

ECAD5012: Cycle 2 Professional and Pedagogical Studies: Leading the Learning: what, how and why am I teaching?

Reflective discussion of planned
Assessment for Learning
strategies used to support
teaching and learning across an
AoLE.

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What I will be doing

I am going to be looking at the use of lollipop sticks and live making during a mathematics lesson. I have chosen a mathematics lesson as it is taught everyday and I was able to teach it through three rotations. I find that mathematics is a lesson where most learners need support and guidance, for this reason I found it was best to test these strategies during that lesson. The lesson was taught to learners in year 4 which ranged between the ages of 8-9. Previously the learners had received a lesson on algebra on how to work out the equations. Within this AOLE the learners needed to develop on modelling equations involving symbols and manipulating algebraic expressions. This is what the lesson was based around. Being aware of pupil progression has also been essential in ensuring all learners are keeping up with work and understanding what they are learning before they continue onto the next task.

Assessment for Learning

The Assessment Reform Group (2002) defined AFL as: "the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get them there". (geography.org.uk. (2023). *Formative assessment - Geographical Association*). Assessment for Learning is designed to inform the teacher about the pupil's performance, knowledge and skills. This information is then used to plan lessons or change the lesson to improve pupil performance. (Muijs, D. and Reynolds, D. (2011). The four elements of assessment for learning consist of 1. sharing criteria with learners. 2. Quality of questions/ quality of talk. 3. Use and quality of feedback. 4. Peer and self-assessment. Assessment is said to be most effective when it involves early and perceptive feedback with time to make changes. When AFL is implemented effectively it reduces the spread of attainment across the whole class.

Benefits of Assessment for Learning

Assessment for Learning methodology is proving to give students more control over their learning, help boost motivation and an overall improvement in assessment performance. It benefits the learners in helping them see what they are aiming for and understand what they need to do to achieve those aims. Assessment for learning also benefits the teacher as well as it supports the teacher in gaining an insight in their learner's level of understanding of a topic. This is going to help the teacher supporting the learners in progressing. (Cambridge, (2019)

Formative assessment is recognised, as a significant strategy in raising pupil achievement. The Black and Williams (1998) review established that formative assessment leads to higher assessment results and measurable pupil attainment. This helps learners become lifelong learners with transferable skills. AFL benefits the learners in promoting confidence and having a clear understanding on learning intentions and the criteria for the best success. (Clarke, S. (2008).

Lesson Plan

Student-teacher:	Jess strong	Class / Group:	Year 4
<u>AoLE</u> or Subject:	Mathematics and numeracy	Date <i>(please note that this may be a continuous session):</i>	21 st November
Meaningful links to Curriculum (What Matters Statements, Descriptions of learning, 'previous' curriculum...)	WMS2- Algebra uses symbol systems to express the structure of mathematical relationships. PS2- I can find missing numbers when number bonds and multiplication facts are not complete. PS3- I can model problems, using expressions and equations involving symbols or words to represent unknown values, adopting the conventions of algebra. I can use inverse operations to find unknown values in simple questions. PS4- I can manipulate algebraic expressions fluently by, simplifying, expanding, substituting and factorising by extracting a common factor.		
Meaningful links across the curriculum <i>Links to other <u>AoLEs</u> or the Cross-curricular skills frameworks</i>			
Personal Targets (targets and consequent impact on learning - refer to any targets that have been identified in learning journal or weekly reflection meeting and describe the desired impact on learning) Classroom management- making sure the whole group is engaged – constantly moving around the room and supporting learners when necessary. For managing behaviour, a three-warning strike. 1 st warning is a warning, 2 nd warning is a negative point and the 3 rd warning is being sent out the class.			
Learning Intention <i>'This should focus on the pupils' learning during the lesson, rather than what they will be doing, and should be short, achievable and measurable.'</i> (Crichton, H., and Mcdaid, A. 2016 p. 196)			
Manipulating algebraic expressions by simplifying a common factor.			
Success Criteria <i>What the pupils need to demonstrate to successfully meet the Learning Intention.</i>			
Understanding that the letter represents 1, i.e 1a= 1 Simplify a long number sentence, for example, C+D+D+D+C=			
Planning for misconceptions: <i>Use this section to anticipate pupil errors and misunderstandings and your planned responses to them.</i>			
T.H, K.W, S.S, M.V Having the <u>numicon</u> out to support learners- having another board game for different challenges. J.R, T.S, F.S, M.W, E.B, L.C, C.B The learners will have whiteboards to work out their answers. G.D, E.B, B.L, B.W, O.M, R.M, E.R, E.A, J.W			

- Why Maths?
- Progression steps

Lesson plan

SEQUENCE OF TEACHING & LEARNING (Add or remove rows below as appropriate)				
Timing: <i>Break down timings into groups if appropriate. ensure pupils are 'doing' quickly and that transitions are taken into account</i>	Role of the teacher & support staff: <i>e.g., key questions, retrieval of prior learning, modelling and explanations, checking understanding, planned use of additional adults.</i> <i>Choice of pedagogical model or of the 12 pedagogical principles</i>	Pupils' learning and activities: <i>What will the pupils be learning to do and what activities / resources will facilitate this?</i> <i>Please refer to Foundation Learning planning document for details of continuous provision.</i>	Inclusive Strategies (including differentiation): <i>Reasons for and details of scaffolding.</i> <i>Types of representation in tasks.</i>	Check what pupils know, understand, and can do: <i>Key questions, types of retrieval practices, self and peer assessment opportunities, purposeful AFL strategies, live marking opportunities, planned feedback.</i>
5 minutes	<u>Introduction</u> I will be modelling on the large whiteboard the previous algebra lesson and recapping key points to refresh learners' knowledge and understanding. I will be using key questions from the previous lesson, e.g $N+2=$. I will then introduce simplifying algebra and talk through the question " <u>$a+a+a+a=$</u> ". The learners are to initially answer on their whiteboard and then we will talk through/correct it. I will ask the learners to show me thumbs up, thumbs down on how they are	The learners are going to be writing down answers to equations provided by the teacher from the following lesson to refresh knowledge. The learners are to use their whiteboards to answer the question " <u>$a+a+a+a=$</u> " as a group then we will discuss answers and different methods to get there. I will ask the learners to show me how they are feeling about the main activity by showing me thumbs up or thumbs down. <u>Resources</u> - Large whiteboard - Mini whiteboards - Pens	Differentiation- The key questions asked are differentiated to each challenge. Scaffolding- the learners answers questions individually and then I will scaffold learners when necessary.	AFL- Thumbs up, thumbs down Lollipop sticks Key questions- - What is $N+7=$? - What is $84-n=$? - What do you remember from last lesson? - What is <u>$a+a+a+a=$</u>?

- Lollipop sticks

- Lollipop sticks

- Live marking

15 minutes	<u>Main activity</u> I will have a large whiteboard set up in the middle of the table for all learners to see, we will go through a range of questions with different operations for learners to find answer in a long number sentence. Using the lollipop sticks I will choose learners to answer the question and explain how they got it. We will work through a range of strategies on the board so learners can see different methods and find what supports them best.	The learners will each have an individual whiteboard and work independently to find the answers from the questions provided by the teacher on the larger whiteboard. The learners will again be using secret squirrels to hide their answers from the rest of the group. <u>Resources</u> Large whiteboard Whiteboards Pens Rubbers Lollipop sticks Times table squares Numicon	Differentiation- The level of challenging questions given to each group. Make certain questions have a simpler form. Scaffolding- support given by the teacher when necessary. Modelling when needed.	AFL- Lollipop sticks Live Marking Secret squirrels Key questions- What strategy have you used? Did you check your answer? How did you check your answer? What is $a+a+a+a=$? Can it be made simpler?
5 minutes	<u>Plenary</u> Get learners to peer assess. Set up RAG score to show understanding. (different coloured spots around the room, children move to their assessment of understanding)	Join with another learner who has the same level of challenge and peer assess their answers. Learners are to move to different areas of the room with corresponding RAG spots.		AFL- RAG spots Peer assessments Key questions? How did your partner get on? Did they make

Lollipop sticks

During placement, an AFL strategy that was used consistently is lollipop sticks. I had the opportunity to see my teacher use this strategy in their teaching which was extremely beneficial to see. Lollipop sticks are used in all AOLE's to ensure the questioning is fair and to ensure all learners are engaged throughout the lesson. By seeing the benefits of lollipop sticks I incorporated it into my lessons to elevate teaching and ensure engagement across the whole class. Ensuring all learners are engaged is a vital part of teaching and without lollipop sticks only a few learners will consistently participate, some will have great ideas and keep silent, and some will tune out the lesson. (Hartsdown Academy (2024)). The environment created in my classroom is a safe and kind space. If a child's lollipop stick is chosen, and the child is unsure or does not know the answer. The child is supported by the teacher in finding the answers and how to get there. There are also AFL strategies imbedded within as the learners can use a peer to have support. However, in other classrooms lollipop sticks have not been as effective. Many learners become worried or stressed over them as they do not want to be chosen upon or have the attention focused onto them.

Lollipop sticks Literature review

Engagement within the lesson tends to decrease as the lesson goes on. The use of lollipop sticks will signal that the teacher is monitoring engagement and expecting everyone to participate. It avoids over eager children from making noises to give their answers. It also encourages children who do not volunteer to answer questions. This behaviour management strategy gives all pupils the opportunity to engage and interact in the lesson and display a more on task behaviour. (Howard, C. and Robinson, C. (2018). The use of lollipop sticks supports effective questioning in the classroom. The quality of questioning is extremely important in pupil learning and the environment created around them. Learners work best in a positive environment as they are able to take risks and are not worried about making mistakes. (Cambridge). In my classroom lollipop sticks are consistantly used as the learners feel safe and valued in the classroom. However, what if a learner needs furthur questioning to help them deepen their understanding. As their lollipop stick is already out, they have already had their opportunity to answer a question. It is argued that lollipop sticks should not be used to enforce participation. All questioning should be clear and challenging so that everyone benefits. The teacher can then use this to differentiate follow up questions. (Hartsdown Academy)

Live marking

Another AFL strategy I observed being used frequently in all lessons is live marking. I had the opportunity of observing live marking in both of my placements which has been extremely beneficial to my teaching and incorporating into my lessons. Live marking is an AFL strategy that can be used in all areas of learning. It ensures that learners are getting immediate feedback and are constantly being supporting in their work. Having this constant support ensure that mistakes do not become habits and there is a reinforcment of engagement to keep learners learning. For live marking pink, green and red pens were used. The pink pen gets used to mark something the learners have done well, the green is used to mark what the learners need to work on, and the red pen learners will use to write their corrections underneath.

Live marking literature review

In the four elements of AFL, live marking falls under feedback. Feedback is one of the most important aspects of AFL as it provides the learners with opportunities to improve their work or gain a better understanding. According to piaget, one of the main influences on a child's cognitive development is maturation and activity. Increasing maturation leads to an increase in childrens ability to act on their environment, and to learn from their actions. This learning in turn leads to an alteration of childrens thought processes. Live marking comes into Vygotskys scaffolding in the zone of proximal development. This refers to what a learner is able to do and what they can do with the help of a more knowledgeable other. It is here that the role of the teacher comes into play. (Muijs, R. and Reynolds, D). However, there are cautions to be considered with live marking. Such as, wasting of learning time due to learners waiting for the teacher and only fast feedback is given. The teacher is also trying to bounce around learners and can potentially focus on the corrections rather than a deeper understanding or improvements. (Evans, J. and Field, S. (2016).

Conclusion

The 12 pedagogical principles are key aspects of good teaching and learning. My AFL strategies link in with pedagogical principle 8 as they can be used across all areas of learning. It also links in with principle 10 as the learners are taking ownership of their learning as they are taking action from the live feedback and engaging in the lesson when the lollipop are in action. Both strategies have been extremely beneficial to my teaching and has elevated it to the next level. I found that both strategies has ensured that the class/group are all fully engaged and having a clear understanding on what is being taught. For future research in AFL, I would like to look into greater depth on peer assessment and the benefits of 'wait time'.

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