's ability to identify cross-curricula learning and better understand how to employ literacy and numeracy across the curriculum. Despite the potential challenges of cross-curricula learning, Roy offers examples into how a creative approach to learning can not only break down subject barriers, but also break down barriers students may feel towards certain subjects (2017). Roy argues that a cross-curricula approach to science is necessary if learners are to find solutions to societies challenges (2017). Cross-curriculum responsibilities are arguably an important part of ensuring that teaching and learning is relevant to learners' life within and beyond the classroom (PISA 2013, Barnes 2015, Roy 2017).

Like Roy (2017), Barnes argues that "creativity and cross-curricularity are linked"

(2015). The challenges that cross-curricula responsibilities can face could be supported by another of Donaldson's pedagogical principle; "good teaching and learning means employing a blend of approaches including those that promote problem solving, creative and critical thinking" (Successful Futures, 2015). While the OECD recognises a "growing consensus" (2019) amongst educators of the benefits of skills, such as problem solving, creativity and critical thinking, they highlight that how these skills are going to be embedded and assessed as part of teaching and learning is less clear. It is here where the co-dependence of all three pedagogical principles discussed may offer insight into ways forward. While the Welsh Government (2013) recognise the opportunity for collaboration and problem-solving when AFL and LNF work to support each other (2013, p67), the meta-cognition and self-regulation fostered through AFL could contribute to learners being able to see where and how they need to use certain skills across the curriculum. If the pedagogical principles goals are used collaboratively, they could equip learners with the skills and self-awareness to be successful beyond the classroom as envisaged by Donaldson's Four Principles (2015). There seems to be an overlapping nature across the pedagogical principles that are encouraging learners to have transferable skills and the awareness of how to use them. The pedagogical principles could be a triangulation strategy to achieving the Four Purposes (Successful Futures, 2015) through effective learning and teaching. It is not then that particular teaching approaches are effective in isolation, but that with careful planning, good organisation and considered implementation they can be used effectively as part of a range of strategies (Husbands and Pearce 2012, Hattie 2008, Stronge et al, 2007).

My Hanukkah lesson as shown in Illustrative examples one and five is an excellent example of how AFL, cross-curricula responsibilities and a blend of approaches have complimented each other to create an engaging and dynamic lesson for the learners. Initially, during the planning stages my senior mentor had warned me that I needed to keep the primary focus of my lesson clear as she was unsure whether it was a maths or R.E lesson. This advice is in line with Welsh Government guidance that the LNF should be incorporated into the learning expectations of every lesson (2013). My mentors' advice was an important distinction that cross-curricula responsibilities should enhance rather than dominate the lesson. This was picked up before delivery and I have been able to refer to this in future lesson planning and implementation.

Due to the nature of foundation phase, the lesson was taught over two days. The

opening and plenary were carried out as whole class teaching, whereas the main task was delivered as a group task. This allowed for a blend of approaches to be used to enhance different elements of the lesson. During the opening and plenary, AFL strategies allowed learners to develop their ideas. For example, think, pair, share, (WAG, 2010, p84) was followed by open class feedback in which basketball, not ping pong (WAG, 2010, p41) was used. This also offered learners' the opportunity to develop their oracy skills (National Literacy and Numeracy Framework, 2013). However, during the small group task I was better able to scaffold learning that was more creative and build on problem solving skills. The structure and significance of the religious festival was supported by a numerical understanding of how many days the festival lasted as this was significant to how many candles were used in a Menorah. Learners were able to make this connection during an interactive counting game, during the production of their Menorahs and in their understanding of a story on Hanukkah. Husband and Pearce (2012) propose that it is a "combination of pedagogic strategies and their deployment in combination that makes for success". This lesson allowed for the three pedagogical principles discussed in this assignment to be used. However, AFL proved particularly insightful in the main task.

During PTE1 I was aware of Successful Futures (2015) endorsement of AFL as informed by evidence based research, while also mindful that some strategies would not be appropriate in the context of a Reception class in their first term. Therefore, the challenge for me regarding AFL was to engage with strategies critically so that it supported the learners at their level, rather than shoe horning in certain strategies that I wanted to test. For example, in Reception certain strategies, such as two stars and a wish (WAG, 2010, p86), would have to be conducted verbally rather than written. This was a useful tool for peer and self-assessment during an outdoor literacy lesson as noted in illustrative example three. However, in illustrative example one I asked the learners to construct their own success criteria for the main task. Although they engaged well with the example, I wrote their suggestions on a whiteboard for them which is to some extent obsolete as they cannot read. In future, I could consider the learners recording their success criteria verbally so it could be played back to them at any time. As the Hanukkah lesson in illustrative example one was the second lesson I taught during my first week, perhaps my knowledge of the learners' abilities was not yet adequate to make a fully educated decision on the most appropriate AFL strategies to use. Hattie (2012, p42) proposes that it essential

a teacher understands a learners' prior knowledge in the planning stage in order to be able to build on it. At the beginning of PTE1 the ignorance of a learners' prior knowledge is to some extent unavoidable. However, I will continue to consult my class mentors when planning to minimise the risk of lessons that are inaccessible or too easy for learners based on prior learning.

I chose not to write co-constructed success criteria in illustrative example 9 which offers an excellent source of comparison to illustrative example 3 as both lessons are primarily R.E lessons with cross curricular links to expressive arts and a creative approach. Torrance (2007) raises questions about the place of student autonomy when success criteria is so transparent. During illustrative example 9 there was more variation in the work the students produced. In illustrative example 1, learners worked in their small groups and I led the learners through the activity in stages. It could be argued that scaffolding was so comprehensive in Illustrative Example One that it took away from a level of challenge and learner autonomy (Sadler 2007, Torrance 2007). To some extent, I may have over scaffolded because at that early stage in PTE1 I wasn't aware of learners' creative skill level raising the importance of Hattie's research on the importance of understanding learning prior knowledge (2012, p42). In contrast, in illustrative example 9 I provided the supplies and an example, but they had more autonomy on how to produce their design and how long they wanted to spend on it. This calls into question whether the Rangoli designs produced without success criteria were more valid and worthwhile (Torrance 2007). Success criteria has the potential to stifle learners' development as it may not leave room for what else the student may be able to produce beyond the success criteria which Torrance (2007) argues could be beneficial to learners' wider development. It is possible that without success criteria there is more room for individuals to develop their problem solving, creative and critical thinking skills.

Problem solving was probably the most challenging skill to incorporate successfully in Reception. Although there are plenty of opportunities for problem solving tasks and their skills can be used across the curriculum, I found it more challenging to assess their learning. For example, in Illustrative Example Seven and Eight problem solving was a key component of the outdoor maths lesson. An Estyn report found that schools identified the outdoors an area where learners can "learn to co-operate and apply their thinking skills to real problems" (2011, p6). This appears to support outdoor learning as an environment to develop problem solving. Similarly, the

Foundation Phase Curriculum proposes that outdoor learning could be better exploited as a learning resource (2008, p3). Although there is a lot of support for outdoor learning (Estyn 2011, 2019, WAG 2008), Estyn does recognise that there needs to be a “more comprehensive approach to outdoor assessment” (2011, p2) as it has been less focused and frequent than indoor assessment. Although the benefits of problem-solving skills in conjunction with the outdoor learning environment are well supported (Estyn 2011, 2019, WAG 2008), I found the realities of outdoor learning challenging. As shown in illustrative example seven and eight I discussed this with my senior and class mentor the challenges of outdoor learning and they felt they had similar issues still as experienced practitioners. To be able to fully exploit the outdoor learning environment as a resource for building problem-solving skills, I will consult Estyns’ search tool of effective practice to considering other practitioners experiences. I will also seek to sign up to any continuing professional development opportunities in outdoor learning and problem-solving. One strategy I could use where appropriate in future is learners’ creating a garden with cones to work in as evidenced in Illustrative Example one. Although I used this technique indoors, it is a strategy that I could apply outdoors to encourage learners to remain focused on problem solving tasks in the outdoor environment.

Critical thinking was well scaffolded in my PTE1 placement school as the school used Learning Heroes for learners to identify or aim for characteristics, such as resilient Rhys and Independent Ioan. They also practiced the Learning Pit so that learners could understand the process of learning, identify where they are within in and reflect on what strategies could help them progress. The Education Endowment Fund found that “metacognition and self-regulation approaches have consistently high levels of impact” (EEF, 2011). These useful techniques can be applied across all areas of the curriculum and to reflect on a blend of approaches. I will be mindful to continue to grow my understanding of how to incorporate critical thinking into my teaching practice. Moving into PTE1 part 2 I am also aware that I could have exploited more opportunities to involve DCF. Although I used the DCF effectively in Illustrative Example seven it was in a skill I felt confident in. I need to up skill myself in order to be able to a more diverse range of digital opportunities and get more familiar with the digital resources available for teachers and learners.

In conclusion, excellent teaching and learning is not achieved through a single ingredient, but by careful consideration and implementation of a range of strategies

dependent on the context and learners. I will continue to build my knowledge and experience of how pedagogy, curriculum and learning work together in order to secure the best possible outcomes for learners.

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08 December 2019 16:20

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