

Overview

09 November 2019

12:21

Student Name:	Rachel Bevan
Student Number :	1402018
Assignment Title:	Professional and Pedagogic Studies: Leading the Learning: what, how and why am I teaching?
Pathway:	Primary PGCE
Link to one note:	https://uwotds-my.sharepoint.com/:o:/g/personal/1402018_student_uwotds_ac_uk/Eg4Fv1GdxV1EoaRHOkSumrcBgtYUMrjCGMRcWZoO1SuYUg?e=YLE1VW From < https://ukc-onenote.officeapps.live.com/o/onenoteframe.aspx?ui=en%2DGB&rs=en%2DUS&WOPISrc=https%3A%2F%2Fuowtsd%2Dmy%2Esharepoint%2Ecom%2Fpersonal%2F1402018%5Fstudent%5Fuowtsd%5Fac%5Fuk%2F%5Fvti%5Fbin%2Fwopi%2Eashx%2Ffolders%2F51bf050ec59d445da1a4473a44ae9ab7&wdorigin=Sharepoint%2COFFICECOM%2DWEB%2ESTART%2EMRU&wdEnableRoaming=1&wdFR=1&mssc=1&wdODB=1&hid=cce3279f-80a2-a000-7eec-98588c770f5c >

My targets:-

- ❖ Expand on my points. I have to remember to explain my point.
- ❖ Make my paragraphs larger.
- ❖ Consider points of disagreement within literature.
- ❖ Review the Harvard referencing.

Quality of talk, quality of questions

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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)	Tell the children that Stick Man has gone missing again. Ask them if they can describe what he looks like. Tell the children that we are going to use 'adjectives'. Explain that an adjective is a word to describe something e.g. brown, rough, smooth, long, short...	Children are to think-pair-share their answers to, "How could we tell somebody about Stick Man's eyes, arms, legs etc...". One part of the body at a time for about 30 seconds. Children share their ideas with the class. Write some harder words for a word bank.	White board White board pen Picture of Stick Man Stick Man word mat Adjectives word mat
Teaching & Core Learning	Give the children a format to follow. Support the children in their ideas and writing. Extend their writing by using the connective 'and'. Write the 5 question words on the board: who, what, why, where, when.	Use the children's topic books to write in. Find the next blank page. Write the date in full form. Underline the heading and date. The children use the written format as a layout for their writing. Use the adjective word mat to support writing. Use the question prompts to support their writing.	Whiteboard Whiteboard pen Picture of Stick Man. Adjectives word mat Pencils Books.

With a talking partner, use adjectives to describe Stickman. Can each partner think of describing words to enhance the others' vocabulary.

Use question starters to support writing e.g. Who, what, why...

With a 'random partner' re-tell the story of Stickman.

Use a fishbone diagram to support the structure of your language, e.g. First, next, finally.

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)	Introduce Beebot to the group. Tell the children that they cannot pick Beebot up and move him around, they also cannot drag him backwards. Show the children how to programme Beebot using the controls on the top. Talk about how to turn Beebot and which direction to move.	To listen to instructions and show that they have understood by answering questions regarding moving Beebot.	Beebot mat Beebot Whiteboard for each pair Whiteboard pen
Teaching & Core Learning	Tell the children that they will be working in pairs and that they will be moving Beebot from his 'Family Tree' to their chosen place on the board. Ask them how they will get him there. Give the children time to work out the movements and directions, support when needed. Write down the childrens chosen movements and directions.	The children, work with another, to choose where they want Beebot to finish. The children work together to find how to get to the finish square. The children relate their directions and movements in number form. They have to follow the coding to move Beebot to the finish square.	Beebot mat Beebot Whiteboard for each pair Whiteboard pen

Success Criteria (clearly linked to each learning objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce - to demonstrate learning)
a) answer more complex questions relating stories. (LLC)	a) To be able to answer open ended questions using a variety of language.
b) listen to others with concentration, understanding the main points and asking for clarification if needed. (LLC)	b) To be able to listen to the questions asked and ask to repeat it if needed.
c) Confidently use all phonemes and their corresponding graphemes when blending and segmenting polysyllabic words. (LLC)	c) To be able to read the question using the skilled learned through 'read-write ink'.
d) read aloud with attention to punctuation, including full stops, question, exclamation and speech marks, varying intonation, voice and pace. (LLC)	d) To be able to use punctuation and intonation.
e) become independent thinkers and learners. (PWS)	e) To be able to support each other with limited support from an adult.
f) form relationships and feel confident to play and work cooperatively. (PWS)	f) To work well and support others.
g) Make themselves understood. (WLS)	g) To be able to speak Welsh to a standard that they can be understood.

The children had to swap their questions with their partner. They had to choose three questions to answer.

The children were given more time to think about the question and the answer. The children wanted to answer with their first thought. I encouraged the children to think about the answer.

I allowed the children to choose their own partner. This did not work so I decided to use lollipop sticks. This worked really well.

Even though the lollipop sticks were sorted into three different colours for the three different groups, I wanted to mix the children so they had a chance to work with someone new with new ideas and language.

I ~~ask~~ introduced the lesson and asked the children to talk with a partner. The children were arguing over who their partner was. I then decided to use the lollipop sticks to partner the children. This worked really well. There was one child who was not happy with this. I then asked the children to go into fours, some of the children were confused and chose to work with their friends as opposed to as their partner. Apart from that, this worked really well. I will use this again. PT

Use and quality of feedback

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I asked the children for feedback on how I could improve the activity in the future. I felt it was imperative for the children to give their point of view as this was their learning.

P represented what they children found positive within the activity and what they could complete.

M represented the minus aspect of the activity. How the children felt I could progress the activity.

I represented what they children found interesting. They children enjoyed finding the clues, also finding Stickman.

<u>P</u>	<u>M</u>	<u>I</u>
<i>Finding Stick Man. Working the clues. Finding the location.</i>	<i>Put Stick Man in a treasure chest. Put clues in a chest. Do the activity the same order as the book. Race to the clues. Work in pairs.</i>	<i>Finding Stick Man under the bench. Finding the clues to find Stick Man.</i>

The children had to first find clues around the school. Then the children, using the key provided, had to change the icons into letters. Furthermore, they had to read the clue to find the next clue and finally locate Stickman.

After the activity was completed, the children were asked their opinion. This was done to evaluate and review the activity from their perspective. They were asked what they enjoyed, what could be improved next time and what they found interesting. This was completed through the PMI diagram objectives.

Fortunately, the children were very vocal on their opinions.

0	1	2	3	4	5	6	7	8	9	10

Right arm

	+		=		+	

Left arm

	+		=		+	

Right leg

	+		=		+	

Left leg

	+		=		+	

Body

	+		=		+	

Using the feedback, I decided to create an enhanced provision using the skills learnt during the treasure hunt activity and the maths focus task from the previous week. I knew that the enhanced provision should build upon previous learning and to embed the knowledge.

I also decided to get different size boxes and hide parts of Stickman's body in each box. This was based on what the children asked for.

The children had to use the key provided to work out the numbers. This was the first part of the activity. The second was to find the missing number, they did this by working out what the two number added up to them finding the equivalent value on the other side. Next they had to work out the missing symbol. After that, the children had to find the boxes in order to collect all the parts of Stickman's body. Finally, the children were required to build Stickman in their challenge book.

Each body part had a different number. Following from the children's feedback, I decided to use boxes for each body part. The boxes I chose were wooden and had a lid attached to the box via a hinge. I thought the children would have enjoyed lifting up the lid of the box.

Right Arm 5

Left arm 2

Right leg 1

Left leg 4

Body 3

Peer and self-assessment

09 December 2019 10:10

Week beg: 18/11/19 Name: _____

L.O.: To use numeracy skills to create a Stickman family.

Activity Description: Can the children subtract 10 or 20 from a given number. Can the children use standard units to measure? The children have to make a Stickman using a ruler to measure the correct length in playdough. Can the children use a variety of materials and tools for experimentation and problem solving?

Adult comment:

I know subtraction facts	B	D	A
I can measure	B	D	A

I used Numicon Number line Hundred square

I understand I had some help to understand I found this tricky

The _____ helped me the most.

The children were read the success criteria and had to assess if they had achieved this.

Another aspect of this assessment was to state what concrete resource they used. This resource helped them during the problem solving activity, the resource was differentiated according to ability.

The children had to assess whether they understood or found the activity tricky. They had to colour in which thumb was relevant. They had completed this type of feedback before so I was aware that they knew which thumb to colour.

The thumbs up sheet was an extension to the activity, to record the children's physical measurement of Stickman and other characters.

Plenary	Using the Dojo randoms ask subtraction sums relevant to their level of development. Show the children the thumbs up sheet.	Esteddwydych ar yr carpet. Children to fill in the thumbs up sheet.	Whiteboard Dojo app Thumbs up sheet pencil
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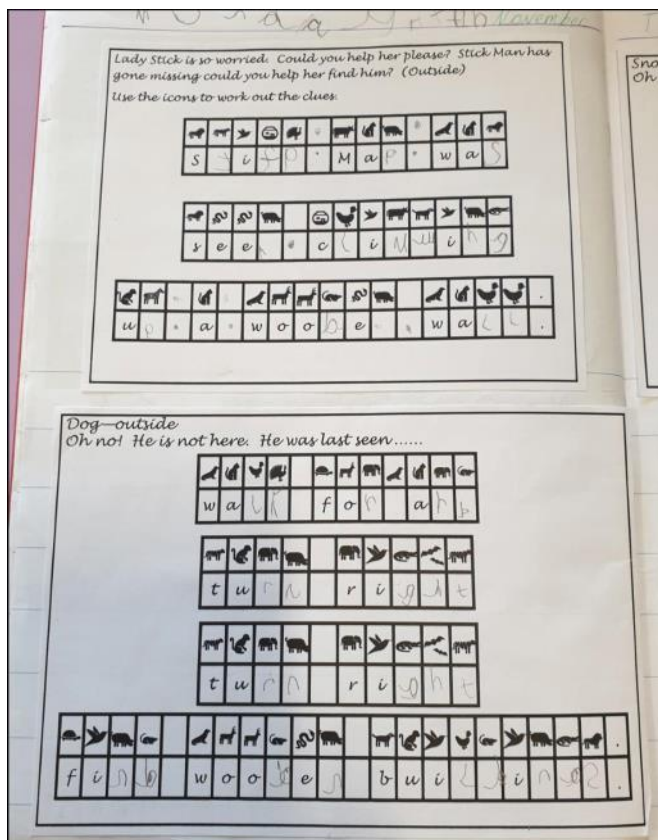
Literacy

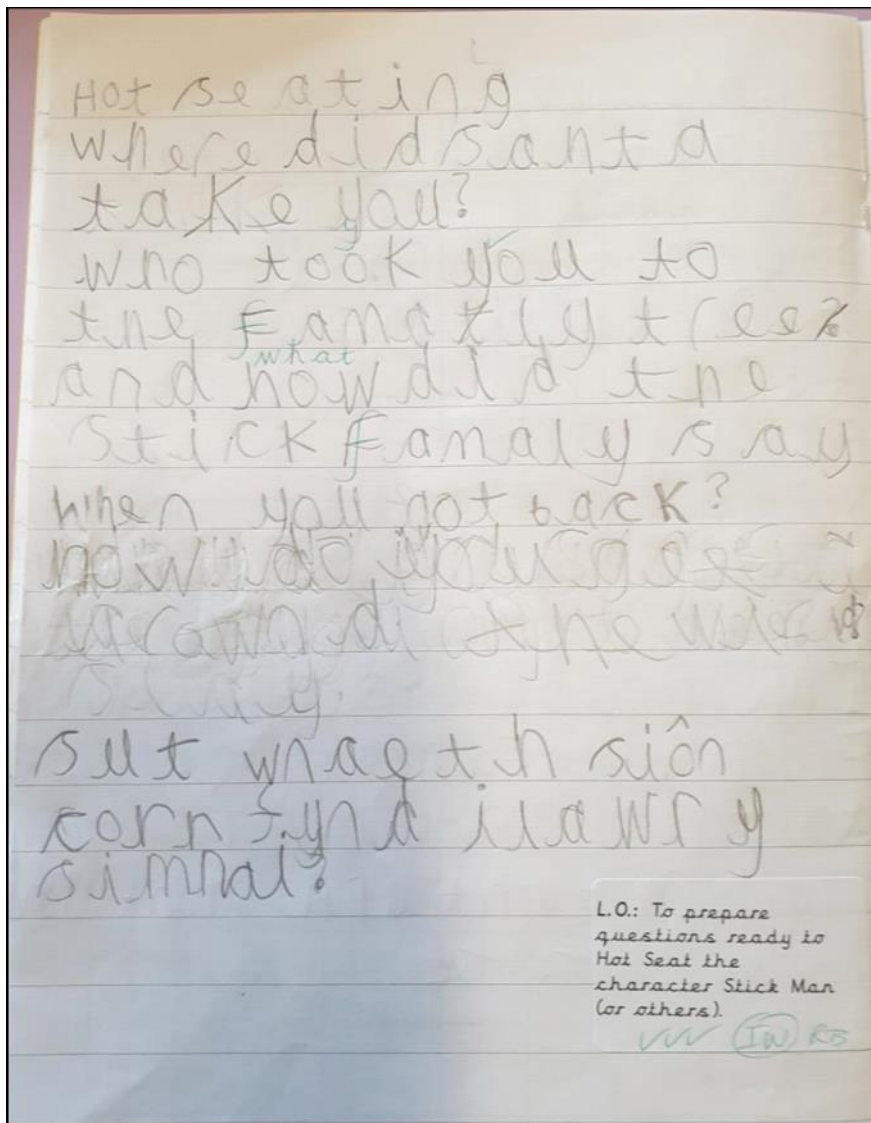
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Within the medium term planning meeting it was decided that I should complete a treasure hunt activity with the children. The aim of the activity was to find Stickman. The class teacher wanted to incorporate Information Communication Technology (ICT) within the lesson; she also suggested that I use an application called HP Reveal. After planning the activity I discovered that the application was not on the i-pads. I then sought how to install the application to no avail. I was firm in my decision that I was going to complete the lesson but not use the HP Reveal app.

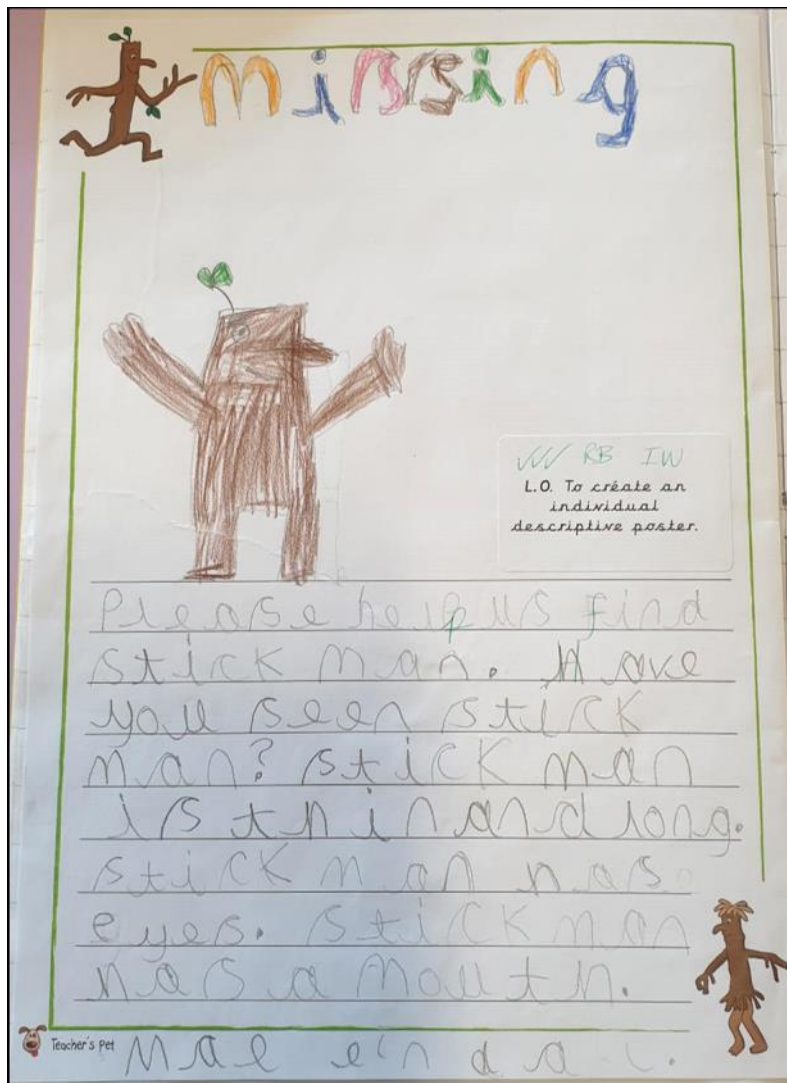
I then thought about how I would get the children to carry out a treasure hunt and find clues. I did not want the children to just find the clues and read them. That is when I decided that I would get the children to change icons into letters. The children would then have to read the words to find the next clue.

This was the first time I had created an activity such as this. I found it very hard even though I was elated that I was able to think and create an activity like this within a short time.





The children used the AFL assessment tool 'think-pair-share' to think of questions that they wanted to ask Stickman. The children were able to collaborate with another child.



The children used adjectives to describe Stickman's features. They were encouraged to think of their letter formation and spelling strategies, especially skills learnt from 'Read-Write-Ink'.

Numeracy

09 December 2019 17:13

Stickman measuring

Stickman is 22cm tall.

Stick lady is 3 cm shorter than Stickman.
How long is Stick Lady? 19 cm

A Stick child is 10 cm shorter than Stickman.
How long is a Stick child? 12 cm

The cat is 27cm tall. How much shorter is Stickman? 5 cm

The dog is 30cm tall. How much shorter is Stickman? 8 cm

L.O. To be able to use the skills of subtraction to answer the question.
20/11/19

The children had to read the number sentences and work out the length of the character using addition or subtraction. The children were encouraged to use conceptual maths through number lines or 100 squares. If the children found this difficult they were offered concrete resources such as Numicon.

Week beg: 18/11/19 Name: _____

L.O.: To use numeracy skills to create a Stickman family.

Activity Description: Can the children subtract 10 or 20 from a given number. Can the children use standard units to measure? The children have to make a Stickman using a ruler to measure the correct length in playdough. Can the children use a variety of materials and tools for experimentation and problem solving?

Adult comment:

I know subtraction facts	B	D	A
I can measure	B	D	A

I used Numicon Number line Hundred square



I understand



I had some help to understand



I found this tricky

The _____ helped me the most.

The children then had to make the length of the characters using a ruler and playdough. They had to use standard measures.

They assess their understanding by colouring in the thumb which was most relevant, for example here a child has coloured that they understood the task.

The child had also recorded that they used a number line to help them work out the equations.

Digital Competency Framework (DCF)

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0	1	2	3	4	5	6	7	8	9	10
<i>Right arm</i>										
		+			=				+	
<i>Left arm</i>										
		+			=				+	
<i>Right leg</i>										
		+			=				+	
<i>Left leg</i>										
		+			=				+	
<i>Body</i>										
		+			=				+	

The children had to first work out the missing numbers under the symbols. Next they had to work out the sum. After that they had to find the missing number and corresponding symbol. Finally they had to find the box with the correct symbol.

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)	Introduce Beebot to the group. Tell the children that they cannot pick Beebot up and move him around, they also cannot drag him backwards. Show the children how to programme Beebot using the controls on the top. Talk about how to turn Beebot and which direction to move.	To listen to instructions and show that they have understood by answering questions regarding moving Beebot.	Beebot mat Beebot Whiteboard for each pair Whiteboard pen
Teaching & Core Learning	Tell the children that they will be working in pairs and that they will be moving Beebot from his 'Family Tree' to their chosen place on the board. Ask them how they will get him there. Give the children time to work out the movements and directions, support when needed. Write down the childrens chosen movements and directions.	The children, work with another, to choose where they want Beebot to finish.. The children work together to find how to get to the finish square. The children relate their directions and movements in number form. They have to follow the coding to move Beebot to the finish square.	Beebot mat Beebot Whiteboard for each pair Whiteboard pen

The children had to re-tell the story of Stickman using the Beebot, characters from the story and sequence words, for example first, next, finally.
Would the children be able to create a sequence to programme Beebot?
Could the children write the sequence down?

Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) Create and edit multimedia components in order	a) the children create an animated story of

to develop text, image, sound, animation and video for a range of tasks. (DCF) b) Experiment with different formats and layouts on-screen, using the facility to move text and pictures around easily. (LLC/LNF) c) use standard forms of verbs, e.g. see/saw, go/went, and subject-verb agreement, e.g. I was/we were. (LLCLNF) d) communicate by using symbols, pictures, words, phrases and short sentences. (WLD) e) using and becoming familiar with common words and phrases for their world. (LUW)	the Stick Man. They save it using the icon. b) Can the children move and change the placement of characters on the screen. c) Type the action of the character, e.g. picked up, jogged, flew. Differentiated for different ability. d) Use the word mat with welsh words to add the name of one character or object to each slide. e) The children learn to use geographical words and phrases in a sentence.

The children used the programme 'animate' to create a an animated version of Stickman. They were able to drag and drop images into their work. Some were able to write words such as 'help' and 'I am Stickman'.

Problem Solving

09 December 2019 10:07

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

Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) extract and interpret information (M&N) b) Predict the outcome of simple sequences of instructions (DCF)	a) Are the children able to change the logos into sentences? b) are the children able to work out simple coding?

- ❖ Would the children be able to understand the task of matching the icons with an individual letter of the alphabet?
- ❖ Would the children be able to insert the correct icon into the correct space?
- ❖ Would the children be able to read the instructions?

Reflective Analysis of Teaching and Strategies For Development – including justification/rationale for pedagogical choices	
Evidence of my Effective Practice	I gave the children one minute to find a partner and talk about the what objects would sink. The children spent more time finding a partner than talking about the task. I stopped the children and used the lolli-pop sticks to pair children together. Some of the children were not happy with their partner, but as they knew it was a fair process they completed the task.
Areas for my Development	Use the lolli-pop sticks more often.
Personal Targets for Progress	

The problem in this situation was mine. I informed the children that they would need a partner to discuss if the items shown them would sink or float. Some of the children paired up with a partner, other children argued over who their partner should be. I could see that this conflict would create a negative effect on the lesson. As I wanted all children to have positive well-being and experience I stopped the lesson. I used the lollipop sticks that I had prepared previously. After I had partnered the children with another, they seemed more settled and able to concentrate on the task.

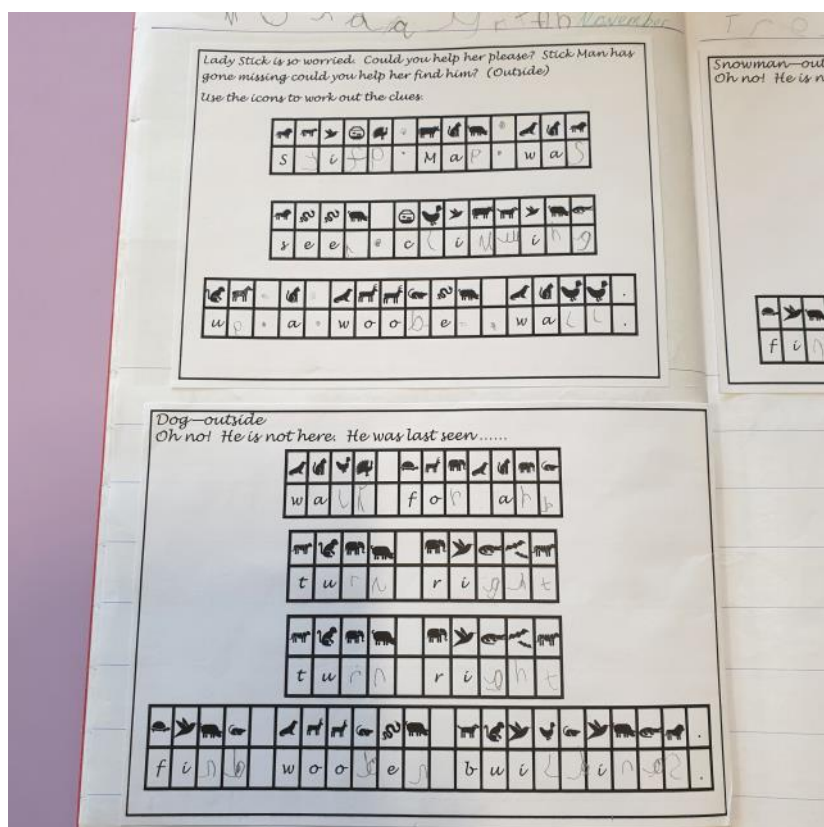
When the children sat down to complete the activity I was pleasantly surprised at how well the 'think-pair-share' had worked. I would definitely use lollipop sticks again.

Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) Mentally subtract 10 or 20 from a given number up to 100. b) use standard units to measure: – length, height and distance: metres, half metres or centimetres. c) use a variety of materials and tools for experimentation and problem solving.	a) can the children subtract 10? b) The children have to make a Stick Man using a ruler to measure the correct length in playdough. c) The children have to problem solve with the ruler and playdough to find the correct measurement.

The children had to use the problem solving skills to decide whether to subtract or add. They had to work out the sums to find out the length of the Stickman character. Most of the children were able to complete this using conceptual resources, the lower ability needed concrete resources such as 'Numicon'.

Creative Thinking

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The children had to think creatively in order to change the icons into letters. They were given a key of which letter matched with a specific icon. The children then had to read the words, some with support, to find the Stickman character.

Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) Re-tell narratives or information that they have heard, sequencing events correctly, (time connectives). (LLC)	Use connectives such as first, next and finally to re-tell the Stick Man story.
b) Share activities and information to complete a task. (LLC)	Work with another and take turns to programme Beebot.
c) Recognise half and quarter turns. (M&N)	To know how many times to turn Beebot around to face the correct way.
d) Use mathematical vocabulary to describe position, direction and movement. (M&N)	To work out how many squares and which direct Beebot will need to move.
e) Form relationships and feel confident to plan and work cooperatively. (H&WB)	Be able to work with others, value their opinions.
f) Show that they have understood basic instructions. (DCF)	To be able to move Beebot around a mat by reading basic coding.

1) Show that they have understood basic instructions. (DCF)	To be able to move Beebot around a mat by reading basic coding.
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The children had to think creatively so they could move Beebot around a Beebot mat. They had to work with another child to investigate how to programme the robot.

Critical Thinking

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Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) Thinking about what happens if.....	a) Predict if an object would float or sink when placed in water.
b) Sorting and grouping information.	b) Can the children sort the objects according to one criteria (float or sink).
c) use context to perceive the meaning of familiar words and decode new words by means of clues in pictures, letter sounds and word forms (WLD).	c) Are the children able to say or write the objects are in welsh.
d) Spell high-frequency words correctly.	d) Are the children able to spell high frequency words to their development level.
e) use simple subject-related words appropriately.	e) Use words related to floating and sinking.

The children were required to use their prior knowledge to record what items they thought would float or sink.

The higher ability children were able to complete this through talking with their peers. The lower ability children needed support with their predictions. Most of the children were afraid of making mistakes. I reassured the children that their answers were based upon their understanding.

Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
a) Mentally subtract 10 or 20 from a given number up to 100.	a) can the children subtract 10?
b) use standard units to measure: – length, height and distance: metres, half metres or centimetres.	b) The children have to make a Stick Man using a ruler to measure the correct length in playdough.
c) use a variety of materials and tools for experimentation and problem solving.	c) The children have to problem solve with the ruler and playdough to find the correct measurement.

Most of the children were able to use a standard measure to create a playdough worm the identical length as the characters in Stickman. Some children needed non-standard measures such as Multi-link blocks.

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)	(no more than 10 mins) 1. Show the objects to the children. 2. Tell the children that they will be putting the objects in the water. 3. They will have to investigate whether they float and sink. 4. Remind the children of their task on floating and sinking sorting.	Children view the objects Remember prior knowledge	12 objects Ball Bottle Marbles paper
Teaching & Core	1. Split each group in half. 2. Allow each child to choose two objects(2 mins)	Children go into two groups Choose two objects each, if they do	water 12 objects

Learning	3. Each child takes it in turns to drop one object into the water at a time.(10 mins) 4. The children discuss their findings 5. The children fill out the thumbs up form using the evaluation on their predictions- I thought the would have sunk because	not choose quickly an object will be chosen for them. Children discuss with peers for 1 minute per person. Support given to fill out the thumbs up sheet.	Ball Bottle Marbles paper
Plenary	(10 mins) Gather the children on the carpet. Ask the children what happened to their predictions. Were they correct? Did any object surprise them? Quiet hands up	The children share their ideas. The children share their predictions. The children learn what they will be doing next lesson.	

The children had to work with others during an investigation. They had to review their predictions, (if objects would float or sink), then carry out the task and state whether they were correct or not.

Critical Reflection

09 December 2019 10:09

Module ECAD6008

Professional and Pedagogic Studies: Leading the Learning: what, how and why am I teaching?

The school is on the outskirts of a busy city centre. Unfortunately, it has a high number of children with a deprivation grant due to the higher level of unemployment and free school meals (FSM), which is 12% over the national average of 18% and 10% increase than local authority. (B, 2019). Studies have shown that areas of higher deprivation have lower levels of education. Gross disagrees with this and writes that “deprivation does not have an impact on learning” (Gross, 2010). Gross continues that the lower levels of learning are a result of teaching. Statistics gathered from the school show that deprived areas are more likely to have children with lower levels of education. The school has an elevated amount of children on school action 17% than more the national average (14%) but it is on par with the local authority (B, 2019). This contrasts with Gross’ view as the whole local authority do not employ bad teachers, rather the level of deprivation within the authority is a factor.

Donaldson (2015) aims to promote good teaching through twelve pedagogical principles. Within this assignment I will look at three principles. These are 1) problem solving, creative and critical thinking; 2) assessment for learning and 3) cross curricular learning. I will analyse each of these for the impact in development for learners, how I implemented these in my teaching and evaluate my teaching.

Within my teaching I had to remember “the social and psychological factors that influence learning” (Donaldson, 2015). Have the children had breakfast? Did the children sleep the night before? Do the children have any anxiety that could hinder their thought processes? During the morning routine the children participated in check-in. The children could say if they had any issues that they needed support with.

Obviously, when planning Teachers have to take all of this into consideration. The needs of the More Able and Talented (MAT) pupils have to be respected and included. Any lesson plans have to be differentiated to include the development level, needs of all children, a knowledge of understanding and how well they think (Sutton trust 2014)

Employing a blend of approaches

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

In order to support children in acquiring new skills and understanding, we first have to know their mental level (Hattie, 2012). To do this ‘Shayer recommends that teachers talk and listen to learners, consider their responses in order to collaborate with their learning’ (Hattie, 2012). The teacher can use the information gathered to find out the children’s level of thinking. The information gathered gives the teacher a next step target for the children. These targets are inserted into the lesson plans.

This is in contrast to Piaget’s belief that children progress through ‘different stages’

(Pound, 2006), which stage a child is in depends upon their age. Piaget believed that younger children, (two to seven year olds (Grigg, 2015)) tend to focus more on self and are 'egocentric' (Grigg, 2015) in their thinking. Whereas, older children, (seven to eleven (Grigg, 2015)) are able to 'listen to and consider others' ideas' (Grigg, 2015). During the younger age this could have a negative impact on critical thinking as the children are less likely to contemplate the views of others. The Welsh Government aims for children to grow in their critical thinking skills through the development of 'planning, developing and reflecting on their own learning' (WAG, 2015). Children can analyse their learning through strategies such as KWL grids within Assessment for Learning. KWL grids allow children to acknowledge what they know, think critically about what they want to learn and record their progress of learning.

Van den Broek quotes Brown's theory of 'teachers developing each child's zone of proximal development (van den Broek, 2012)'. This can be advanced through a range of strategies. Two promising strategies are 'communal sharing and team-work (van den Broek, 2012)'. These two approaches sound the same but in fact team-work can only work when all members of the team are willing to cooperate.

Vygotsky's zone of proximal development and critical thinking skills are developed by using questions to encourage children to think about what they are learning. Through using open ended questions 'children are forced to think (Tan, 2017)'. Questioning and thinking strategies are advanced when children work together and cooperate in answering the question or problem (Tan, 2017).

Factors which challenge the development of children's learning need to be considered; this is their well-being. Children need to promote, present, preserve and protect their sense of self (Hattie, 2012). If they have this sense of self then they are able to be, 'confident individuals who can overcome challenges and manage risks' (Donaldson, 2015). Teachers need to be aware of the factors that reduce the child's sense of self or self-esteem. Factors such as neglect, abuse such as mental, physical and emotional can decrease the effective level of thinking. It has been recorded that '10% of children have been diagnosed with mental health problems (Grigg, 2015)'. Grigg (2015) continues that these factors can 'hinder learning of the child'. If a child is focussed on what happened before school, after school or even during school, such as bullying, the child's focus is elsewhere and they are unable to think or process the information before them. Therefore, they are unable to think critically. Fortunately, most schools offer support through 'multisensory rooms and specialist therapists (Grigg, 2015). This facility gives the children the assistance to explore their problems in a safe environment.

Assessment for learning

Good teaching and learning means employing assessment for learning principles.

There are two types of assessment; summative and formative. Summative assessment is carried out at the end of learning, an example of this is General Certificate of Secondary Education (GCSE). Alternatively, formative assessment is carried out while learning takes place. Formative assessment is also known as Assessment for Learning (AFL).

Assessment for learning (AFL) is an important tool within the classroom. It gives 'physical evidence of learning and allows the children to have a voice on their learning journey,' (Heritage, 2018) and enhance 'oracy skills' (Estyn, 2018). This is illustrated through strategies such as peer or self-assessment, feedback or think-pair-share. Children are given a starting point which builds upon their prior learning from observations or marked work from peers or teachers. This is then transferred to an individual target and written into lesson plans as success criteria. These targets are

observed during marking to discover if the learner has been successful. The success criteria is given to the learner pre activity, feedback is post activity.

The first section of my Personal Teaching Practice (PTE) gave me the opportunity to assess the children's prior knowledge. During this period, I was able to view their books, ask relevant questions and support the children during their learning. Theorists such as Dewey, Piaget and Hattie believed that teachers need to know the level of understanding of the children. (Pound, 2006) (Hattie, 2012). I would need this knowledge to gauge my teaching style, language and skills I would teach the children. Obviously, without this knowledge I would not know the level of ability within the class and the cognition I needed to develop.

I had to ensure that the children were being challenged. To do this I referred to the Foundation Phase Framework. This document refers to the current curriculum being taught to the children. I was particularly interested in the Literacy and Numeracy Framework and the outcomes. These gave me the relevant level of development of the children. If the lesson was too hard it could have a negative effect on the confidence and behaviour of the children. On the other hand, if the lesson was too easy the children could get bored, not value the learning taking place and again have a negative effect on the children.

Within a practical lesson I decided to use one of the schools AFL strategies. This was a thumbs up sheet where the learners record their self-assessment by colouring in one of three hands. The first is a thumb up, where the learner had understood the task. The second a thumb to the side where the learner found it tricky and the last is a thumb down where the learner did not understand. The children had to calculate the length of the characters in the Stickman book through mathematical sentences given to them, using addition or subtraction. Once they had the measurements the children had to make the correct length using a ruler. As there was not any evidence for the measuring activity, the thumbs up sheet was used and glued into their topic books.

Cross curricular

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

Within his document, Donaldson (2015, p.68), states that, 'literacy, numeracy and digital competence should be embedded within all areas of the curriculum. To state the obvious, literacy is used within mathematics using language or reading the signs, symbols and words. In fact, literacy is ingrained in all areas of the curriculum through writing about historical facts, geographical features or describing if an experiment worked. Unfortunately, this only applies if the children can read and write. Gross (2010) states that, '25% of children who leave primary school are unable to read or write proficiently'. This questions that if children cannot read how do they know what they are writing? Teachers ask children to write in books for evidence, what evidence could be provided from the children who cannot read? Fortunately, Donaldson (2015) adds that the focus on cross curricular subjects should be, 'natural and authentic'. This indicates that phonetical knowledge should be used throughout all areas of the curriculum, also children should use the literacy and 'syntax' as second nature. Concluding that even though children use literacy through all areas of the curriculum, children could target specific areas of literacy within their writing; for example, full stops or spelling. It was the policy of the school for teachers or teaching assistants to surround spelling mistakes with a box then write the correct spelling below the work. The children would then have to write the words spelt correctly a few times as a strategy.

Within my lesson I used a blend of strategies including phonetic knowledge. The children had to use their knowledge of graphemes, diagraphs and blending to decipher

each word. The words were put together to make a sentence. I had not considered the reading level of the children. Some children found it difficult to read the words, therefore, the less able children had more support.

Mathematics is another subject where the foundations need to be secure before introducing it to other subjects. Obviously, mathematics is an integral component of experiments. According to Dubinsky 'Piaget's theory of action, process, object and schema (APOS) allows children to process information through thinking skills and problem solving' (Dubinsky, 2014). Children could use skills such as time, measurement and data collection, for example children could complete outcomes as: 'calculate start and finish times using 30 or 15 minute intervals (WAG, 2016)'.

"There is a demand for young people with improved levels of literacy, numeracy and wider skills, including critical thinking, creativity and problem solving, to the development of, a traditional subject or 'area of learning' approach."

(Donaldson, 2015, p. 7)

We live in a world where academic subjects are mixed all of the time. We think in a mixed academic way, so it makes sense to teach children through a cross-curricular approach. Unless we ensure that children have a secure knowledge of literacy and mathematics they are unable to fully utilise these skills.

Within the school, a teacher wanted to incorporate an application in to the lesson; unfortunately, the it was not installed on the i-pad. Attempts had been made by staff members and myself to install the application, but this was not possible. I told the class teacher that due to the technological restrictions I could not use the iPad to lead the lesson, but I could use it to take photographs and evidence the lesson. Considering the lesson was linked to Science and Technology I had to plan a lesson with some form of Information Communication Technology (ICT). The best fit at the time was coding. I consulted the Digital Competency Framework (DCF) and the document reaffirmed this. As the lesson was a treasure hunt it needed to include literacy, geography and mathematics. The class teacher wanted to include directions as well as reading.

I had not done anything like this before, so I had to investigate how to get the children to translate icons into letters. Fortunately, I am very good at ICT so I was able to find a way inserting icons into a document. I was able to complete the task with success as I have used this strategy again and will do so in the future.

During a different activity the children had to re-tell the story of Stickman using a Beebot mat, Beebot, pictures from the story and sequence words such as: first, next, later and finally. The children had to predict how many times they would have to press forward or turn to get to the next part of the story. They had to record this on a white board. As this was the first time they had done this type of activity I wrote their predictions down and they followed them accurately (WAG, 2019) to find out if their predictions were correct. The children discussed the movements with their peer and took turns to control the Beebot. They were able to assess their strategy and change it if needed. The only problem was the recording of the instructions. I should have made directional cards that they could stick onto a length of paper to visualise their instructions. This is something that I will prepare for in the future.

Feedback

I wanted the children's feedback on the activity so I asked questions to discover if they enjoyed it, learnt from it and if they would alter any aspect of it. I wanted to assess whether the lesson has a positive effect on the children's attitude to learning new skills, also if they wanted to do this sort of activity again (Donaldson, 2015). This is in-line with the idea that AFL can be "self-regulating increasing the motivation, metacognitive and a

behaviourally active agent” (Heritage, 2018) in my progress as a student teacher.

I wanted to know what the children would enjoy and how they would enhance the activity. Fortunately, the feedback I received from the children was purposeful, practical and productive. The children wanted to participate in another treasure hunt. The next time they wanted to find boxes. The subsequent week when I decided which enhanced provision to provide for the children, I set up a similar coding system. As the children had requested this type of activity I thought it would be more ‘meaningful and encourage their disposition to learn (WAG, 2008)’. This time the children had to find the corresponding number to the weather symbol building upon prior knowledge of what they had learned the previous week. There were five boxes to find in total. The children could have just gone to each box and taken the body part of Stickman out and built him in their challenge books. Instead, the children chose to work out the clues and find the boxes in order.

During the introduction, I decided to use the ‘random partners’ strategy within a floating and sinking prediction and sorting activity. The positive aspect of this AFL strategy is that people have different ‘ideas and beliefs’ (McGregor, 2007), this could help reaffirm opinions to fact and scaffold the learners’ knowledge.

I asked the children to find a partner and talk for one minute on which object would float and which object would sink, out of twelve different objects. The children spent more time finding a partner than completing the task. I stopped the task and decided that I would use lollipop sticks to do talking partners as I felt their anxiety of working with their friend overtook the task in hand. Some of the children were not happy with the partner that they had, but as the process was fair they accepted it. Once the children were able to settle I taught them using the direct teaching method. I wanted to ensure that the quality of the material I was teaching was relevant and important to the task rather than the length of the talk. Using Vygotsky’s ‘zone of proximal development’ I wanted the children to refine their thinking using discussions with a peer and stretch their thought process’ (WAG, 2010) even though I was concerned with the length of time the children were sitting on the carpet. The children were able to complete the task, after being paired with another, because they only had one thing to consider which was the task.

While the children were completing the task I noticed that they knew what to do and were able to execute without much assistance from any adult within the room including myself. In fact the children wanted to draw the table and seemed very comfortable predicting the outcome. This was a surprise as I assumed that the children would prefer the worksheet rather than drawing the grid.

Conclusion

Within my teaching and learning experience I have enjoyed exploring different ways to encourage children to think. This had been done through a range of strategies which I have mentioned above including AFL, thinking and problem solving skills. I will teach most of the lessons in the future. Although, I will adapt a majority of them allowing for prior knowledge, practicality and level of development.

Finally, I will definitely explore a range of AFL strategies throughout all parts of my lessons. Using personal targets, discussion, sequencing, talk and feedback I aim to allow children to have an active role within their learning journey as this is their education!

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