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Wednesday, November 13, 2019 10:49 AM

Student number: 1900360

Pathway: Primary

Targets from previous assignment:

	Target	What I have done in this assignment...
Target 1	To develop your understanding of being critical and to write in tentative language that maintains respect for participants.	I have developed my understanding of being critical by reading several examples of other students work that were complemented for writing critically in the previous example. I have learnt that writing critically not only means being critical but looking at all viewpoints, positive, negative and conclusions. Within this assignment I have looked at several different research viewpoints and considered this in relation to my own practise. I have been critical of my own practice by weighing up the positives of my teaching experience and have included improvements and recommendations to improve my own professional development.
Target 2	To develop your skills in observing and recording an objective view of what happens in educational practice that reflects a deeper understanding. This will come perhaps as experience develops.	This was difficult to apply in the current assignment due to the purpose of the assignment not requiring me to observe classes. Nonetheless I was able to record my examples objectively.

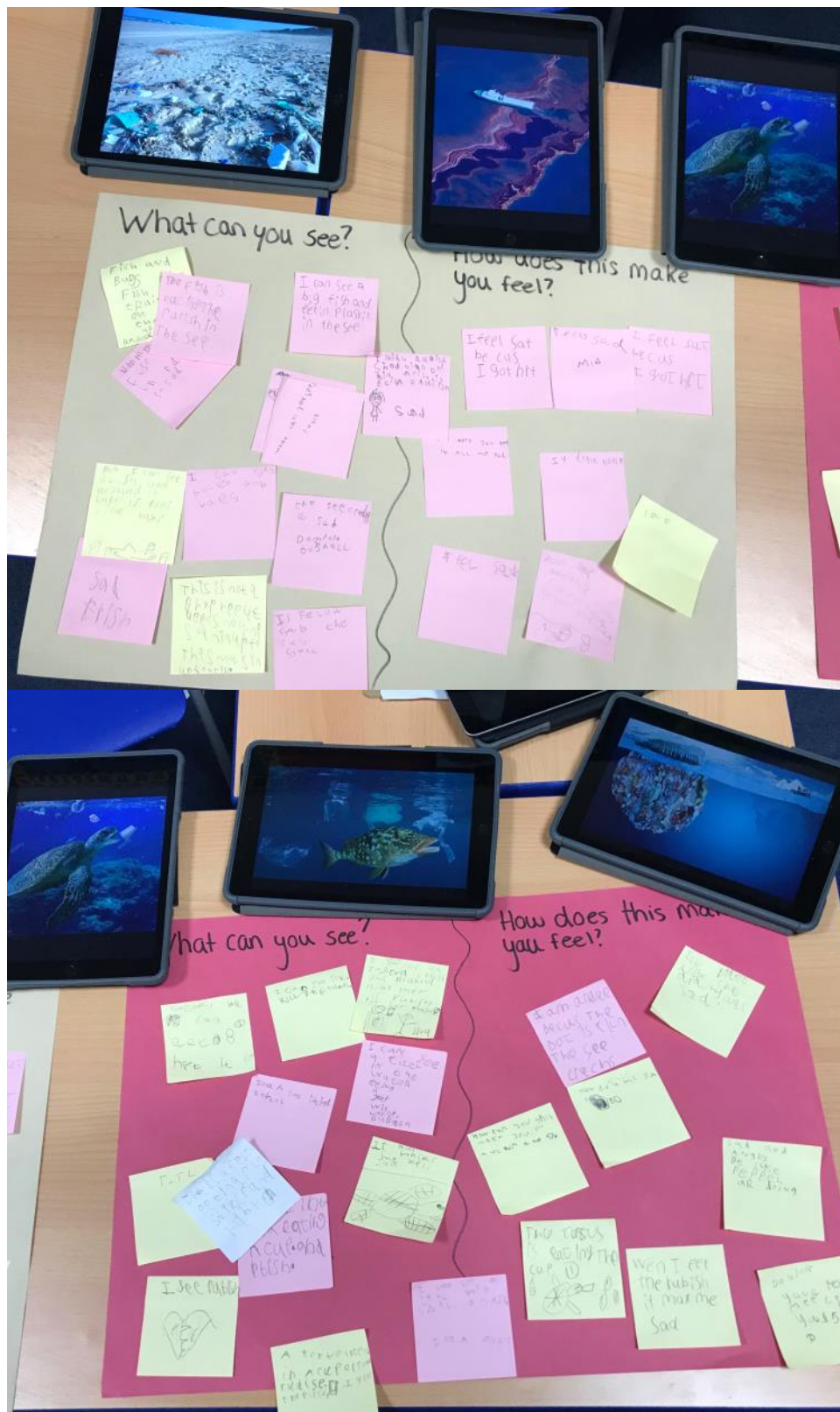
One Note Link: https://uowtsd-my.sharepoint.com/personal/1900360_student_uwtsd_ac_uk/_layouts/15/WopiFrame.aspx?sourcedoc={59cfb22f-7457-445d-ab6a-2059a3fdaa15}&action=edit&wd=target%28ECAD6008.one%7C81725ef3-b432-4dbb-9b16-fa88deca8801%2FTitle%20Page%7C05c6d716-a3ef-4b7f-8ce9-2dae2737362a%2F%29

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Example 1 - DCF, oracy, writing & KUW

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Within the topic of under the sea we spent a series of lessons learning about, discussing, and writing about sea pollution. Within this I planned for a wide

range of cross curricular activities. DCF was incorporated into these lessons firstly by watching a video which explained sea pollution and started a discussion for pupils about the effects of sea pollution on the sea life.

The foundation phase framework (WG, 2015) directs teachers to provide a cross-curricular approach to form a practical and relevant curriculum where areas of learning complement each other and emphasis is placed on developing children's skills across the Areas of Learning. In addition, it is recommended that these areas should not be approached in isolation, but a cross-curricular approach should be adopted to provide a suitable and integrated approach for young children's learning.

DCF was also incorporated with LLC and KUW where pupils worked in small groups of 4 and had to visit different stations around the classroom where there was an iPad with a gif of sea pollution, for example, a turtle trapped in some rubbish, an oil tank leaking into the sea or a beach filled with rubbish. In their groups pupils had to watch the gifs on the iPad and record one post it note explaining what they could see was going on in the picture and another explaining how this made them feel. Pupils did this 6 times in six different stations. This not only taught them about sea pollution, but also about the different effects it has on our wildlife, beaches, sea, human life etc. Whilst allowing pupils to discuss how this made them feel.

This was a context lesson that took place and incorporated different cross curricular responsibilities. This approach was a new approach for me to try, but I found inspiration from Twitter which helped me to include moving images of gifs as I originally intended to use images. I noticed that a few teachers had commented the effectiveness of using gifs because they can relate to the real world ,especially within the topic of sea pollution. The lesson was very successful and pupils all commented at how much they enjoyed using the iPad and viewing real life sea pollution. This activity could be developed by incorporating more DCF. For example, if the class had access to more iPad's/computers they could collate their ideas in groups to make online posters.

Example 2 - LLC, KUW & Expressive arts

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Within the topic of under the sea I planned for a wide range of cross curricular activities. This included linking oracy with expressive arts and knowledge and understanding of the world. After learning about sea pollution the children discussed how the animals might have felt being in a polluted ocean full of plastic, oil, litter and sewage. Pupils then decided they wanted to encourage the rest of the rest of the school to reduce sea pollution so we

created a temporary display through the AoLE of expressive arts.

The children used coffee filter papers and watercolours to create this display. We made stencils of black card animals and then the children cut them out and stuck them on the filter papers. In addition, some children wanted to create a slogan or short motto to put on their coffee filter paper. These slogans included "look after our SeaLife", "stop sea pollution" and "stop littering". This also brings in LLC and writing to the cross curricular approaches within this topic.

This was an activity which was originally planned to be part of the Expressive arts AoLE in a series of lessons around sea pollution using DCF and KUW. However, it was my class mentor who suggested incorporating LLC as part of the lesson to incorporate other cross curricular responsibilities. While groups of children were painting and creating their coffee filter papers, other students had the chance to use their oracy skills to describe pictures of sea pollution, how it made them feel and come up with three ideas of how we can reduce sea pollution. This was filmed by the class teacher and TA and uploaded to seesaw for evidence. This was successful in implementing in the classroom. The cross curricular responsibility of LLC could be further developed by asking children to produce posters to put around the school to encourage other pupils to reduce sea pollution and plastic pollution.

Example 3 - Maths and Physical Education

Thursday, November 28, 2019 6:56 PM

Lesson Plan Phase 1

Lesson Plan – Step 1 Cynllun Gwers – Cam 1



Student-teacher	Megan Whiteley	Class:	Year 2 - Millipedes
AoLE or Subject	Maths – L1	Date:	26.11.19
Lesson Focus:	Estimating and checking		
Meaningful links to Curriculum	○ Use knowledge and practical experience to inform estimations ○ Make a sensible estimate of an amount that can be checked ○ Pupils can make sensible estimates of large groups of objects and use estimation and checking with calculations and measurements. ○ Pupils can build up to using a variety of estimation and checking strategies that are appropriate to what is being estimated. ○ Pupils can build up to using finer estimations and checking strategies including halving/doubling.		
Meaningful links to: Cross Curricular Responsibilities	○ LLC – Oracy – discussions around the topic of estimation and deciding through partner talk the best strategy in making a sensible estimation. ○ Physical development & well-being – starter activity - children to estimate how many star jumps they can do in 10 seconds. Estimate, then all pupils to get up and check to note the importance of checking strategies.		
Personal Targets (Linked to QTS and identified in weekly review)			
My class mentor and I have agreed that my target for this week is based on assessment under the pedagogy teaching descriptor within the teaching standards. This will concentrate on assessing the children's learning throughout the lesson and adapting future lessons to suit their learning.			
Meaningful links to: Cross Curricular Responsibilities	○ LLC – Oracy – discussions around the topic of estimation and deciding through partner talk the best strategy in making a sensible estimation. ○ Physical development & well-being – starter activity - children to estimate how many star jumps they can do in 10 seconds. Estimate, then all pupils to get up and check to note the importance of checking strategies.		
Personal Targets (Linked to QTS and identified in weekly review)			

When beginning to teach the topic of estimation in maths I adopted a direct teaching approach. As this was a difficult topic to grasp and the direct teaching approach was going to take longer I decided to include the cross curricular approach of physical education.

As a starter activity pupils had to estimate how many star jumps they could do in 10 seconds. This was linked to the topic of estimation and helped them to understand what estimation was. After pupils had made their estimation we discussed whether their estimations were sensible and why and those that were not

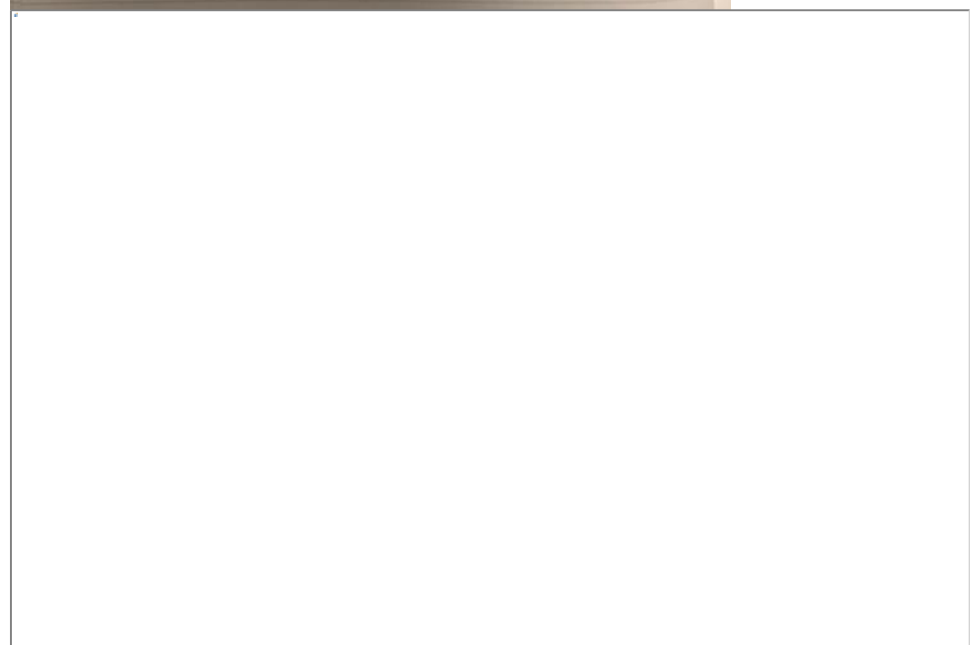
sensible and why.

Then pupils had the chance to check their estimation by counting how many star jumps they could do in 10 seconds. This not only broke the direct teaching approach up but also allowed pupils a chance to do some PE in the lesson. As I have found it difficult to include cross curricular approaches into maths I feel that this was a fun part of the lesson that allowed for cross curricular approaches within maths.

The foundation phase framework (WG, 2015) directs teachers to provide a cross-curricular approach to form a practical and relevant curriculum where areas of learning complement each other and emphasis is placed on developing children's skills across the Areas of Learning. In addition, it is recommended that these areas should not be approached in isolation, but a cross-curricular approach should be adopted to provide a suitable and integrated approach for young children's learning. Thus, cross curricular approaches are essential within teaching, no matter how difficult it might be to incorporate these within the area of learning of maths.

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Use of assessment for learning strategies Page 8

stops and spelling words that are available to them correctly.

For example in this story re-tell of Rapunzel children were encouraged to spell words such as 'Rapunzel', 'tower' and 'prince' correctly as these were written on the board for them.

The process of purple editing ensures children can reflect on their own work therefore making progress and aspire to be the best they can be.

I used this approach within the classroom as it was an approach that I had observed from my class mentor and the pupils were familiar with this approach. During literacy lessons, after pupils had completed a piece of extended writing they would automatically purple pen edit their work, with a particular focus on capital, letters and full stops. I feel that this approach was fairly successful in finding the missing or wrong place of capital letters and missing full stops, however pupils often struggled to find errors in their own work. Therefore this approach could be further developed by asking pupils to work with a friend and ask them to read their work and help them to look for corrections. This was difficult to implement in a low ability year two class, however will be something I will try to implement in KS2.

Example 2 - Questioning - Lollypop sticks

Tuesday, November 19, 2019 9:01 PM





Lollypop stick questioning is a technique which I have used frequently in my plenary's of lessons. This helps me to understand who has understood key concepts of the lesson and who needs more work on certain areas. This technique is used to selectively choose pupils at random to answer questions. The purpose of this strategy is to ensure all students have time to think about and formulate their ideas before questions are answered in a whole class situation. Hence, I often used this technique during teaching after a think, pair, share activity.

Gardner (2012) suggested that rich questioning is important in classroom practice as part of assessment for learning strategies as responses to open-ended questions may reveal the learners level of understanding and can also be used to plan the next learning stage. I used this approach within the classroom as it was an approach that I had observed from my class mentor and the pupils were familiar with this approach. I feel that this approach worked well in this particular class because the majority of pupils were happy to contribute. There was one child in the class who didn't like to talk in whole class situations, but despite this, even when her name was called she either whispered to a friend or could whisper to me what her answer was.

The lollypop sticks worked particularly well in welsh and French lessons where helper heddiw's would come up to the front of the class and ask a question in Welsh/French to the pupils and the name the helper heddiw's picked out of the lollypop stick jar, would have to respond to the question asked. This created a very pupil led and pupil centred lesson where I was in the class purely to assist the helper heddiw's.

This approach could be further developed by using think, pair, share before the lollypop stick approach if the pupils were not completely comfortable talking in a whole class situation.

Example 3 - Peer Assessment – thumbs up /thumbs down

Wednesday, November 27, 2019

9:38 PM

7 minutes	Teacher to question to assess if they remember what was discussed at beginning of lesson:		Resources:
Plenary	- What is estimation? - a good guess - Why do we estimate? - Why is estimating important in our everyday life? - What type of things might I estimate? Teacher to use lollypop sticks. AFL - Teacher to give examples of estimations throughout the lesson and ask pupils to give thumbs up or thumbs down as to whether they think these estimations are sensible.	Pupils to first engage in a think pair share and then pupils picked at random by lollypop sticks. Pupils to respond to teachers examples of whether they think the estimations are sensible by giving a thumbs up or thumbs down.	- Lolly pop sticks H&S: - Ensure chairs are under tables. - Computer cables away and are not likely to cause a trip hazard.

Andrade and Valtcheva (2009) outline that the purposes of peer-assessment are to identify areas of strength and weakness in pupils work, in order to make improvements and promote learning. The thumbs up / thumbs down approach was used at the end of a maths lesson estimation. Following feedback from my senior mentor in my first observation on estimation, I decided to improve my use of AFL strategies by broadening my strategies to include peer assessment. I decided to use the thumbs up/ thumbs down approach during the plenary of the lesson, where pupils had to form pairs, and from the PowerPoint and objects shown at the front give a sensible estimation. We then followed the success criteria of estimating and checking and once this was done pupils had to feedback to each other using the thumbs up, thumbs middle or thumbs down approach to tell their partner if they had made a sensible estimation. Following this, we feedback as a whole class to discuss why partners had given each other thumbs up or thumbs down and why they thought this was a good/ sensible estimation or a bad estimation and how they could improve their estimation next time.

This was conducted in a maths lesson on the topic of estimation where after learning about and completing an estimation task pupils were given some examples and asked whether they were sensible estimations. This was to check the whole class knowledge and understanding of a sensible estimation. This allowed me to check the whole class understanding of what a sensible estimation was while giving pupils the opportunity to discuss their estimations.

I used this approach because during my first observation with my senior mentor it was noted that I needed to use a broader range of AFL strategies and thumbs up/ thumbs down was one that was suggested as being age appropriate and easy for year 2 to use. I feel this was successful within the lesson of estimation, but could be further developed by pupils adding comments and explaining to partners why it is or wasn't a sensible estimation.

Example 1 - Focus task

Wednesday, December 4, 2019

5:59 PM

50 minutes	Working in maths groups and then to complete estimation mojo challenges.		Resources:
Teaching & Core Learning	Two Estimation stations – for middle ability groups. Teacher to support and guide sensible estimations.	MA Pupils to work in maths group with Teacher / LSO / Student teacher. Pupils to investigate the estimation station. Pupils to first estimate what is in the jar/ picture – how many items? And then count the items – to check their estimation.	- o Estimation stations – jars, sweets, paperclips, blocks, photos of estimations. - o iPad – seesaw - o LA – worksheet to support learning - o HA to film their estimations and checking on the iPads.
	Focus group: Spheres (LA) – to go outside with Teacher/ TA and make sensible estimations following the worksheet.	LA pupils to work outside on estimation with TA/Teacher and use the worksheet to note their estimation and checking.	H&S:
	2 Focus groups: LA and MA pupils to look for groups of things to help estimate. Looking for groups of 2, 5 or 10 items.		- o Ensure chairs are under tables. - o Computer cables away and are not likely to cause a trip hazard.
	HA pupils to estimate in mojo challenges independently.		

Donaldson (2015) suggests that employing a blend of approaches in teaching is important as its essence lies in clear purposes and success criteria, modelling and practice, and regular and insightful feedback.

This lesson was on the topic of estimation in a year two class which was the first lesson in the series of lessons on estimation. After the direct teaching in the opening phase pupils then worked in focus groups or on independent mojo challenges to put their learning from the direct teaching into practice. The lesson went well and pupils learning was evident through during the plenary of the lesson when pupils were questioned on the activities they had undertaken throughout the task. In addition, pupils learning was evident through the focus group. The focus group that I had were estimating in pairs and were filming themselves for evidence on seesaw. The pupils knew how to be successful as they had the success criteria available to them and guidance from teacher and teaching support staff.

Example 2 - Direct Teaching

Wednesday, December 4, 2019

6:00 PM

Time 1 hour	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)
12 mins Opening phase (with links to prior learning)	Teacher to adopt direct teaching approach to introduce topic of estimation with PowerPoint. Teacher to ask pupils to make an estimate at the start of the lesson as to how many sweets are in the jar. Teacher to ask: What is estimation? - a good/sensible guess Why do we estimate? Why is estimating important in our everyday life? What is a sensible estimate? – what strategies can I use?	Pupils to engage in a 30 second independent think task and write down how many sweets they think are in the jar and their name on a post it note . Pupils to listen to teacher's introduction and input when asked questions.	Resources: o Sweet jar o Post it notes o Pencils o Powerpoint – USB H&S: o Ensure chairs are under tables. o Computer cables away and are not likely to cause a trip hazard.

Hattie (2009) defines the importance of direct teaching as 'the teacher decides the learning intentions and success criteria, makes them transparent to the students, demonstrates them by modelling, evaluates if they understand what they have been told by checking for understanding, and re-telling them what they have been told by trying it all together with closure'.

At the beginning of some new topic lessons I would introduce, teach and model what we were learning through adopting a direct teaching approach. Sometimes this would be to the whole class whereas other times I might put groups on mojo challenges and adopt a direct teaching approach by leading one or two groups. With this particular lesson related to the lesson plan above I adopted a direct teaching approach to the whole class because this was a new topic which all pupils would be completing work on. The direct teaching approach was not didactic as Donaldson (2015) suggests is a risk for direct teaching, but it was interactive and engaging. This approach was used as I have seen this to be successful from my class mentor and in addition to Donaldson's recommendations of pedagogical principles.

This approach was successful and pupils remained engaged for the entirety of the opening phase when direct teaching was adopted. On reflection my lesson plan could be developed and more detailed. Although I have stated that I will be adopting a direct teaching approach, I did not give further detail to how the direct teaching approach would be used. For example, I could have included terminology such as model, share success criteria and learning objectives to make them transparent to the children.

Learning Objectives (focus on Learning- use accessible vocabulary):
By the end of the lesson all pupils will be able to: 1. understand what estimation is, 2. be able to make a sensible estimation, 3. and check their estimations.

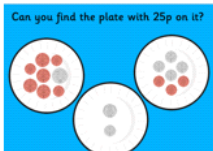
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Success Criteria (clearly linked to each Learning Objective and related to the process and/or product of learning)	Assessment of Pupils' Learning Evidence (What have the learners to say/write/do/produce – to demonstrate learning)
1. All pupils will be able to give a definition of estimation as a sensible/good guess. 2. All pupils will be able to make a sensible estimation - LA pupils will be able to make a sensible estimate up to 25 objects - MA pupils will be able to make a sensible estimate up to 50 objects - HA pupils will be able to make a sensible estimate up to 100 objects. 3. All pupils will know how to check their estimations by counting the objects they estimated. - MA and HA pupils will check their estimation and identify how close/far away their estimation was from the real amount.	1. All pupils will be able to be questioned on what estimation is and will be able to verbally provide an answer. 2. All pupils will visit an estimation station and will make a sensible estimate of how many items are in jars or they estimate are in the pictures. 3. All pupils will check their estimation by counting the objects whilst making a note of both in their maths books.

Example 3 - Blend of approaches – Mojo Challenges

Wednesday, December 4, 2019

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Planning for Enhance Provision - Year 2		
Mojo Challenges		
<u>Reading Area</u> Sequencing - Can you put the story of Pinocchio back in the correct order?	<u>Mathematics Area</u> Money task - can you match a value to a selection of coins? 20 questions - spin the wheel and answer the question number.  Can you find the plate with 25p on it?	<u>Outside Area</u> Clay puppet using outdoor materials and create a story. Create a natural wind mobile (sticks, leaves, etc.
<u>Creative Area</u> Create your own puppets. Cut out and make finger puppets.	<u>ICT Area</u> Create your puppet show characters on the computer.	<u>Role Play Area</u> Create and perform your own puppet show.

Every week different Mojo challenges were planned and prepared for the enhanced provision areas in and outside of the classroom. This was implemented as a whole foundation phase approach to employ a blend of approaches for children to learn around the classroom. An important aspect of this pedagogical principle is ensuring that teachers create contexts within which learners can demonstrate the ability to apply learning independently in unfamiliar settings is an important part of scaffolding.

Using a blend of approaches and creating different contexts for learning within the mojo challenges was successful in addition to employing direct teaching. One example of a popular mojo challenge was in the investigation station where pupils had to investigate how they would get the gingerbread man to cross the river. There were lots of materials that children could choose from and many pupils chose to make a bridge out of bits of wood to help the gingerbread man cross the river without getting soggy.

Mojo challenges such as investigation station allow pupils to work, learn, problem solve and investigate in an independent setting. As my professional teaching experience developed through the weeks, so did the mojo challenges I created. For the last week, my class teacher thought it would be a nice idea to incorporate pupil voice for the challenges, so that pupils could decide what they wanted to do within the different enhances provision areas. This gave them more ownership over the challenges that they were completing. This could be developed by ensuring pupils not only have the ability to use a blend of approach but ensure that each challenge has a blend of materials and resources that are new to the children and that they can investigate each and throughout each week.

Reflective Conclusion

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The purpose of this assignment is to explore three of Donaldson's (2015) twelve pedagogical principles in depth, with a critical reflection of my personal progress made on the planning and implementation of the three principles within my professional teaching practice. My professional teaching practise was conducted in a large, rural primary school in South Wales. I was based in the foundation phase, in a small year-two class with twenty-two pupils aged between six and seven. This essay has been divided into three sections based on the pedagogical principles under consideration with a discussion of the implementation of the principles within my own professional teaching practise; "Good teaching and learning means employing assessment for learning principles", "Good teaching and learning regularly reinforces Cross-curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practise them" and finally "Good teaching and learning means employing a blend of approaches including direct teaching" (Donaldson, 2015, p.65-67).

The first pedagogical principle I will discuss is 'Good teaching and learning means employing assessment for learning principles' (Donaldson, 2015, p.67). Assessment for learning (AFL) has been defined as the method of interpreting and gathering evidence not only for teachers, but also for pupils to identify where they are in their own learning, where they need to go and how best to get there (ARG, 2002; Ausubel, 1968; Hattie 2012). More recently, Wiliam (2009) has defined formative assessment as a continuous regulation of the learning environment which occurs throughout classroom collaboration. AFL is an imperative aspect of the twelve pedagogical principles and has been emphasised as being the key means of improving educational standards (Black and William, 1998). Out of this review came four crucial recommendations; more thinking time for learners to answer questions, teachers to provide productive feedback rather than marks, incite learners to assess themselves and each other and to include learners in the design of assessment and mark schemes.

It is well established that AFL is a fundamental tool within the classroom as Black et al. (2002) found evidence that AFL approaches may increase attainment by half a level in KS2 and half a GCSE grade in KS3. This study not only highlights the significance of structured feedback within the classroom but additionally emphasises the importance of providing pupils with a way to improve their work which improves their overall attainment. Within my own professional teaching experience I successfully implemented AFL strategies throughout the majority of my lessons, through questioning, verbal feedback, pupil purple pen editing and using thumbs up and thumbs down to self-assess. I frequently used questioning as an AFL strategy within the majority of my lessons, as I found this was most effective to pupils learning and the simplest to incorporate into lessons. Gardner (2012) notes that rich questioning is vital in classroom practice as part of AFL since responses to more open-ended questions may reveal learners level of understanding and can be used to plan the next learning stage. Consequently, questioning was used at the beginning of the lesson, so I could identify where pupils were at or recall information from the previous lesson. Questioning was also used throughout the lesson so that pupils could apply their knowledge to new situations, and during the plenary where I could evaluate the overall learning process. Learning seemed to be effective through using questioning because it allowed children to have active discussion as I could challenge different levels of knowledge which allowed me to see if children were ready to progress with their learning. A recommendation for my

future professional teaching practice is to implement Bloom's taxonomy (Bloom, 1956), not only to improve children's learning but to improve my questioning skills. Bissell and Lemons (2006) suggested that Bloom's taxonomy enhances student's skills, concepts and critical thinking thus is an effective element of formative assessment (Black et al., 2003). However, Eber and Parker (2007) note that despite being effective the implementation of Bloom's taxonomy requires careful planning and consistency from the teacher to enhance learning.

Nevertheless, while the effectiveness of the use of AFL within the classroom is widely acknowledged, claims are not always well rounded which Bennett (2011) suggested may stem from the lack of a definite definition of the concept. In addition this can be supported by Black and Wiliam (1998), who originally reported a general difficulty in defining formative assessment and the means it was interpreted through many different reviews. Their review concluded that there cannot be any one optimum model in which policy for formative assessment can be based, but there are a set of guiding principles. These guiding principles are essential and are what Donaldson (2015) refers to as assessment for learning.

During feedback from an observation conducted by my senior mentor, a target for my development was to implement a broader range of AFL strategies. During my last week of placement I tried different forms of peer-assessment techniques and found that 'thumbs up and thumbs down' was effective. In my reflection I noted that this might have been most effective because of the age group I was teaching; hence this approach was age appropriate and was a potential reason as to why I had struggled to implement more self and peer assessment strategies. Black et al. (2004) defined self-assessment as essential to learning in ensuring pupils understand their learning goal with peer-assessment as a key accompaniment to self-assessment. Supporting this, Deakin-Crick et al. (2005) suggested that as students become more familiar with peer assessing their work and discussing it with their peers the likelihood of pupils expressing opinions, asking questions and debating options increases. Consequently, I could develop the implementation of this principle in example three by extending the thumbs up thumbs down approach of their partners estimation to develop a star and wish. Gielen et al. (2010) found that asking students to justify their comments may lead to improvement, consequently, asking pupils to justify their thumbs up or thumbs down with the addition of a star and wish may give the other pupil a target of how to improve upon their original estimation.

The second pedagogical principle I will discuss is 'Good teaching and learning regularly reinforces Cross-curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practise them' (Donaldson, 2015). Barnes (2015) defines cross-curricular learning as using the skills, attitudes and knowledge from several different disciplines and being able to apply them to a single experience, hence this experience can be considered on a macro level. There is a growing body of evidence which identifies the importance of cross-curricular approaches within education, as Hayes (2017) notes the knowledge and skills that pupils learn in one area may be used to reinforce learning in further areas, consequently softening subject barriers to combine appropriate areas of subjects into a multifaceted whole. Wallace et al. (2009) proposed that scientific investigations can be found within literacy, geography, stories, history, maths, drama and role-play to create a multitude of cross-curricular projects. However, an important distinction should be made between making natural and unnatural cross curricular links. Hayes (2017) found that connections amongst particular subjects might be more natural than between others, such as, connections between geography and music which are likely to be more difficult to create naturally than those between subjects such design technology

and the sciences.

Within my own professional teaching practise, I found it challenging to integrate cross-curricular connections while teaching maths. Some of my maths lessons failed to include cross-curricular links and when I did include cross-curricular approaches they were often a small aspect of the lesson; hence maths was still the major focus. In example three under this principle in my portfolio, I have presented a maths lesson plan on estimation, where pupils were asked to estimate how many star jumps they could do in 10 seconds and then check their estimation. One potential reason for finding it difficult to incorporate cross curricular links within maths might be since the introduction of the numeracy hour, as since then many primary schools separated mathematics off from the rest of the curriculum to ensure they meet statutory requirements (Ward-Penny, 2010). Nonetheless, teaching mathematics by cross-curricular means may help to familiarise pupils with the idea of applying maths in different contexts and building towards critically evaluating its use against authentic limitations (Hayes, 2017; Starcic, 2016; Ward-Penny, 2010). The small use of applying estimation to a physical activity helped some children to understand the otherwise difficult concept, consequently in this situation learning through cross-curricular approaches was effective. This was evident through the use of questioning after the starter activity, where more children were able to give a more accurate definition of estimation and some even came up with strategies to make a sensible estimation.

A more holistic reflection would have included literacy lessons where I implemented cross-curricular activities, however due to the literacy level of the class being extremely low, the majority of literacy lessons were spent teaching speed sounds and carrying out interventions which meant implementing cross curricular approaches was difficult. Nevertheless, within topic lessons I used cross curricular approaches to incorporate literacy as well as the digital competency framework and knowledge and understanding of the world. Common features to success in learning suggest that cross-curricular approaches involving literacy are key to improving overall literacy standards (Walker-Dalhouse and Risko, 2008; Langer, 2001). This is supported by Harris and Grenfell (2004) who noted that cross-curricular learning provides opportunities for core skills that can be transferred in different contexts. Within topic lessons pupils learning appeared to be effective as they were able to produce three ideas as a whole class to reduce sea pollution which pupils then applied to their own coffee filter papers combining literacy and expressive arts to create their own slogan.

One key issue within this principle is ensuring that cross-curricular approaches are natural and authentic rather than becoming an attachment which links to the pedagogical principle “Good teaching and learning creates authentic contexts for learning” (Donaldson, 2015, 67). Within this principle Waters (2013) defines good teaching as ‘bringing the world into range’, therefore pupils need to view the relevance of their learning not only in an authentic context but also within cross-curricular approaches. I was successful in implementing these principles within topic lessons when teaching about sea pollution. Authentic contexts were created by using iPads to show short videos and images of what sea pollution looks like, learning was effective as pupils were able to describe what they saw, how they felt and what they could do to reduce sea pollution. It has been consistently found that the use of digital technology within the classroom is related to learning developments on average of a further four months progress (Education Endowment Foundation, 2019). Nonetheless, the simple existence of technology in the classroom may not improve pupil’s attainment, as to be effective it must be embedded and driven by learning goals rather than driven by

technology (Roschelle et al. 2000; Muir-Herzig, 2004). Consequently, technology should only be used if it will improve learning interactions, such as through creating authentic contexts of sea pollution inside the classroom.

Finally, the last pedagogical principle I have chosen to discuss is “Good teaching and learning means employing a blend of approaches including direct teaching” (Donaldson, 2015, p.65). Flanders (1970) observed direct teaching as led by the teacher with dependence on authority, lecture and the giving of instruction. On the other hand, there is also indirect teaching from the constructivist approach, in which pupils are encouraged to contribute in an active learning environment which involves personal understanding and collaboration (Metzler, 2011; Morgan, 2007). However, Donaldson (2015) implies a move away from traditional, didactic direct teaching or favouring constructivist approaches and uses Hattie’s (2009) description of direct teaching by making the learning transparent and modelling and evaluating students work to check for understanding. This definition might be argued as subjective as it neither favours one approach or another, however its popularity might also lie within this as a focus of one approach would fail to reflect the complexity of pedagogical approaches within education.

I was able to successfully implement the ‘direct teaching’ aspect of this principle in most of my lessons. Despite being in the foundation phase where typically the emphasis on teaching is on evolving learning actively rather than simply transferring facts (Estyn, 2011), with being in the last stage of the foundation phase of year-two, I was able to implement direct teaching in the opening phases of my lessons. The learning during this time was usually effective as pupils were engaged, listened well and interacted with questioning well. It is important to note here, that the direct teaching approach adopted was based on Hattie’s (2009) description where the learning was not only made transparent but was often modelled and used with a success criteria. After the direct teaching approach pupils worked in focus groups with a member of staff to apply their new knowledge and giving pupils access to the success criteria not only meant that I could check if they were successful but ensured they knew how to be successful. To further progress within this principle I aim to improve my planning of direct teaching methods by modelling work more often and trying new approaches rather than simply sharing learning objectives and the success criteria.

The key phrasing within this pedagogical principle is ‘a blend of approaches’ since what works in one educational setting with one teacher may not necessarily work in another. For example, Pell et al. (2007) were strong advocates for the use of group work within the context of key stage three (KS3). However, despite the supporting research for the effectiveness of collaborative learning amongst pupils (Galton and Hargreaves, 2009; Galton et al. 2009), there is also equal evidence surrounding the unsuccessful use of collaborative learning from the result of poor planning or enforced collaborative learning. It is not that group learning is effective or not effective, as strong claims could be made about direct teaching or focus groups. What is essential here, is that it is the combination of pedagogic approaches and their implementation that is successful, whilst in addition ensuring the approach is appropriately suited to the activity for purposeful learning. This is supported by Stronge et al. (2007), who concluded that it is not that certain approaches are more effective, but rather that with careful implementation, and a fair amount of planning and organisation these approaches can be used as a blend of successful techniques.

Within my own professional teaching experience I was able to implement this pedagogical

principle well when focusing on 'a blend of approaches'. Working in a foundation phase setting meant that employing a blend of different approaches was imperative to keep the children engaged, on-task and to ensure purposeful learning was occurring. Continuous provision is an aspect of most foundation phase classrooms which provides exciting, meaningful, play-based ways to promote learning with the aim of continuing a child's learning in the absence of an adult (Bryce-Clegg, 2013; Bennett and Weidner 2012). McEvoy (2019) points out that continuous provision may encourage a child to develop certain dispositions dependent on the teachers planned activities. This is evident within my own practice as example three within this pedagogical principle shows how I planned for children to problem solve how they could build a bridge for the gingerbread man to cross the river. Hence, the planning of enhanced provision seems dictate the skills that the children develop during the week, such as problem solving used in my example. However, Bottrill (2018) suggests that teachers should step away from the areas of continuous provision because essentially, we are limiting children to our own choices rather than their own which subsequently puts a 'cap' on their learning (p.22). Considering Bottrill's viewpoint in my own implementation of enhanced provision, it would have been interesting to see what would have happened if the enhanced provision wasn't so rigidly planned that the pupils were able to construct their own activity. For example, if I had set up the enhanced provision discussed in example three with a range of resources and not modelled the activity, the activity may have been more open-ended, and the learning more effective because children may have applied their own imagination to construct a very different activity.

A way of improving my own enhanced provision planning might be to use a pupil voice session where the class plan their own enhanced provision for the week ahead. This will not only give them ownership of their learning but also allow them to apply their own imagination to tasks. Similarly, Davies et al. (2013) asserts that when pupils have a high level of control over their learning and activities within the classroom a creative environment in education can be established. This highlights that the skill of creativity can be increased when pupils are encouraged to take risks and make their learning relevant to them within a flexible environment. In addition, this links to the pedagogical principle 'Good teaching and learning means employing a blend of approaches including those that promote problem solving, creative and critical thinking', despite not discussing this principle, the use of a blend of approaches within teaching is fundamental as presented by Donaldson (2015) across two of the twelve pedagogical principles.

In conclusion, to develop my own professional practice and students learning in the classroom, several recommendations can be made from my critical reflection for future improvement. Firstly, I aim to include a range of assessment for learning strategies within my planning and be able to implement these in the classroom, which could be through using more self and peer assessment strategies to ensure pupils understand their learning goals (Black et al. 2004; Gielen et al. 2010). Furthermore, I aim to develop more cross-curricular opportunities in maths, in addition to becoming familiar with leading whole-class literacy lessons to be able to embed cross curricular links. Finally, I aim to consider alternative teaching approaches to enhanced provision as I move from foundation phase into key stage two, to ensure that a blend of teaching approaches continues. This is supported by Donaldson's (2015) aim to continue creative, play-based and emergent learning approaches into the key stage two environment.

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