Engaging trainee teachers in assessment for learning: creating a pedagogy of learning.

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Objectives

▶ To explore various AfL strategies and how to implement them in the classroom

▶ To learn how to adapt to the learning needs of students and promote progress through AfL.

▶ To provide opportunities for reflection on assessment practices, and linking theory to practice as means to advance learning.

Assessment for Learning (AfL)

Task:

▶ What is AfL?

Think, pair and share

AfL

Department for Education (DFE, 2019) ITT core content framework:

▶ TS2: Discussing and analysing with expert colleagues how to identify possible misconceptions and plan how to prevent these forming and observing expert colleagues. Increasing challenge with practice and retrieval as knowledge becomes more secure. Progress check using strategies and prior knowledge. Breaking complex material into smaller steps (pp 11- 12)

▶ TS6: Discussing and analysing with expert colleagues how to plan formative assessment tasks linked to lesson objectives and think ahead about what would indicate understanding. Using various AfL strategies such as questioning, feedback, self/peer assessments, marking. Monitoring pupils' work and check for misconceptions (pp 23-25)

AfL

▶ The Association for Science Education (ASE, 2019) best practice in ITT education:

supporting trainees in critically engaging with ideas about the nature of science (NoS), how children learn, their alternative conceptions and communication in science.

▶ The Education Endowment Foundation (EEF, 2018) guidance on improving secondary science education:

encourages teachers to build on the ideas that pupils bring to lessons, promote self-regulation, modelling and using structured feedback to support pupils' thinking

Assessment for Learning (AfL)

Assessment for Learning is 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 there (ARG, 2002)

AfL is a formative assessment.

AfL supports a Constructivist learning theory

Students can reach their zone of proximal development with AfL in place.

Ten Principles of AfL (ARG, 2002)

▶ part of effective planning

▶ focuses on how students learn

▶ is central to classroom practice

▶ is a key professional skill

▶ is sensitive and constructive

▶ fosters motivation

▶ promotes understanding of goals and criteria

▶ helps learners know how to improve

▶ develops the capacity for self-assessment

▶ recognises all educational achievement

AfL strategies

- Questioning and dialogue

- Feedback

- Self assessment

- Peer assessment

 (Black et. al., 1998)

- Sharing success criteria- how can this be achieved ?

Principles of good assessment and feedback

1. Help clarify what good performance is (goals, criteria, standards).

2. Encourage 'time and effort' on challenging learning tasks.

3. Deliver high quality feedback information that helps learners self-correct. What kind of teacher feedback do you provide – in what ways does it help students self-assess and self-correct?

4. Encourage positive motivational beliefs and self-esteem.

5. Encourage interaction and dialogue around learning (peer and teacher-student. What opportunities are there for feedback dialogue (peer and/or tutor-student) around assessment tasks in your course?

6. Facilitate the development of self-assessment and reflection in learning.

Principles of good assessment and feedback

7. Give learners choice in assessment – content and processes To what extent do students have choice in the topics, methods, criteria, weighting and/or timing of learning and assessment tasks in your course?

8. Involve students in decision-making about assessment policy and practice.

9. Support the development of learning communities. To what extent do your assessments and feedback processes help support the development of learning communities?

10. Help teachers adapt teaching to student needs

Nicol (2007)

What you need to support AfL

▶ Learning objectives that are skills based

▶ Effective success criteria

In classes where the LOs are shared:

❖ The students are more focused

❖ Students can express their learning needs

❖ The quality of work improves

❖ Students' behaviour improves

❖ Students persevere for longer

(To show progress in lesson always refer back to your LO and assess students)

Effective success criteria

❖ Are linked to the learning intention

❖ Are specific to an activity

❖ Are discussed and agreed with pupils prior to undertaking the activity

❖ Provide a scaffold and focus for pupils while engaged in the activity

❖ Are used as the basis for feedback, self and peer assessment

(To show progress in lesson, refer to your LO and link to SC)

Questioning

Did you know?

► Teachers ask up to two questions every minute, up to 400 in a day, around 70,000 a year, or two to three million in the course of a career.

► Questioning accounts for up to 1/3 of all teaching time, second only to the time devoted to explanation

► Most questions are answered in less than a second. That's the average time teachers allow between posing a question and accepting an answer, throwing it to someone else, or answering it themselves!

► Weaker pupils are given less time than this!

Did you know?

- An average of one spontaneous question each lesson came from pupils...and that was more likely to do with procedure than with learning (Wragg, 2001)

- Research has found, however, that increasing the wait time improves the number and quality of responses to questions. Wait time can vary depending on the type of questions.

Smith (2007) suggested a wait time between 3 – 10 seconds

Ecclestone (2008) suggested 7 seconds

Clarke (2008) suggested the use of talking partners in order to socialise students

AfL

- Video

- Listen to the video and be ready to share with others.
- What are the key point from the video?

Discussions using PMI

What's the **_purpose_** of good questioning in a classroom?

❖ To **_interest, engage and challenge_** pupils

❖ To check on prior knowledge

❖ To stimulate recall and use of existing knowledge and experience in order **_to create new understanding and meaning_**

❖ To **_focus thinking_** on key concepts and issues

❖ To **_extend pupils' thinking_** from the concrete and factual to the analytical and evaluative

❖ To **_lead pupils through a planned sequence_** which progressively establishes key understandings

❖ To promote reasoning, problem solving, evaluation and

Open questions:

✓ encourage students to think beyond the literal

✓ enables a teacher to develop students' understanding and promote critical thinking (divergent assessment)

✓ allow for a range of responses and make progressive cognitive demands on students.

The **type** of question and the **way** that we question makes a difference to how successfully questions probe student understandings.

We need to:

- give students time to respond (discuss their thinking in pairs or small groups)

- more effort must be spent in framing questions that are worth asking.

- allow students to respond to teacher questions in a variety of ways (writing the answers, concept map)

- encourage students to ask as well as answer questions.

- NOTE: adopt no hands up policy when asking student questions

What did Bloom discover?

- ***Evaluation*** being able to judge the worth of material against stated criteria. Sees pupils judging, assessing comparing and contrasting

- ***Synthesis*** being able to put together separate ideas to form new wholes, or to establish new links

- ***Analysis*** being able to explain how the various parts fit together, infer and analyse

- ***Application*** using learnt information, ideas and skills in new topics/situations.

- Comprehension where pupils start to understand the basic information so that they can explain it

- ► ***Knowledge*** or recall of bits of "stuff"…..can be the foundation for higher levels of thinking

Revised Bloom's taxonomy

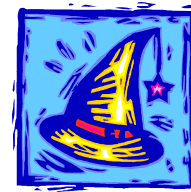- Refer to the revised version

Edward de Bono's six hats ideas

Approach is an effective way of getting students to answer questions from a variety of perspectives.

▶ Fact-gathering (white)

Gut reactions and feelings (red)

Negative points (black)

Positive points (yellow)

Creativity and new ideas (green)

Organising the thinking (blue)

Use the following words to develop your questions

1. Knowledge
-Who, What, Why
-Can you tell why
-Describe

2. Comprehension
-State in your own words
-What do you think might happen next?
-What does this mean
-What is the main idea?
-Give an example
-Can you define?
-Explain
-Judge
-Classify
-What difference exists between.........?

3. Application
-predict what will happen if.......?
-what factors would you change if......?
-judge the effects of.......?
-Tell how, when, where, why........?
-What questions would you ask of......?
-What would result.....
-Do you know another instance where..?

4 Analysis
-How is..........similar to ....?
-Can you compare your.....with that presented by........?
-Can you state the difference between.......
-What motive is there.......?
-What conclusions can you make.......
-What is the relationship between.........?
-What are some of the problems of.........?
-Can you explain what must have happened..........?

5 Synthesis
-What would happen if.......?
-How many ways can you.......?
-Can you create.......?
-Can you make up..........?
-Can you design a ....?
-Can you develop......
-Choose

6 Evaluation
-Is there a better solution to.......?
-Judge the value of...........
-Can you defend your position about......?
-What changes to......would you recommend?
-What do you think about.....?
-Find the errors with.........?
-Compare or defend........?

Task

- Choose a topic of interest in your subject area and develop 6 questions using Bloom's taxonomy question prompts from low to high order questions.

- You have a mixed ability class (set into low, middle and high abilities). Decide the groups of students you would assign the different questions and state your reasons.

- Come up with likely answers you think students can give to your questions when they are asked.

- Now compare what you have done with the next person/ Feedback/think-pair-share

Research outcome

- OFSTED (2007 cited in Black et. al., 2010) stated that leaving assessment for teachers alone is a weak aspect in teaching. This implies that students must be involved in leading their own assessments and become independent learners.

- Dhindsa, Khalid and Waldrip (2007), in a study on students' perception of assessment in science lessons acknowledge that students agree assessment take place in their classroom but their results suggest that improvement is needed in the way students are assessed to maximise their learning.

Feedback

Feedback

▶ Oral feedback

▶ Written feedback : comment only marking; comments and grades

Research indicates that oral feedback is more effective than written feedback?

Feedback among students: talk partners; group work; think-pair-share.

Effective Feedback

► Feedback to any pupil should be about the particular qualities of his or her work, with advice on what he or she can do to improve, and should avoid comparisons with other pupils.

Most Schools use the following in written feedback:

WWW: What Went Well

EBI: Even Better If

These can be used for teacher feedback and students self and peer assessment

Characteristics of effective feedback

- Feedback is more effective if it focuses on the task, is given regularly and while still relevant.

- Feedback is most effective when it confirm the pupils are on the right track and when it stimulates correction of errors or improvement of a piece of work.

- Suggestions for improvement should act as "scaffolding" i.e. pupils should be given as much help as they need to use their knowledge. They should not be given the complete solutions as soon as they get stuck so that they must think things through for themselves.

- Pupils should be helped to find alternative solutions if simply repeating an explanation continues to lead to failure.

- Feedback on progress over a number of attempts is more effective than feedback on performance treated in isolation.

- The quality of dialogue in feedback is important and most research indicates that oral feedback is more effective than written feedback.

- Pupils need to have the skills to ask for help and the ethos of the school should encourage them to do so.

Research on feedback

Min (2008) argues that students can also be trained in peer feedback so that their feedback can be as effective as their teacher. This implies we must create opportunity in lessons where students are involved in questioning and dialogue and giving feedback to each other.

Zone of proximal development- Vygotsky

Self and Peer assessment

Classroom strategies to support self-assessment

1: Modelling using exemplars

2: Questioning skills

3: Self-assessment "tools" – graphic organisers such as web diagrams; mind maps; venn diagram (different-same-different in the 3 circles); level ladder; PMI (plus, minus and interesting); Triangles (what I have seen, what I have heard, what I would ask now, what I have done); mark schemes.

4: Reflection as a process for closing the learning gap

5: Response partners

Peer assessment

❖ Some of the strategies highlighted in the self assessment section can be used for peer assessment.

❖ Students can peer assess their work using mark schemes provided.

❖ This can also be through using success criteria in the lesson.

❖ Peer assessment via feedback

Lesson planning

▶ Plan a lesson which consider opportunity for all the AfL strategies.

This must include:

▶ Title of lesson

▶ LO and Success criteria

▶ Questions developed using Bloom's taxonomy

▶ Feedback strategies used

▶ Self assessment

▶ Peer assessment

strategies for progress check must be highlighted

Theory/practice………………