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Pathway: TAR (Cynradd)

Assignment title: A portfolio which illustrates a critical reflection of progress made on the planning and implementation of three pedagogical principles.

Link to OneNote:

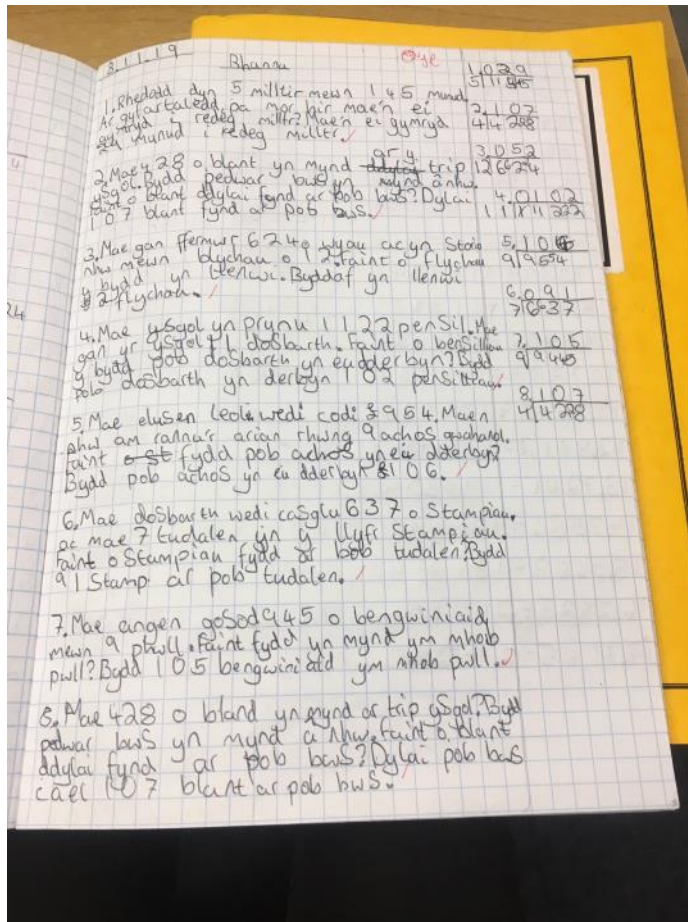
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I was unable to attend placement for a week and a half due to sickness (mumps), which as a result meant that I had lost valuable teaching time and experience. My absence has limited the variety of evidence for this assignment, however I am still able to critically reflect on my progress and provide recommendations for further development.

Illustrative example 1

Tuesday, 31 December 2019 16:59

Good teaching and learning regularly reinforces Cross-Curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them.

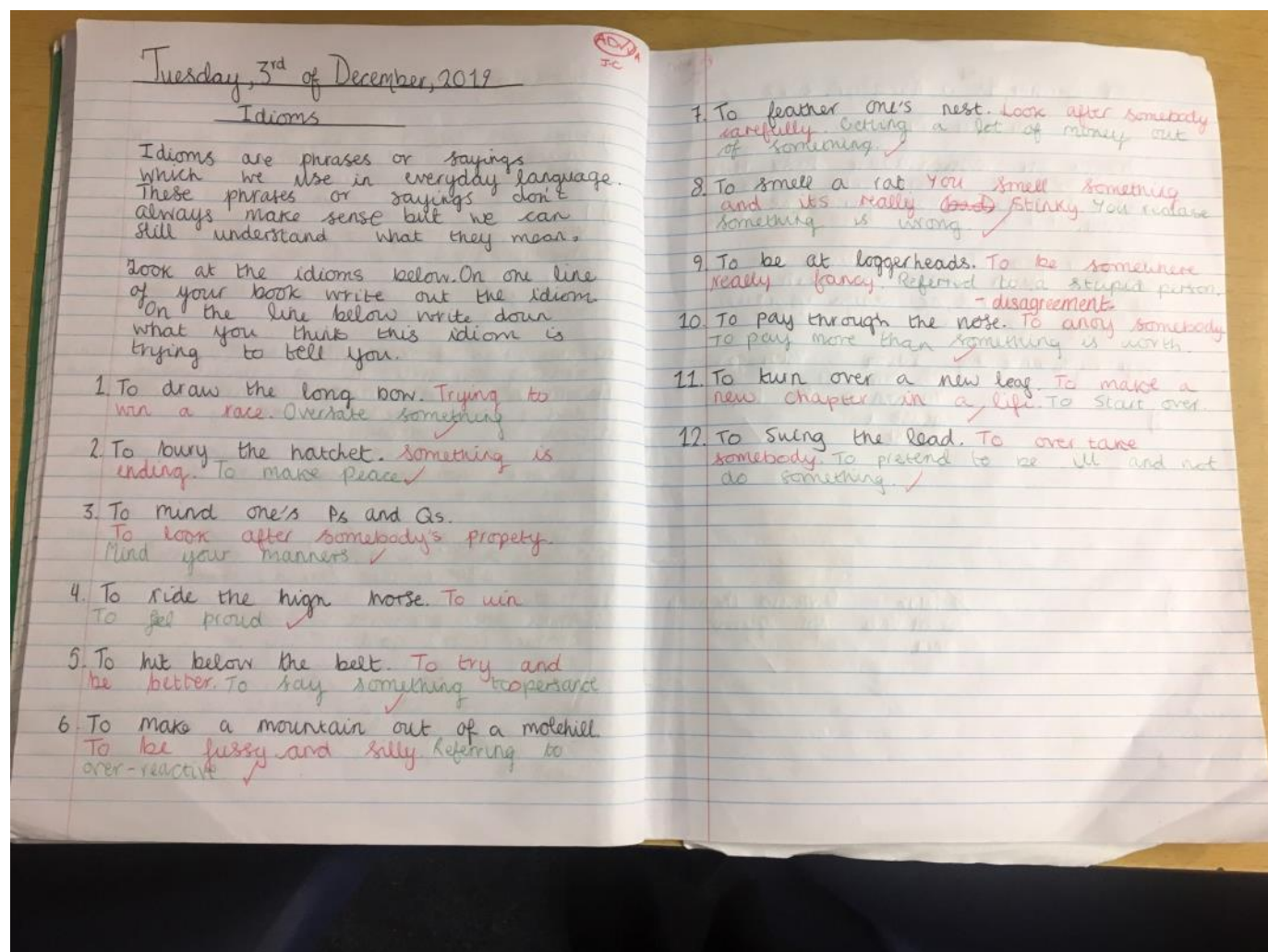


This mathematics lesson was with year 5 and 6 relating to division and 'world problem' questions (see above for an example of pupil A's work). I included numeracy and literacy within this task and chose to use this because it developed their skills of realistic mathematical problems in life out of school. The task intended for them to understand the written question before being able to provide the correct answer. I differentiated the task depending on the pupils ability, however this task was the focus for all pupils. The pupils had a number of lessons on division before being expected to complete this task, therefore this was not a group focus. They had lessons on pure subject knowledge (division) and that provided the skills needed to understand a cross-curricular task. I may need to consider introducing digital competence into my lessons, such as playing a game or creating a graph using the data etc. I would also ask the children to read out the questions to develop their reading skills. I believe that the task was successful and the learning objectives were achieved.

Illustrative example 2

Tuesday, 31 December 2019 17:00

Good teaching and learning regularly reinforces Cross-Curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them.

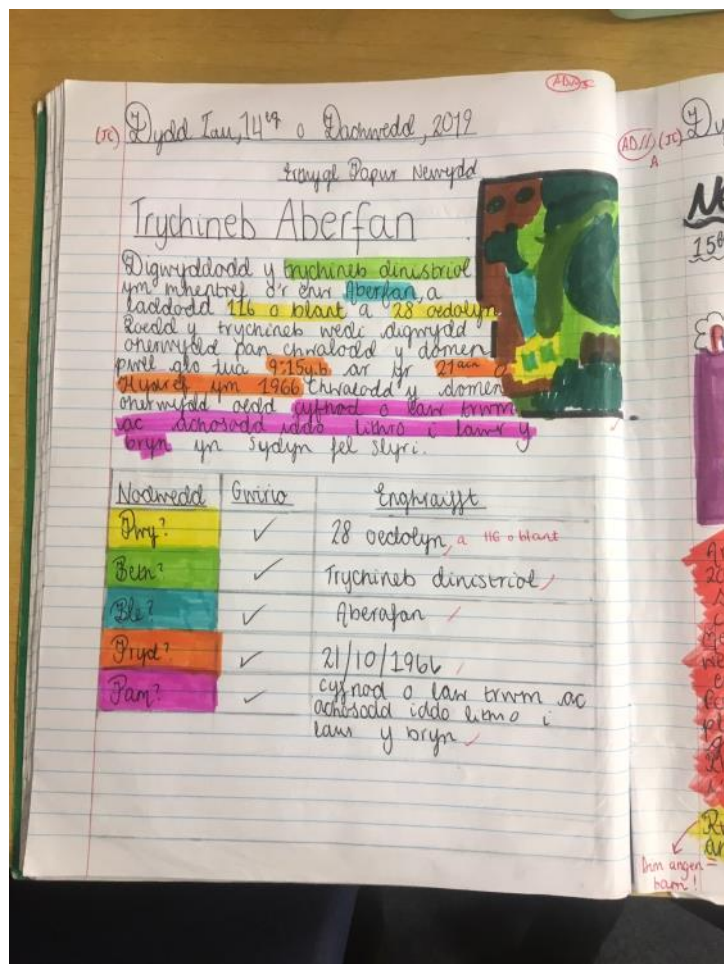


This was an English lesson on 'idioms' for year 5 and 6. The task involved reading the idiom (black), writing what they thought it could mean (red) and then using the laptop to search the answer (green). Therefore, this task encouraged literacy and digital competence skills as the pupils had to search the correct answers themselves and choose the correct answer. This task was differentiated and this particular task was for the top two performing groups. The other groups had tasks related to idioms but did not need to use the laptops due to the timetabling of laptops in the school. There is limited amount of laptops/iPads, and there is a specific timetable to follow. Therefore, if I was to do this task again then I would do a rotation of small tasks and that would allow for every child to have a turn using the laptop. The lesson went well as the tasks were differentiated appropriately, which meant that everyone was on task and understood the success criteria.

Illustrative example 3

Tuesday, 31 December 2019 17:01

Good teaching and learning regularly reinforces Cross-Curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them.



This example is taken from a pupil of year 5 and 6 during a Welsh lesson on the Aberfan disaster. This was in relation to learning the important features of an effective article (5 W's), to help prepare them from when it was time to create their own article. This task was differentiated related to different articles, however it was the focus of the lesson for everyone. This task required literacy skills and also used figures which required numerical skills to understand. However, if I was to do this task again then I would ask the pupils to create this table by using technology. Nevertheless, I do believe the task was an important lesson as it required the pupils to understand the emotion of the historic disaster in Wales.

Illustrative example 1

Tuesday, 31 December 2019 16:58

Good teaching and learning means employing assessment for learning principles.

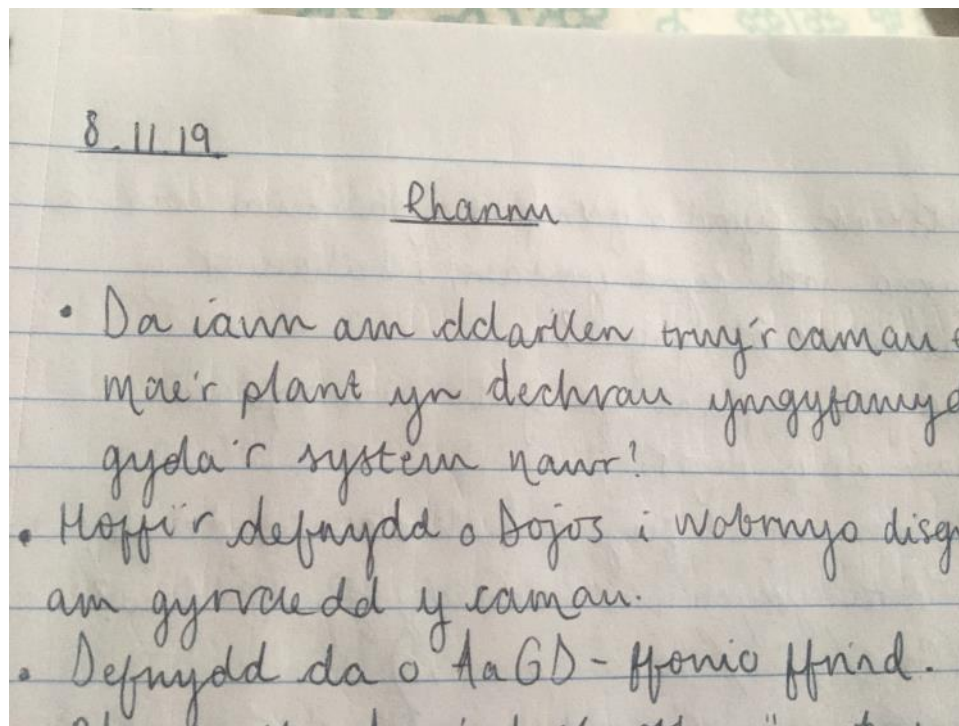


The first method I used regarding Assessment for Learning was the use of lollipop sticks with the pupils name on. They were placed under the white board in this little bag, and easily accessible throughout my presentation. This method proved to be effective for this particular year 5 and 6 class, as it ensured concentration throughout my presentations due to the pupils knowing that they could be chosen to answer related questions. I also liked the idea of allowing the pupils to choose one as this increased engagement from the beginning. However, I was unable to see the names of the pupils before selecting a lollipop stick, which meant that I could choose a less confident pupil that would prefer not to give an answer in front of the class. This could increase anxiety for a number of pupils, especially as they were pupils from year 5 and 6 class. Potentially better for younger children. Furthermore, I do still think it is an effective method of AfL.

Illustrative example 2

Tuesday, 31 December 2019 17:01

Good teaching and learning means employing assessment for learning principles.



During one the mathematics lesson on division, I used the AfL method of 'phone a friend'. This method was used when a pupil (year 5 and 6), did not know the answer after I had used the lollipop stick method of chosen the pupil. I quickly noticed that this pupil did not know the answer due to confusion with their time tables, which resulted in me using the 'phone a friend'. I asked the pupil if they would prefer to ask for some assistance from one of their peers, and the pupil said 'yes'. Therefore, the pupil 'phoned' a friend for help and that pupil was able to assist them in achieving the correct answer. However, I am aware that in these situations a pupil might tend to choose their best friend to help them, and that pupil could also present difficulty in achieving the answer. Furthermore, I would then realise that further explaining is required to the class to ensure the basic skill of division can be achieved.

Illustrative example 3

Tuesday, 31 December 2019 17:01

Good teaching and learning means employing assessment for learning principles.

6/1/19

Illustrative Example

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	x10	x100	x1000
4.02	40.2 ✓	402 ✓	4020 ✓
0.045	0.45 ✓	4.5 ✓	45 ✓
34.094	340.94 ✓	3409.4 ✓	34094 ✓
209.817	2098.17 ✓	20981.7 ✓	209817 ✓
0.006	0.06 ✓	0.6 ✓	6 ✓
0.087	0.87 ✓	8.7 ✓	87 ✓
86.035	860.35 ✓	8603.5 ✓	86035 ✓

	÷10	÷100	÷1000
56.9	5.69 ✓	0.569 ✓	0.0569 ✓
209	20.9 ✓	2.09 ✓	0.209 ✓
4.56	0.456 ✓	0.0456 ✓	0.00456 ✓
709.6	70.96 ✓	7.096 ✓	0.7096 ✓
0.072	0.0072 ✓	0.00072 ✓	0.000072 ✓
345	34.5 ✓	3.45 ✓	0.345 ✓
89.4	8.94 ✓	0.894 ✓	0.0894 ✓

This task was during the mathematics lesson of dividing and multiplying by 10,100,1000. This task was a pure subject-based knowledge as the pupils needed to understand this step before being able to understand the next task. I had differentiated this task and this particular example was taken from a pupil in the higher achieving group. The AfL method used was self-marking with a green pen. The pupils would follow the marking sheet I had created and would be able to assess their own work to see if they had achieved the lesson objective. If they did not have the answer correctly then they would need to write the correct answer and the method of achieving the answer. By writing the steps of the correct answer (if theirs is incorrect), would then ensure they could see where they went wrong and would know for next time. This pupil has the code marking specifically for full understanding of the task (ADRh- in the example). If the pupil has a code that requires further instruction then they would know this from looking at the code I have given them. Marking their own work provides independence and responsibility of their work, which is acceptable for this age group. However, this method might not be appropriate for a younger age group, and I would not expect them to be able to mark their own work independently. This emphasises the importance of using the correct AfL for the specific age group.

Tuesday, 31 December 2019 17:01

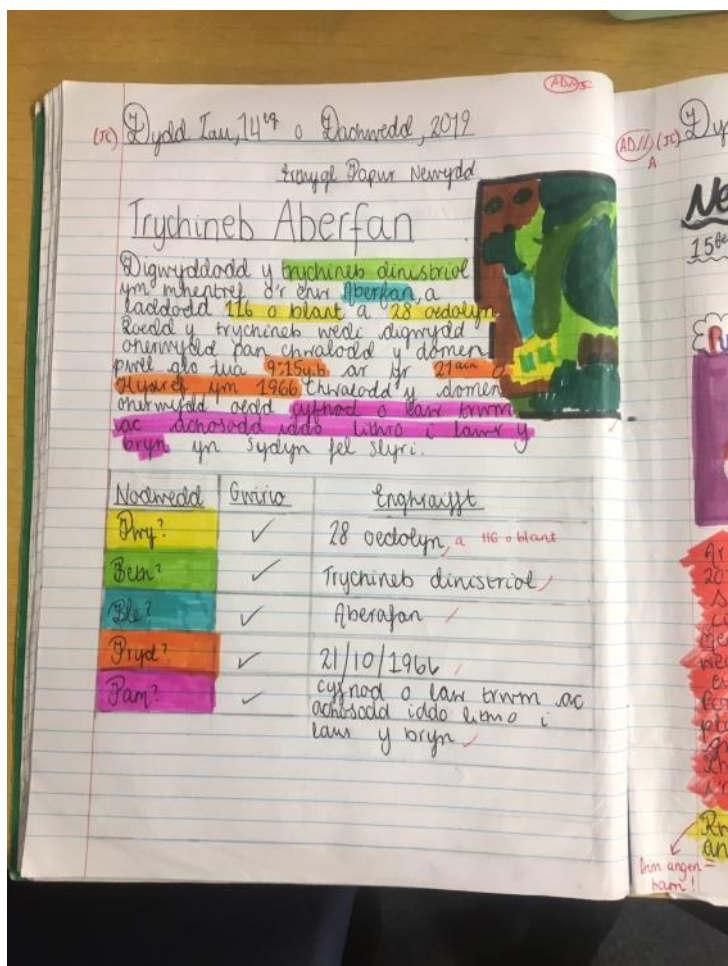
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Previous knowledge and experience Page 8

Illustrative example 2

Tuesday, 31 December 2019 17:02

Good teaching and learning sets tasks and selects resources that build on previous knowledge and experience and engage interest.

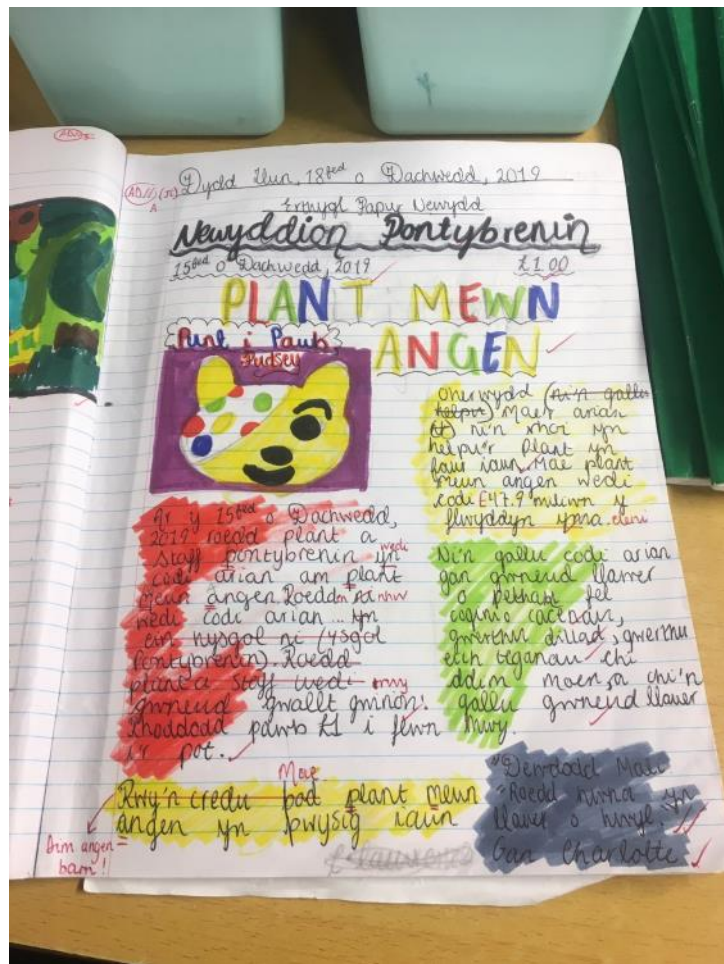


This example was from the work of a year 5 and 6 pupil and was during a Welsh language lesson building on previous lessons relating to newspaper articles. The lesson was a class focus and the articles were based on the pupil's ability. The task entailed reading the information and finding the correct information that builds an interesting article. The 5W's (who, when, where, why and what) contains valuable information for the readers. From doing this task, it ensured that the pupil realised the importance of sharing relative facts and this helped the pupils when it was time to create their own article (illustrative example 3). The 'gwirio' section allowed them to understand if they had achieved the learning objective from that lesson by ticking the box. If I was to do this task again then I would provide the facts to this particular group and ask them to create a paragraph using the facts.

Illustrative example 3

Tuesday, 31 December 2019 17:02

Good teaching and learning sets tasks and selects resources that build on previous knowledge and experience and engage interest.



This is an example of the final Welsh language lesson on newspaper articles for year 5 and 6. They were able to complete this task due to the increased knowledge from previous lessons/tasks. Furthermore, this was a task on writing a newspaper article on Children in Need, which had taken place the Friday before. This meant that information needed for the article was from their own experience of Children in Need day in their school. The pupils were able to complete this task with confidence due to the knowledge they had on the subject and also lesson objectives on creating an article e.g. column. This ensures that this pedagogical principle is highly effective on learning.

Critical Reflection

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Introduction

There are 12 pedagogical principles outlined in Donaldson's (2015) report regarding the new curriculum, which will be applied in Wales in 2022. However, this assignment will critically reflect on examples of the implementation of three pedagogical principles, outlined by Donaldson (2015). The examples will focus on illustrating progress in planning and implementing three of the pedagogical principles within the first part of Professional Teaching Experience (PTE). The assignment will provide a critical reflection on the three pedagogical principles, which will include a discussion of literature on effective teaching. Recommendations for further development will be presented throughout the assignment.

The three pedagogical principles that will be discussed in this assignment are:

1. Good teaching and learning regularly reinforces Cross-Curriculum Responsibilities, including literacy, numeracy and digital competence, and provides opportunities to practice them (CCR).
2. Good teaching and learning means employing assessment for learning principles (AfL).
3. Good teaching and learning sets tasks and selects resources that build on previous knowledge and experience and engage interest.

Effective teaching

Effective teaching is one of the key aspects in regard to improvement, which is usually referred to in terms of learning outcomes and behaviours (Ko & Summons, 2013). For teaching to be effective then it requires a clear goal and the strategies for achieving the goal (Ko & Summons, 2013). Clear communication and adapting instructions to the needs of the learners is also an important aspect of effective teaching. This would come with time and understanding the different individuals in the classroom, and also knowing the best way they learn. It is believed that people learn differently, which means the 'one-size-fits-all' approach will not be effective (Haar, 2002). Barnes (2018), believes that due to teaching and learning being personal activities, this means that there is a diversity between people and that no two learners or teachers are the same. Therefore, teachers need to be personally involved regarding decisions of teaching styles and the curriculum material in schools (Barnes, 2018). Therefore, adapting teaching strategies to best fit that individual would then increase a better outcome of learning and as a result ensure better behaviour (Ko & Summons, 2013).

Effective teaching would offer appropriate and regular feedback (Ko & Summons, 2013), which ideally should be provided immediately to the individual (Huxham, 2007). For good teaching to be achieved, then the teacher requires good subject knowledge (Ko & Summons, 2013). It is important that schools establish consistency in teaching and learning (Ko & Summons, 2013), and this was evident during my placement school. All teachers followed the same marking 'codes', which presented different meanings for example: if the success criteria had been reached then this had a specific code to represent this. As a result, children were able to understand the meaning of the codes. The teachers would also co-plan lessons, which allowed for each year group to have consistency with other classes. Lesson observations also took place within the school by the members of the higher team, which would allow the team to observe consistency throughout the school.

Therefore, the literature suggests for effective teaching to be successful then it is important the teacher accepts responsibility for pupil outcomes and understanding (Ko & Summons, 2013).

However, depending on the pupil's age, then this idea might need to be challenged. It can be argued that pupils should take more of a responsibility for their own learning (Aubrey-Smith, 2017). Teachers should monitor and evaluate the results and progression of the pupils (Ko & Summons, 2013). Furthermore, if a teacher focuses on the interests, needs and concerns of the individual learner then as a result would be effective teaching (Coe et al., 2014).

Effective teaching improves the achievement and outcomes that benefits the future success of the pupil (Coe et al., 2014). Therefore, to understand if the teaching has been effective would usually be assessed by the pupils progress (Coe et al., 2014), and this is usually monitored by assessments or exams (Coe et al., 2014). Classroom observations can be another successful reflective tool for the teacher as it allows for a further understanding on the current teaching method (Coe et al., 2014). Furthermore, the content and quality of instruction would be extremely powerful for ensuring effective teaching (Coe et al., 2014). Clear instruction is necessary as it gives the pupils an understanding of the work and standard required, which could be done by modelling the expected level of work (Coe et al., 2014). Whilst on PTE, I realised the importance of showing examples of other newspaper articles before asking the year 5 and 6 pupils to eventually write their own. From showing the examples, and the standard I expected from them, this ensured that they could proceed with the task more confidently. Therefore, I agree with Coe et al., (2014), regarding the importance of modelling work.

Hattie (2008), would suggest being clear in what success means and setting challenging learning targets that then results in positive effective teaching and learning experiences. There is a correlation in what works best for teachers is similar to what works best for pupils, which emphasises on the importance of clear communication (Coe et al., 2014). In the classroom, I consistently wrote on the white board the step-by-step instructions for the lesson and by doing this the children understood what was happening throughout the lesson. I would tick each step off once it was completed, and this kept the pupils on track. However, in future I will ask the pupils to peer-review the step by asking their partner if they also agree with the completion of the step, or if the partner believes that further work is needed (Welsh Assembly Government, 2010).

First pedagogical principle

It is believed that Cross-Curriculum Responsibilities (CCR) are extremely important to the thinking, learning and life of the pupils and they should be strengthened and developed across the whole curriculum (Roy, 2016). The report implies that literacy, numeracy and digital competence within the classroom is the responsibility of all teachers (Donaldson, 2015). Primary school teachers are trained to teach across the curriculum, however the school curricula is rarely integrated (Barnes, 2018). Many teachers will make links between different subjects for specific purposes and for a short period of time (Barnes, 2018). Therefore, hopefully the new curriculum will allow room for better integration between subjects and real life (Donaldson, 2015).

There should be a theme that runs throughout the term that allows for daily experiences and creativity, which enhances the quality of learning (Barnes, 2018). The learning environment is the teacher's responsibility and should develop cross-curricular approaches (Barnes, 2018). Therefore, the introduction of a 'connecting curriculum', will offer imaginative and valuable approaches and this will provide links between individuals, subjects and experience that happens in and out of school (Barnes, 2018). To test good subject knowledge and skills is usually when applied to real-world problems, this suggests that learning is put to use in the real world (Barnes, 2018).

It is evident that the digital world has become increasingly apparent, which demands increasingly high levels of digital skill. Furthermore, to be digitally competent ensures a further

involvement within the workplace and modern society (L.C.A.H, 2018) Therefore, the report highlights the increasing need of CCR and to implement these opportunities throughout the pupils school life. Sharing and discussing learning objectives and to then reflect and review will support a deeper learning and better progress with the children's work and understanding (Siraj-Blatchford, 2013). Teachers must be optimistic if they want pupils to be engaging, happy and motivated, which means that teachers should work towards being motivated, achieving and happy people themselves (Freire, 1992)

I had the experience of teaching two core subjects Mathematics and Language in a pure form such as; division. As a result, I was informed by doing teaching subject-based learning meant that it was not cross-curricular. However, pure subject teaching can be necessary when introducing new skills, knowledge and vocabulary as eventually these are required for problem solving (Barnes, 2018). An example during PTE was the introduction of division (bus stop method) in the lesson, which eventually the pupils were able to answer 'world problem' questions (CCR- illustrative 1). Therefore, there was a number of subject-based lessons prior to the 'word problem' questions, to ensure that the pupils understood the division method.

The problem with subject-based learning is that the traditional methods of pure subject teaching for some children is that it is clearly not working, which is evident in the PISA (2018) results in Wales. The results state that Wales has remained bottom of the UK table (PISA, 2018). Therefore, it is an existing time for Wales due to the new curriculum being introduced in 2022 (Donaldson, 2015), which emphasises the importance of cross-curricular approaches.

CCR is a pedagogical principle that I must concentrate on improving during PTE (part 2), as I am aware that I have missed opportunities to use this approach. Losing a week and a half of placement due to sickness (mumps) also reduced my teaching experience that could have provided further CCR opportunities. Through researching and understanding the true meaning of CCR, I feel more confident in applying this to my lessons.

Second pedagogical principle

AfL is the method of gathering evidence for the use of teachers and pupils, which identifies where the learners are, where they need to be and how to get them there (Gardner, 2012). This technique can be extremely beneficial for understanding the pupils requirements to better their understanding and learning (Ko & Summons, 2013). Teachers need to be clear why a teaching strategy has been used and how it develops thinking and assessment for learning (Welsh Assembly Government, 2010)

Through researching different methods of AfL, it was apparent that I had successfully used differentiation, marking and questioning throughout my PTE. However, I did not use the benefits of peer-marking, which I now realise is an important method of AfL (Dunn, 2011). I would ask the pupils to mark their own work by following my marking sheet with a green pen (see illustrative example 3), and now I understand that it would be better to ask the pupils to reflect and engage upon each other's work (Dunn, 2011). Furthermore, if the pupils had not finished the task then they were unable to self-mark their work, which meant that this part of the self-assessment could not take place. Therefore, I quickly realised the importance of differentiation within the classroom as this would allow for a more accurate assessment. As a result of better planning, this meant that pupils reached the step of self-marking/assessing.

Peer assessment would encourage the children to provide considerations, valuable feedback on how to improve their work and how to be supportive of each other (Dunn, 2011). This method would allow an opportunity to discuss and explain, which would enable a higher achievement by following the learning objectives and success criteria correctly (Dunn, 2011; Lai & Hwang,

2015).

A way of ensuring the peer-assessment method would work is by using the 'Three Stars and a Wish' technique of AfL (Dunn, 2011). The children would need to provide a suggestion for improvement (wish) and also provide three positive points (stars) regarding the work. This would increase the confidence of a child and improve their understanding of the task. This technique focuses on the positives, which is the reason I will use this in future. Furthermore, it can be argued that this technique could impact negatively on low-achieving pupils (Black et al., 2004). This could be due to different reasons, such as; being embarrassed of their work and not wanting to show their peers. Therefore, this would emphasise the importance of explaining the reasoning of using this form of AfL method to the class, and also to remind the pupils that they should follow the success criteria specifically by giving positive feedback. Overtime this would hopefully be a method that the class agree benefits their own personally work.

If this method was used consistently throughout the school then the children would be familiar of this exercise (Coe et al., 2014). By allowing others to read and provide feedback is a skill that many will use throughout their life such as; observations within a professional workplace (Lai & Hwang, 2015). Therefore, this supports the idea of using peer assessment as a form of AfL. Peer assessment can be uniquely valuable due to pupils accepting feedback of their work from their peer/friend, compared to the teacher (Welsh Assembly Government, 2010) It is believed that pupils who engage in evaluation and analysis develops further knowledge and skills, in particular, artwork (Lai & Hwang, 2015; Sternberg, R & Krauss G, 2014). Furthermore, I will use this method throughout all the different subjects.

By using the marking code used by the school, this would state clearly the level of understanding of the task. There is a specific code that requires the pupil to listen to verbal feedback from the teacher, and this is usually when the pupil has shown very little understanding regarding the task. This feedback allows for 1-2-1 explanation and gives that essential time for questioning or explaining. I realise now that I could have given written and verbal feedback, as a particular pupil could potentially forget what I had said by the time it comes to the next lesson. I know I am personally a visual learning and can forget what people say very easily, which means in future I now know to also write something that would trigger that understanding (along with the verbal discussion). I will concentrate on providing formative feedback that provides the pupils with information on how to achieve the next step, which I will then follow up to see if the step has been achieved. This next step could be the 'wish' of the method 'Three Stars and a Wish' previously stated, which causes the feedback to be formative (Welsh Assembly Government, 2010).

The effective use of questioning is another form of AfL to ensure engagement and consolidate understanding (Ko & Summons, 2013), which my mentor believed I did successfully. This method is something I have reflected on and is an important aspect of the lesson. By questioning the children and using the lollipop sticks (see example illustrative 1) to choose a pupil to answer, would help with the general understanding of the class.

I also enjoyed using the 'Phone a Friend' (see illustrative 2) method, which is when a child is unsure of the answer and asks for help from someone in the class. I found this particularly useful during mathematics as it allowed for me to see if further explaining was needed on a topic. I also found that this method engaged the pupils as they wanted to be the one to help their friend. This encourages support for one and another, which is the reason I will use in the future.

Some of the assessment methods I used were more specific for the age group (year 5 and 6), compared to using the same methods on a younger age group. For example, I would not expect

a pupil aged 4 to follow my marking scheme and self-mark/assess their work. I would most likely use colours or 'emoji' faces as a form of assessment instead. However, the use of lollipop sticks would also be beneficial within different age groups, through questioning the understanding of the pupils (Black & William, 2006).

Third pedagogical principle

It has been argued that prior knowledge has been the most important factor that influences learning and achievement (Hailikari et al., 2008). The quality of prior knowledge can positively influence knowledge attainment and the capacity to apply cognitive problem-solving skills (van Kesteren, 2014). It is essential to create a learning environment that actively constructs knowledge and skills due to previous knowledge (van Kesteren, 2014).

The teacher's work of enabling effective learning must begin with understanding the pupils previous knowledge and experiences (Criddle, 2016). This is due to pupils building on what they already know through formal and informal experiences (Criddle, 2016). The teacher must assess the prior knowledge at the beginning of a topic as the information and skills could promote or obstruct the learning of the child. The prior knowledge could be a positive method of encouraging engagement and critical thinking within the classroom (Criddle, 2016).

Assessing and questioning will provide evidence of the pupils prior knowledge and if it is accurate or inaccurate. If the knowledge is inaccurate then the teacher must address this before building on new knowledge (Criddle, 2016). Insufficient or inadequate prior knowledge can negatively impact the learning from the beginning (Hailikari, 2008). Therefore, it is extremely beneficial for the teacher to determine the extent of pupils prior knowledge and skills.

For a successful thought process regarding new ideas, pupils must build on the prior knowledge they already retain (van Kesteren, 2014). Furthermore, teachers will gain an awareness and understanding of their pupils prior knowledge on a topic, which can be achieved through different types of formative assessment such as; class discussion and surveys (van Kesteren, 2014). It is important that the pupils are supported in connecting new knowledge to what they have previously learned (van Kesteren, 2014), which means that teachers should help pupils discover the interrelations between the topic and the ideas that have been presented (Hailikari, 2008). Therefore, this suggests that it is easier to learn something new if it can be related to something a person already knows.

Prior assessment results can be used to discover a number of purposes such as; pupils who are finding the work difficult, to understand the appropriate level at which to begin the topic and to group pupils based on ability (Hailikari, 2008).

By building on existing knowledge, this would increase engagement and integrate ideas in other subject areas (Ko & Summons, 2013). Building on previous knowledge is supported Donaldson's (2015) report and is something that I have had the chance to do during my PTE. For example, I taught mathematics for the week and this meant that I was able to see development and progress in the work and understanding of the pupils. I could also build on previous knowledge (see illustrative 1) and by doing this it increased the children's interest. The pupils read newspapers during morning registration, which then allowed me to build on this existing knowledge by ultimately creating their own articles through the medium of Welsh. Through various lessons building specific knowledge on writing a newspaper, the pupils were able to achieve the success criteria of creating their own article (see illustrative 3).

I believe that this pedagogical principle is extremely important at the beginning of a new topic,

as it provides an understanding on the ability of the class, which as a result is also an AfL strategy. Once the information is gathered, the teacher can create CCR experiences to enhance the learning of the pupil. Therefore, all three principles interrelate and are beneficial to the teacher and learner.

Conclusion

To conclude, I believe that this reflection process on my PTE has been extremely beneficial to understanding the different methods of ultimately achieving effective teaching. I am aware that clear communication and instruction within a creative environment will allow for a better outcome regarding the success criteria (Ko & Summons, 2013). Every pedagogical principle needs to be addressed better, however CCR is something I will personally address further. This is due to the difficulty in finding evidence to present examples, which meant that I did not accomplish this as much as I should have. I look forward to introducing new and relevant lessons that aid a child in the real world by working cross-curricular (Donaldson, 2015). From researching, experimenting and observing my mentor will provide an understanding of how to accomplish CCR successfully. Recommendations regarding my future development would be to connect what the pupils need to know (curriculum) and create a correlation to everyday life. Discussion and reflection should be embedded in daily practice for the development of teachers (Barnes, 2018). Furthermore, through reflection and sharing experiences will then result in wiser results and choices that would help a person through challenges of life presented in and out of education (Barnes, 2018).

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