

Title Page

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Name: Mrs Charlotte Forester

Student number: 1902070

Pathway: Primary

Targets from previous assignment:

	Target	What I have done in this assignment...
Target 1	To develop further the addition of page numbers for references where possible.	I have included page numbers where possible.
Target 2	To include deeper analysis (and literature) of relevant methodologies when assignments involve educational research (e.g. Cohen et al/Kumar).	I hope that I have adequately analysed literature linked to educational research.
Target 3	To compare and contrast points from literature and explore new thought this may lead you towards (synthesis of ideas).	This essay was not a critical analysis it was more of an evaluation of well-established principles.

Link to OneNote: https://uowtsd-my.sharepoint.com/:o:/g/personal/1902070_student_uwtsd_ac_uk/EkN1QdvuO9pMnpDio7jkrw0BBDUGPNrJkAvenwdx8rDYcg?e=AKM94G

Prior Knowledge - Illustrative Example 1 - Bonds

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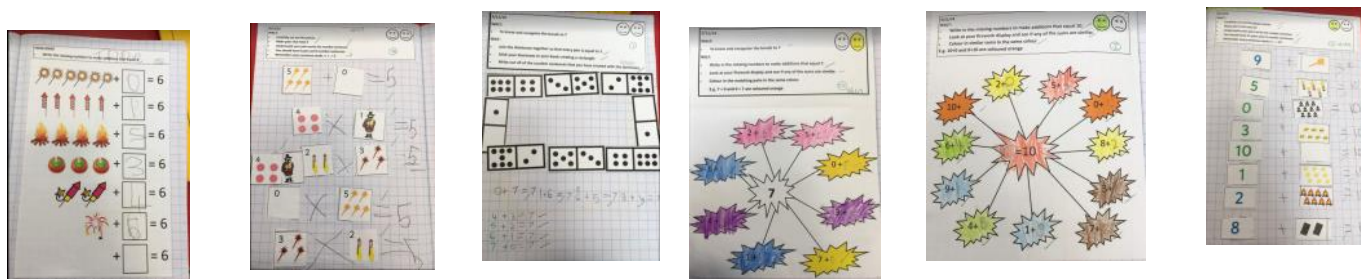


Fig 1. Evidence of Prior knowledge and understanding of number bonds to solve addition



Fig 2. Using knowledge of number bonds to solve subtractions

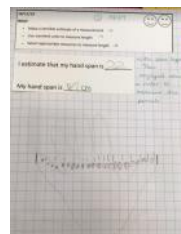
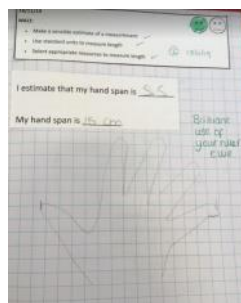
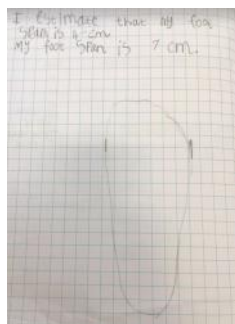
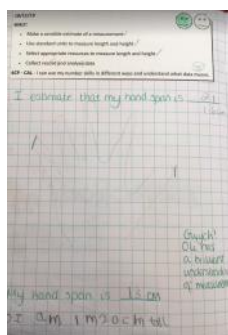
Date	Wednesday 6 th November 2019
Student-teacher	Mrs Forester
Class	Year 1 Tavernspite School
Age or Subject	Maths
Lesson focus	Known addition facts for 6 and 10 to solve subtractions
Meaningful Links to curriculum	Foundation Phase Framework - Select and use number facts and mental strategies - Use number facts within 10 - Use know facts to solve simple problems within 10 - Solving one-step problems that involve addition - Understand number symbols and mathematical terms
Meaningful Links to cross curricular responsibilities	Welsh - 1 - un, 2 - dau, 3 - tri, 4 - pedwar, 5 - pump, 6 - chwech, 7 - saith, 8 - wyth, 9 - naw, 10 - deg SKIP/Physical Development - aiming and accuracy with a ball
Link to Four Core Purposes	
Personal Targets (Linked to QTS, identified in weekly review)	HCI - 4 I enjoy taking part in physical activity CAL - 9 I can use my number skills in different ways and understand what data means
Learning Objectives (WALT)	Use known number facts for 6 and 10 to solve subtractions
Success Criteria (WALE)	To knock over pins (aim accurately) To count the number of fallen "pins" To write the number sentence To answer the sentence
Assessment of Pupils' Learning	Seeing how accurately they can throw Watching them count the number of "pins" knocked over Correctly writing up their score and taking it away from the total number of pins

In the Bowling Maths Lesson, children were required to access their prior knowledge, known number facts for 6 and 10, to solve subtraction. The lesson was successful in drawing on the prior knowledge and engaging interest. The pupils enjoyed the lesson and were able to participate in the activity. Children were engaged and worked as a team. The learning was then consolidated the next day when the pupils wrote up their results.

Fig 3. Lesson Plan to apply knowledge of number bonds to solve subtractions

Illustrative Example 2 - Measure

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Time	Activities/ Methodology/Key Concepts	Pupil Tasks	Resources
Opening Phase	Dressed up as a builder. Today I am builder forester not Mrs Forester as I have been asked by Mr Phelps to measure this class room in case we get a new carpet! What do you think I should use to measure the width of the room? Pencils? Meter stick? How many meter sticks do you think we'd use to measure the classroom? Estimate 8, 4 10 etc. Measure the classroom. Because not everyone has lots of meter sticks and handy helpers. You could use a tape measure like a builder or like you might have seen at home. Draw around my hand on the board, mark the end of my thumb and little finger. Draw a line to join the two, then measure the line. Ruler. Demonstrating how to use the ruler correctly. Well done ... da lewin	Covering different measuring tools for different things Tape measure And bring in actual tape measure	Hard hat and Hi-Viz Jacket Ruler Blocks Meter stick Tape measure

Measuring the lengths of different objects

Object	Estimate	Actual
Cat	20 cm	22 cm
Dog	50 cm	50 cm
Fish	20 cm	20 cm
Robot	10 cm	10 cm
Snake	10 cm	10 cm

Measuring the lengths of different objects

Object	Estimate	Actual
Cat	20 cm	22 cm
Dog	20 cm	22 cm
Fish	9 cm	12 cm
Robot	40 cm	40 cm
Snake	100 cm	130 cm

Measuring the lengths of different objects

Object	Estimate	Actual
Cat	20 cm	22 cm
Dog	20 cm	22 cm
Fish	9 cm	12 cm
Robot	40 cm	40 cm
Snake	100 cm	130 cm

The pupils in Year 1 had been introduced to measure in Early Years and this was developed with estimation and non-standard forms of measure. The children were very keen to develop this to using actual units of measure. So for the second lesson on measurement we really explored their knowledge in the introduction. I engaged the class by dressing up as a builder and we discussed real life contexts of using measure. I believe this enthusiasm to explore standard units of measure was as a result of engaging their interest in the introduction by linking it to what they already knew.

Illustrative Example 3 - Aladdin

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The whole school went to see Aladdin the pantomime. To help them enjoy the play fully, I read the story to the class several times. There was a beautiful picture on the last page with a silhouette of Arabia. The children in Year 6 had made silhouette pictures for their topic of Africa and the Year 1s had enjoyed looking at them. The children studied light earlier in the term, so understood the concept of light and shade. They enjoy and understand the use of colour. So we discussed as a class the concept of a silhouette linking it back to their understanding of light. We also discussed how to blend paint using a wash. The children have explored paint in both play and in art lessons. The children also enjoy using scissors and cutting things out, however, I became aware that they all wished to improve their cutting skills, so this activity gave them time to develop these skills. The creation of the silhouette picture drew on both the children's prior knowledge and engaged interest.



Learning Objectives (WALT)	use shape, arrange and combine materials to create an image from Aladdin
Success Criteria (WILF)	To cut out shapes from the templates on black paper To create a wash effect for either sunrise (red, orange and yellows) or sunset (purple, blue and pinks) To form a picture combining the two
Assessment of Pupils' Learning	The precision/accuracy of their cutting and coherence of their picture.

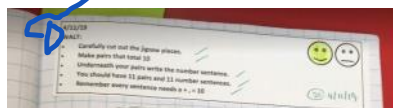
Illustrative Example 1 – Marking

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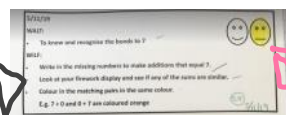
To mark the children's work we use a number of AfL techniques. Firstly, we always use green pen to positively reinforce our comments.

Secondly, we live mark to ensure the children are on track throughout the lesson. This avoids the child reaching the end of the lesson, thinking they've got it, for it then to be marked when they then don't receive the feedback until the following day or lesson. If a child has an incorrect answer we put a dot and encourage them to write the correct answer next to the dot. However the children often rub out the incorrect answer when they realise that it is wrong. But the dot allows us, when we look back through the books to see how the pupil found the work initially.

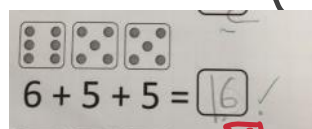
To give us a good gauge of the level of the pupil's understanding of how the pupil completed the task we either write S – support; SS – some support or I – Independent. We also tick or arrow, the WALT, learning intentions, so that we are aware of whether the topic or subject needs to be revisited.



For each lesson the children are given the WALT (We Are Learning To) this is stuck in their books. It is also referred to in the introduction and in the plenary, so the pupils are always aware of what they are working towards.

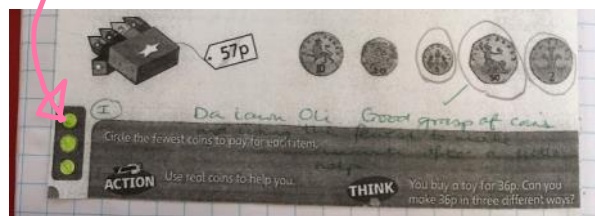
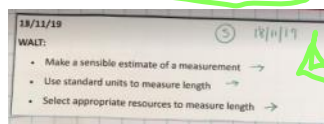


Due to the children only being 5-6 years the WILF or success criteria are explained verbally or written as single words, when appropriate, on the board. I initially put the WILF with the WALT but it created too much information for the children to process and used up too much space on their page.



Self-assessment. Once the pupil has completed the task they will colour in the smiley face according to how they feel about the task. Green for got-it and yellow for not quite there yet.

The maths scheme of work sheets are sometimes used and they have a traffic light system rather than smiley faces.



Teaching & Core Learning	Group 1 Mrs Keating & Miss Sjora	Working with Mrs Keating to go over addition. It was identified that the children did not have a solid understanding of the value of number so therefore couldn't apply this to counting on. This part is planned by Mrs K.			
	Group 2 Mrs Forester and Miss Caroline	Have a pile of books with numbers in them. They pick a book and find the number in it. Use the number to complete the sum and they can then work it out. Demonstrate this process on the board. Extension hand written subtractions with numbers larger than 3. Challenge – 4 in a line game using two dice and subtracting			- WALT & Modeling - Question/Task sheet 16 sheets - Books with numbers hidden in

Due to live marking, it became apparent that around half of the class were struggling with the concept in the previous lesson. So in this lesson the class was split into two focus groups to ensure that the core learning was embedded for all children.

Illustrative Example 2 – 2 stars and a wish

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Learning Objectives (WALT)	use shape, arrange and combine materials to create an image from Aladdin
Success Criteria (WILF)	To cut out shapes from the templates on black paper To create a wash effect for either sunrise (red, orange and yellows) or sunset (purple, blue and pinks) To form a picture combining the two
Assessment of Pupils' Learning	The precision/accuracy of their cutting and coherence of their picture.



Plenary - Progression	Comment on how beautiful the pictures look hanging up – 3 children show their work to the class they give themselves a star and they chose someone else to give them a star – something that they like about the picture and one person to give their opinion on how they could improve if they were to do another silhouette picture eg in Year 6. (Year 6 have made African Plain pictures)	2 stars and a wish	2 stars and a wish	artwork
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I encourage the children to link the stars and wishes to the success criteria

For example for the picture above.

*the shapes are really well cut out

*the child has created a beautiful wash effect

-there could be a few more shapes so that we feel like we are looking at Aladdin's palace

The children enjoyed giving the stars for the silhouettes and paint technique or overall picture but struggled with the wish, so I often guided them, ensuring that the wish was linked to the success criteria.

This process I felt is a very good introduction to peer and self-assessment, as it allows children to think critically, it allows pupils to be proud and show off their work and it encourages development without any child feeling like they have failed.



Illustrative Example 3 – Tell your neighbour

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Time	Activities/ Methodology/Key Concepts	Pupil Tasks	Assessment for Learning	Resources
Opening Phase – Engage	Bore da dosbarth un Today – heddiw “hethe w” we are going to do some shopping. So first we will revise our coins. Give every child a coin. Ask them to discuss with their partner sharad what coin they have. Ask a few pairs to tell us what they have and to describe it and together how much money do they have (maybe?). Ask everyone with 1p to stand and give it back etc, I can then check that they all know value of their coin.	Discuss their coin Recognise the value of the coin	Partner sharad Standing up when a value is called	Money cards stuck to board White Board Laptop & interactive board
Tease	Money on the table and fruit on the table.	Select the coin with	Photographs	Money on the table

For the introduction to this lesson on coins, I gave every child a coin (either 1p, 2p, 5p, 10p, or 20p). I then asked them to turn to their neighbour "partner sharad" and discuss their coins. How much they were worth, the colour of the coin, the size of the coin, the shape. Which one is worth more?

I was easily able to spot any children that weren't talking (they were sitting in front of me on the carpet) and I could then guide them in their discussion.

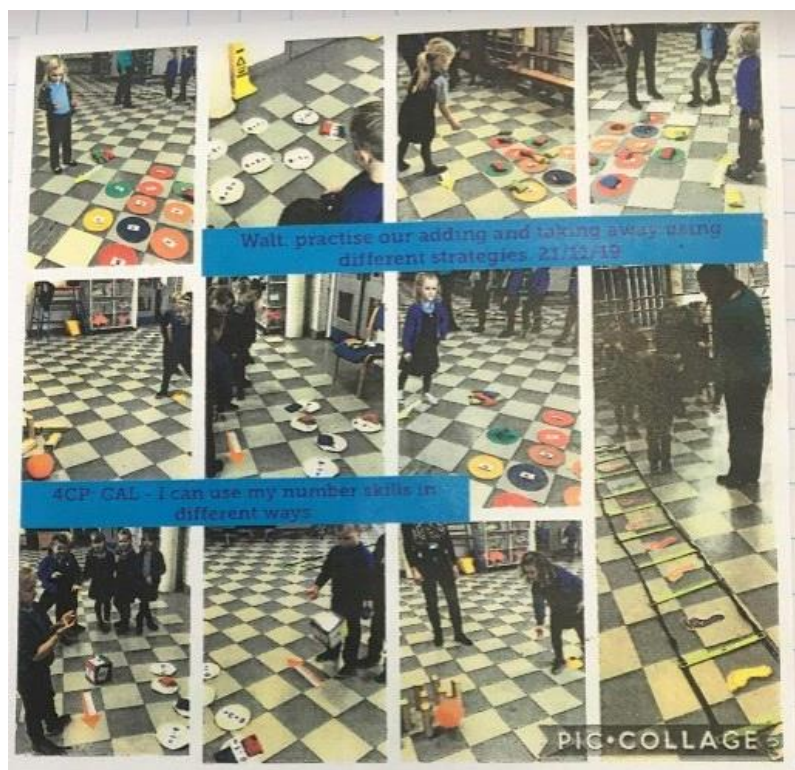
These discussions gave the children time to think and explore each other's ideas of what was important about the coin.

I then asked a child to stand up and tell everyone what coin he/she had and everything they knew about it. Their partner or anyone else with the same coin was encouraged to add any more useful points until we had them all. All the children with that coin came to the front and we added up the total. This was repeated for each type of coin.

There was a range of coin knowledge within this class and this technique allowed all children the time and opportunity to explore theirs and their partner's knowledge without being put on the spot in front of the whole class.

Illustrative Example 1 - Numeracy

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Due to Christmas Play rehearsals the number of taught lessons per week was considerably reduced towards the end of November. To avoid the loss of lessons in non-core subjects numeracy was imbedded into the week's SKIP lesson. SKIP is a motor skill intervention programme that specifically focusses on ball skills. In this lesson each exercise required numeracy to complete the task but also developed the children's throwing, aiming and jumping skills, making it a cross-curricular lesson.

Activity 1	Bowling – 10 pins knock down the pins. Count how many have been knocked down. Subtract the number from 10. Or count the ones standing to make a bond to 10.	- To collect the ball - To aim accurately - To count the fallen "pins" - To stand the pins back upright - To work out the subtraction and complete the sentence	Looking to hear the bonds to 10 either as a subtraction or addition.	10 pins 1 spikey ball
Activity 2	Numbers are set out on spots. Adult asks questions (eg. $9-1=?$, $4+2=?$, $7-3=?$, $10-3=?$, $6+3=?$, $4+1=?$, $5-3=?$, $11-1=?$). The answer is one of the spots. Child says the answer and throws the bean bag onto the spot. Aim is to have all spots with a bean bag on it, so children do not collect bean bags after each go.	- To work out the sum - To aim accurately	Adult to tailor question to the child's ability. Highest number to be 10 so that the children can use their fingers. And either +/- 1, 2 or 3. If more able children need a challenging do.	10 Spots No.s 1-10 10 bean bags An arrow where to stand adult

Activity 3	Leap frog. Child chooses/ adult suggests a number and stands by that number. Adult says "add 3 or subtract 3". Child must jump, bounce, step three places and say the number they are now on. Adult to encourage children to say the sentence by describing it. Eg started on 4 jumped on 3. 4 add 3 equals 7	- To accurately jump on or back 3 places - To discuss the sum	Adult to encourage the use of mathematical language	Ladder No.s 0-10
Activity 4	Children throw the dice, to reveal a number. The child then finds a sum where the answer is that that they rolled. The child throws a bean bag onto the required sum. Aim is to have all sums covered, so children do not collect bean bags after each go.	- To work out the sum - To aim accurately	To encourage the children to look for bonds	Coloured dice with no's in it. 7, 9, 10, 3, 2, 10. 8 spots with sums on them: $8-1$, $6+3$, $9+1$, $5-2$, $8+1$, $3-1$, $5+2$, $7+3$ Arrow to show children where to stand. 12 bean bags

Illustrative Example 2 - Literacy

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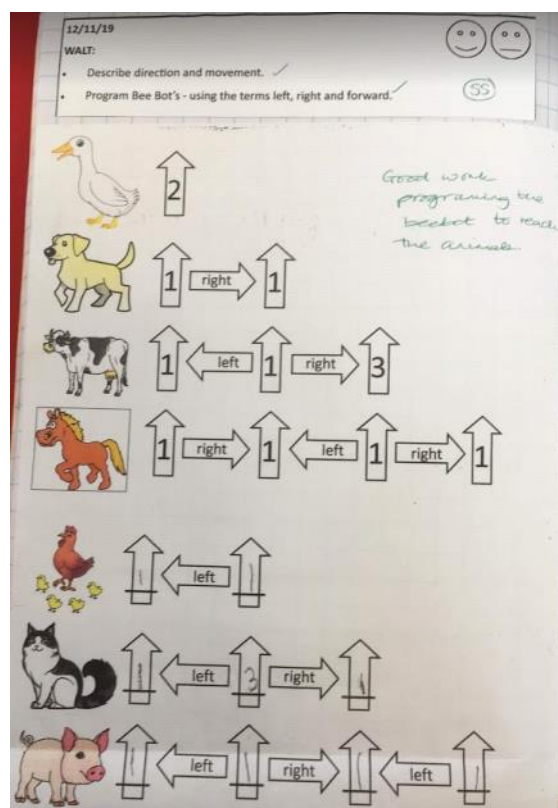


The position maths lesson had literacy deeply embedded in it. The children read, spoke and discussed preposition words. We also used Welsh vocabulary to develop their understanding. Many children had never used some of the words discussed in the lesson and so it developed pupils' literacy skills of reading and oracy in this maths lesson.

Time	Activities/ Methodology/Key Concepts	Pupil Tasks	Resources
Opening Phase – ENGAGE!	Mickey Mouse needs our help as he has lost Pluto his dog https://www.youtube.com/watch?v=vmIjrYGDfr0 We are learning to describe position and using positional language. Does anyone know what position is? Mickey has lost Pluto and we need to help him find him by describing his position. Play video through and then use the power point to ask questions. e.g. Pluto is <u>on top</u> of the block <u>Blie mae</u> – where is <u>“Blay my Pluto”</u>? <u>Powerpoint</u> created On top of – <u>arr beun</u> Between – <u>ruh oong</u> Opposite – <u>cervverberun</u> Next to – <u>oorrth ermerl</u> In front of – <u>o vlaeun</u> Under – <u>o daun</u> Outside – <u>tee a-cl-aun</u> Inside – <u>tee meooun</u> Behind – <u>tee ol</u> Extra copy of cards stuck on the board.	Assess prior learning by questions from the power point.	Pluto video Pluto power point Position words on the board Pluto stuck to the board to ensure they are engaged and interested in the lesson.

Illustrative Example 3 – Digital Competency

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To develop the children's understanding of direction and movement we programmed the Bee-Bots. The children worked in pairs so that they could discuss instructions such as: left, right and forward continuously throughout the lesson.

By programming the Bee-Bots they could practically apply the language and see the result of it. There was also no fear of failure, if the wrong direction was programmed the Bee-Bot simply didn't reach its destination and the reason for this could be discussed and the programming could be amended accordingly.

The use of the Bee-Bot created live feedback and introduced the children to computer programming. The cross curricular element of this lesson made for a very rewarding and interactive one.

Date	Tuesday 12 th November 2019
Student-teacher	Mrs Forester
Class	Year 1 <u>Tavernspite</u> School
AoLE or Subject	Maths
Lesson focus	Direction, movement and making turns
Meaningful Links to curriculum	Foundation Phase Framework - make whole turns and half turns. - describe position, direction and movement
Four Core Purposes	
Meaningful Links to cross curricular responsibilities	ICT – Programming Program a device(Beebot) in order to achieve an outcome. <u>Oracy</u> – contribute to conversations and taking turns PD – direction of travel
Personal Targets (Linked to QTS, identified in weekly review)	The use of incidental welsh

Learning Objectives (WALT)	Use direction instructions including turn left, turn right and forward.
Success Criteria (WILF)	- read the direction instructions - direct the bee bot to the correct animal - be able to describe direction to their partner
Assessment of Pupils' Learning	- ability to be able to describe direction - to transfer picture instruction, to oral instruction, to physical instruction of the <u>beebot</u>

Critical Reflection

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A written critical reflection of your progress in planning and implementing the pedagogical principles, with recommendations for ensuring further progress.

PTE 1, Part 1 took place in a small rural primary school of 220 pupils, located in South West Wales. The lessons used throughout this essay were taught to a class of 29 pupils in the Foundation Phase setting of Year 1. The majority of pupils were 5 years of age with a few being 6 years old. This essay will focus on the implementation of three of Donaldson's (2015, p.67-68) twelve pedagogical principles. The pedagogical principles chosen are:

- 5. Good teaching and learning sets tasks and selects resources that build on previous knowledge and experience and engage interest;
- 7. Good teaching and learning means employing Assessment for Learning principles;
- 9. Good teaching and learning regularly reinforces Cross-Curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them.

These principles have been chosen for this study due to their importance within Foundation Phase learning, specifically in the maths curriculum, which made up the majority of the planned and taught lessons during PTE1, Part 1. This essay will address each principle in turn looking firstly at the theory behind the principle and then how the principle has been used within the student teachers' lessons.

Based on the constructivist view, Pedagogical Principle 5 - Good teaching and learning sets tasks and selects resources that build on previous knowledge and experience and engage interest - encourages learners to construct or create their own learning by linking what they are taught (new information) with what they have previously learnt (prior knowledge) (Elliot et al., 2000).

Many theorists agree with this constructivist belief of developing learning. Ausubel (1968) cited in Hattie and Yates (2014, p.114) was of the opinion that prior knowledge was influential in the learning of a pupil and Howard-Jones et al. (2018) talks of the importance in recalling the pupils' prior knowledge before they are given new knowledge. The technique of accessing prior knowledge is beneficial in two ways. It allows the student to engage with the lesson instantly as the teacher enables them to be involved with the learning from the outset, requiring the pupils to recall previous knowledge, and this creates the platform from which the new learning can be built (Elliot et al. 2000).

If the learner does not have the opportunity to construct and attach new learning onto their prior knowledge it is believed that it can be easily lost or forgotten (Lamon 2019). In short new learning needs to attach itself to something in order for it to stay there. Rather like the way in which paint (new learning) applied directly onto a smooth surface will quickly wear away, where as if sandpaper (prior knowledge) has first been used the paint (new learning) will last much longer. By not accessing a pupil's prior knowledge teachers are treating pupils as objects rather than humans with ideas and opinions. Freire (1970) referred to this as the "banking concept" where pupils are not meant to contribute to the lesson but instead should just absorb information.

Looking at a standard lesson plan, activation of prior knowledge is a constructive way of

creating an engaging and interactive introduction to the main body of the lesson. The pupils can brainstorm their knowledge, once collated this can provide the base for a class or group discussion, forming new learning. This process develops learning as it allows exploration of the pupils' reasoning (Tay, 2018) which allows the teacher time to gauge the level of the pupils' understanding and any misconceptions. I used this technique when I introduced the series of lessons on the topic of money. Each child was given a coin and they turned to their partner and discussed everything that they new about the coin in their hand. This activity engaged the children and activated their memory. It also allowed all children to explore their knowledge rather than just a few that might speak in a whole class discussion. I found it to be very effective and I will use this method of accessing prior knowledge in the Year 6 lessons that I will be planning and teaching in PTE1 Part 2.

Blackburn (2017) offers a variety of techniques to both engage students and access their prior knowledge. The K-W-L (Know, Want to know, Learnt) chart is a good technique for both accessing prior knowledge and providing formative assessment. When children develop their understanding, they can add this learning to the L (Learnt) column. Blackburn (2017) goes on to say that by extracting pupils' prior knowledge, the teacher can gauge their pupils level of understanding and modify the lesson accordingly. Lesson adaptation means that the lesson is more likely to match the learning needs of the pupils. It is also more likely to engage the pupils as the teacher stimulates their interest in the subject by celebrating what they already know.

I have used activation of prior knowledge regularly through my lessons. This was particularly important as the majority of my lessons were in maths and the skills and syllabus is based on developing the pupils' knowledge. Each lesson either builds on the previous day's learning or links to a topic that has been introduced in a previous year or term. Specifically, I have highlighted this in practice when teaching subtraction from 6 and 10 (Prior Knowledge - Illustrative Example 1) The lesson drew on the children's understanding of both subtraction and the bonds that make 6 and 10. They were able to see that if $3 + 3 = 6$ then $6 - 3 = 3$. The lesson further engaged their interest by having a physical element of playing skittles. The pupils enjoyed the process of knocking down the pins, counting them and recording the remaining pins. To develop this further I could have used the "If I know, then I know" technique whereby the children can use their bond knowledge to work out sums of tens numbers so if I know $10 - 3 = 7$, then I know that $100 - 30 = 70$. In PTE 1, Part 2 I will use this "if I know, then I know" as it is good way in which to apply prior knowledge and implementing AfL.

Black and Wiliam's (1998) formative assessment is at the core of Pedagogical Principle 7, Good teaching and learning means employing assessment for learning principles. Black and Wiliam (1998) explain how the dialogue between teachers and students to gauge teaching and learning, formative assessment, was at the core of effective teaching. This discussion and understanding between teacher and pupil allow for modification of the lesson by the teacher to create a better learning environment for the pupil.

The Broadfoot et al (1999) have found that many teachers erroneously implement AfL or formative assessment. Mini summative assessments do not provide the outcome required from formative assessment. When marked they provide the teacher with a grade that shows the level of learning and understanding of their pupils. However, this does not aid the pupil with forward progression in their learning - and this is the key point here - formative assessment is designed to help students' learning. Black et al (2011, p.112) describes formative assessment as a process that provides information about learning for both the teacher and pupil. For the pupil it is a tool that can motivate and improve their performance and for the teacher it guides them on how to develop and modify their lessons Dodge (2009).

For affective AfL it is of paramount importance that pupils are aware of the learning intention and success criteria. This is because at the heart of efficient AfL is allowing pupils to "manage their own learning" (Gardner, 2009). If the pupil is aware of what is expected and all feedback from the teacher aids them in their attainment of the success criteria, the child is more likely to be successful in their work as they know what is expected and they are able to see for themselves whether they have achieved the success criteria. To ensure this is the case in my lessons the learning objective, WALT (We Are Learning To) and success criteria, WILF (What

I'm Looking For) is referred to verbally throughout the lesson. The success criteria may be written on the board and the learning objective is always printed and stuck into the pupil's books. The success criteria are not printed for Year 1 pupils due to their limited vocabulary and it is therefore more effectively communicated verbally.

Live marking is a good way of implementing AfL and ensuring feedback is linked to the learning objective and success criteria. It provides instant feedback allowing a teacher to amend the lesson if it becomes evident that the pupils do not understand (Wells, 2018). In the classroom, especially in the maths lessons, I would use live marking, to ensure that all children were on track. If a child had made an error, I would put a green dot next to the sum and discuss with the child the reason for the error and how this could be put right. In a particular maths lesson it became apparent that around half the class had not understood the concept behind the task. Live marking allowed these children to be identified and in the following lesson the class was split and the concept was revisited with the pupils that required it (Assessment for Learning – Illustrative Example 1).

The effective implementation of Assessment for Learning Principles requires the pupil to have Dweck's (2012) Growth Mindset. Without this positive attitude to learning the pupil will struggle to benefit from the feedback that they receive from the teacher as part of formative assessment. A pupil with a fixed mindset will believe that it is their ability that allowed them to achieve, whereas a pupil with a growth mindset will believe that the outcome is a reward for their effort. Therefore, a pupil that makes an effort is more likely to achieve the learning outcome (Gardner, 2009). The ability to self-assess is a key part in having a Growth Mindset (Dweck, 2012). To encourage this with the Year 1 pupils, I used two self-assessment techniques. The most common within the maths lesson was the smiley face. This is a traffic-light style reflection process that occurs when the pupil completes the main task. Next to the WALT (We Are Learning To) are two faces one smiley and one straight. The children can colour these according to how they feel they performed against the WALT. The pupils choose between green for "got it" and yellow/orange for "not quite there yet".

Another technique used is "two stars and a wish": two good things about the work and something that could be improved, linked to the success criteria. Due to the age of the children I implemented this in the plenary, when the class were seated on the carpet. I chose a few pupils to present their work to the class. I encouraged the children to give themselves a star before they chose someone to give them a second star. The pupil then chose another pupil to give them a point for improvement. At this early stage, Year 1, encouraging self- and peer-assessment is important in teaching children the "concept" and they will then develop this through their school career. It also teaches them to use and consider feedback when they are given it, rather than emotionally reacting to it and then not using it constructively to improve their learning (Gardner, 2009). The structure of two stars and a wish also provides a framework for the feedback given, a child that has produced an excellent piece of work will receive a similar amount of feedback to a child who has struggled with the task. Thus, improving self-esteem and encouraging a Growth Mindset (Dweck, 2012).

An area of AfL that I feel I need to improve is allowing the children time to amend or add to their work. I ensure that feedback isn't "too late" by always trying to give it within the lesson. In the case of two stars and a wish feedback is inevitably given at the end of the lesson as this doesn't allow the pupil the opportunity to amend their work accordingly. PTE Part 2 will be in a Year 6 class and here I will ensure that, as the pupils are more mature, they are given the opportunity to amend their work once they have received the feedback.

Two of Donaldson's (2015) pedagogical principles (Numbers 8 and 9) encourage a thematic approach to teaching and learning whereby different areas of the curriculum can be taught together and are connected by a common theme.

This cross curricular approach can be seen in Pedagogical Principle 8 - "Good teaching and learning ranges within and across Areas of Learning and Experience" (Donaldson, 2015). Within this pedagogical principle, Donaldson (2015) states that when links are made between Areas of

Learning and Experience, the likelihood of effective and enjoyable learning is considerably improved. The second Pedagogical Principle is Number 9 – “Good teaching and learning regularly reinforces Cross-curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practise them” (Donaldson, 2015). Donaldson (2015) believes that literacy, numeracy and digital competence should be deeply rooted in the Areas of Learning and Experience and not only taught thematically with other subjects. This is to ensure that primary education produces “well-rounded individuals with strong literacy and numeracy skills and the ability to acquire and deploy digital competences in creative settings” (Donaldson, 2015 p. 88).

The Welsh Government (2019) have accepted Donaldson’s (2015) recommendations and, within their Guide for the 2022 Curriculum, stated that the cross-curricular responsibilities of literacy, numeracy and digital competency are of paramount importance and that it is believed that they should be engrained within the school curriculum and dispersed throughout all lessons. The Welsh Government (2019) say that these three subjects “are essential for learners to be able to participate successfully and confidently in the modern world”.

The study of Key Competences in Europe by Gordon et al. (2009) noted that to embed cross curricular competence within the curriculum was no easy task and required a strong implementation strategy so that teachers support students in the mastery of the competences. Gordon et al. (2009) went on to conclude that within the UK and Wales it was evident that cross curricular guidance for teachers was being implemented and encouraged before 2009. Thus, demonstrating that the ideas of set out by Donaldson (2015) were not completely new concepts, but in fact the Welsh Government was already aware of the need for cross curricular responsibilities and had already included elements of it in the current curriculum.

The lessons discussed in this essay cover all three of the Curriculum for Wales 2022 (Welsh Government 2019) chosen competences. The majority of the lessons taught in the first half of PTE 1 were maths lessons, so it was therefore difficult to evidence numeracy as a cross-curricular responsibility. However, due to PTE 1 being set in the second half of the Autumn Term, a lot of amendments to the timetable had to be made to accommodate rehearsals for the school play. To avoid the loss of lessons in non-core subjects, numeracy was imbedded into the week’s SKIP (Successful Kinesthetic Instruction for Preschoolers) lesson. SKIP is a motor skill intervention programme that specifically focusses on ball skills. In this lesson each exercise required numeracy to complete the task. In their consultation the Welsh Government (2012) says that numeracy is the application of mathematical skills. Hence this lesson required the pupils to apply their curriculum mathematical knowledge to active tasks (Cross-curriculum responsibilities – illustrative example 1). In PTE 1 Part 2, I will endeavour to incorporate numeracy into my lessons as the majority of them will be literacy and science based.

The ‘Ble mae Pluto?’ (Cross-curriculum responsibilities – illustrative example 2) lesson was thematic. The topic for the term was Pets and for this lesson, based on the mathematic curriculum, the scene was set with Mickey Mouse losing his pet dog Pluto. We went into the school playground to look for Pluto and orally discussed preposition words in both English and Welsh. Some of the preposition words were completely new to the children and once all the Plutos had been found they revised and used their new terminology and oracy skills, to work with their peers to discuss prepositions. Dewey et al (2008) says that although reading is a key focus of the curriculum, pupils must be able to apply their literacy skills to cross-curricular areas. Millard and Gaunt (2018) have highlighted the benefits of developing “classroom talk” and oracy skills where children engage verbally. In particular the research suggests there are cognitive gains (Jay et al., 2017), personal and social gains (Hanley P et al., 2015); (Gorard et al., 2015) and Civic engagement and empowerment (Nagda and Gurin, 2007).

Barnes (2015) talks of the six different types of cross-curricular learning; tokenistic, hierarchical, multidisciplinary, interdisciplinary, opportunistic and double focus. The Bee-bot lesson used the hierarchical approach. This approach allows the addition of another subject to enhance the learning in the core subject. In this instance the core subject was mathematics with the learning outcome being to understand left and right. But by the addition of programming a computer, the Bee-bot, the pupils were able to physically see the evidence of their learning which enhanced their learning experience and improved digital competency skills.

In reflection, I have not used Digital Competency often enough within my lessons. I am aware that this is an area that I must ensure is incorporated within my lessons in PTE 1 Part 2. The children in Year 6 will be more au fait with the use of technology so the concerns I had in using it in Year 1 will not be present. With the younger children I was concerned that they would not

actually learn anything as they are not able to log in, rectify any errors etc. However, when planning for Year 6, I will need to ensure that the task is engaging enough to ensure that the pupils remain on task and develop their knowledge.

To develop the implementation of Donaldson's (2015) pedagogical principles throughout PTE 1 Part 2, I will ensure that when lesson planning I include an AfL column that reminds me to consciously use a variety of techniques. I am aware that I have used a limited selection in Year 1 and I will endeavour to use a wider range of AfL techniques from Gershon's (2009) Toolkit in future.

There is a section on the front page of the lesson plan that is entitled "Meaningful Links to cross curricular responsibilities". I now have a better understanding of how this should be used and am able to differentiate between cross-curricular responsibilities and making links between Areas of Learning and Experience. I have created thematic lessons within PTE Part 1, however, they were not particularly frequent, so this will be a target area next term.

I believe that within PTE 1 Part 1 I selected tasks and resources that built on previous knowledge and experience and engaged interest. However, I also am aware that a contributing factor to this was the way the maths curriculum is structured. The guidance the curriculum gives embeds this principle. When teaching in Year 6 I must continue to access prior knowledge in an engaging way and this will support my aim in the better implementation of AfL.

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