Strategies to improve student achievement and performance education essay

In relation to teaching, assessment is the judgement made by a teacher of each individual pupil's, with the inclusion of homework or independent learning. This is matched to educational criteria to assess how the pupils are progressing. According to Dymoke and Harrison (2008) one of the main functions within secondary school is to make these judgements in relation to grades, knowledge, skills and attitudes of each and every pupil, continually pushing each and everyone to perform their personal best. Assessment appears to saturate the educational world for this very reason, with the emphasis on identifying strengths and areas of weakness.

Within science there is much to assess, areas include: homework, class work, practical skills as with Individual knowledge and understanding within the scientific domain. Literacy, numeracy, and ICT skills, all of which are required to do well in science, should be included in the assessment process. Behaviour and relationships with peers may also be judged, such as attitude to learning and attitude to behaviour.

There are many reasons behind assessment, as expressed by Tanner and Jones (2006) assessment can form the accountability of schools and LEAs (local educational authorities) for the progress of pupils and possible selection for university and or placement in the work force. However assessment is primarily a government requirement in the sense of tests and GCSE examinations or equivalent. Assessment also offers the teacher the ability to monitor each child and their progress. The teacher must be accountable for the progress within their classroom, for this reason assessment can provide key information to be utilised in forward planning of

subsequent lessons, so pupils can engage and gain access to learning that not only challenges their ability but provides room for improvement.

As a trainee teacher, prior to placement, my view was in contrast to that of (Dymoke and Harrison (2008) whereby assessment was an area which was tacked on to the end of a unit or as part of formal assessment such as examinations, thus providing evidence of understanding and learning taking place in a given subject. However as Shilvock and Pope (2008) point out assessment has become an integral part of pedagogy. In practice it is a tool used throughout the lesson as an important role in being able to recognise both achievement and progression. Pupils are the centre of the learning process, being fully aware of their own abilities and targets to reach. This ultimately paves the way forward in their thinking and learning, through discussion, as assessment becomes part of the daily process.

Assessment is not a new activity or requirement, but has more recently been the focus for teachers who are seeking to improve their teaching ability and the outcome of their pupils, thus helping to raise the standards of pedagogy and indeed the school. The introduction of APP (assessing pupils' progress) has simply brought the area to the forefront. As ofsted (2003) point out assessment training in higher education is both informative and central to practice. However the importance of finding out what pupils already know, and utilising this information to influence the planning and implementation of each lesson has not always been the main emphasis during observation of already established teachers. The focus is, however, on learning objectives and outcomes, which are differentiated to suit pupil requirements. However, from observation these are rarely linked to individual pupils, but more so to

the scheme of work that is being taught and the level descriptors associated, or so it would seem.

Summative assessment comes under the umbrella of assessment of learning, for example the summing up at the end of a unit in the format of a test. The result of which is fed back to the pupil and these results are used to make judgement on the pupil's performance with regard to national standards. The results of which are invariably used to find out where pupils are in their learning. According to Fautley and Savage (2008) this type of assessment is instructive and generally follows a pattern of block teaching then testing. Fautley and Savage (2008) go on to explain that this is typical of summative assessment and has been utilised within the education system for a long time. At first glance this may look like what was being taught within a specific unit is being tested, however another glance may draw attention to the teaching of the unit itself that is being tested. Formative assessment comes under the umbrella of assessment for learning. This type of testing is not dissimilar to summative assessment but the results are used to plan the way forward. From here individual targets can be set based around pupil performance. This can be used as a guide in decisions made on where pupils are in their learning, along with the ability to get where they need to go to improve, as laid out by Tanner and Jones (2006)

Assessment for learning helps to improve assessment of learning by being the centre of pedagogy which enables pupils to actively take part in their own learning and mapping of progression. Sue Hackman, chief advisor on school standards, states " APP is all about knowing enough to make rational judgements about where to target resources and when to offer pupils

assistance". With the implementation of APP both pupil and teacher can, ultimately work together to implement strategies for learning through scaffolding and target setting. According to Shivock and Pope (2008 p55) assessment, if implemented correctly, can help pupils to not only meet, but exceed expectations through setting high standards and motivational lessons that provide responsive teaching. As a trainee teacher development of assessment strategies has become a vital role in being able to track learning and progression, whilst getting to know individuals. APP can be seen as the linking of formative and summative assessment, to be used instead of rather than running in conjunction with each other.

Throughout the placement experience it has become apparent that assessment strategies and criteria are fully connected to learning objectives and outcomes, as with the national curriculum and their generic objectives. The latter often requiring some adjustment to match the learning needs of individual pupils. Opportunity for assessment clearly needs to be pinpointed throughout sort term, medium and long term planning to encompass a range of achievements. Assessment strategies used have also included wall displays such as level ladders and laminated assessment criteria, which have been directly linked to bloom's taxonomy promoting stems of lesson objectives in the form of being able to describe, analyse, explain and link ideas. This of course is only useful if used in conjunction with the lesson objective and attention is drawn to them in terms of what is expected to progress to a specific level. A copy of this can be seen in the appendix and is provided by Grevatt (2007)

APP is just beginning to appear as a new structured approach to pupil assessment. As discussed previously, this is not just about assessment for learning but the whole package where evidence of pupils attainment is required both written and orally. Recorded evidence is reviewed, on a regular basis, and judgements made accordingly. Evidence will also be used to consider if performance is higher, lower or secure in meeting requirements. Where APP has begun to be integrated into the classroom, levels are cited in assessment frames which include: thinking scientifically; effects of society on science; communicating and collaborating in science; scientific investigations and finally evaluating scientific investigations. This creates a language which allows for a dialogue with pupils about their strengths and weaknesses. So far these have proved quite difficult to implement, primarily due to the quantity of information which needs to be absorbed, but more importantly the lack of individual training within this area. At present the criteria has been broken down and reformatted into pupil speak, being able to be accessed by both pupil and teacher accordingly. (Copies of these can be seen in the appendix)

Problems encountered have mainly been a direct result of running both types of assessment together. Criteria is often varied or not connected and so presents a time consuming exercise. Once APP has been fully integrated to the whole school, teachers will be able to focus on one area for the purpose of recording evidence. This in turn will ensure the mapping of progression whereby pupils, and their teachers, know what they can do and what their next steps are. This is of course only useful if marking is also done regularly, with a set target for the assessment process to be educative.

Consistent with Tanner and Jones (2006) I have found marking of pupils books a challenging area, primarily due to inconsistencies within the department on how and when books are marked. On many occasions it has been seen that books are quite often not marked for long periods of time thus proving difficult to track the progress of an individual. This has certainly been prevalent in reports for ' good assessment in secondary schools' as provided by ofsted (2003). Ultimately this has an impact on school reports and parents evening where generic, insipid descriptions of pupil achievement have often been given. As a trainee this has had a strong effect on my own learning and understanding of how assessment is used in school, other than through testing at the end of a particular unit. I have seen little evidence of tracking other than baseline data from previous key stages and the use of CATs, (cognitive ability tests) or for the purpose of EAL, SEN and those that are gifted and talented. For this reason the implementation of full tracking, as in the tools of APP, would prove invaluable. This not only helps to build a picture of the whole person, but can instantly show the progress of each pupil, providing an insight into areas of strengths or weakness.

Other areas for concern have shown that assessment can often hinder effective learning, due to the encouragement of learning by repetition or without depth. Black & Wiliam (1998) suggest that continual assessment can have a negative impact or create a competitive environment which in turn can de-motivate some pupils. This in turn can have the effect of labelling certain pupils into categories or abilities that may differ outside the assessment field. This was prevalent during placement, whereby many pupils seemed only too interested in the level or grade they got for the test,

not actually what they had learnt. Occasionally this was used as a means to decide who was top or bottom of the class. For this reason it is imperative that pupils understand that the levels given are not a reflection of how clever they are, more so the stage they are at, and the speed at which they are learning. Everyone learns at a different pace and therefore some subjects may need revisiting or looking at from a different angle or method to gain full understanding. It by no means has any reflection on a pupil's ability to learn.

Assessment should not just involve testing of a given topic or unit, but more so incorporate observation, written, oral and practical skills within science. Although this is not always obvious, as a trainee, when observing qualified teachers, it soon becomes an important and key role to gaining valuable information as to how teaching practice is progressing. Probing and questioning, especially target and rich questioning, has become topical, being beneficial for the learning process of an individual or the class as a whole. Using inverted or open ended questioning is more favourable, as through discussion can show a deeper understanding and reasoning rather than just recalling facts. Questioning in the format of pose, pause, pounce and bounce has provided an arena to learn from each other. Subsequently all pupils can be involved, whilst misconceptions can be corrected through the guidance of the teacher. This has also provided immediate feedback enabling pupils to feel confident to move forward in their thinking and ability, contributing to deeper learning and understanding taking place.

Liversidge et al (2009) point out that above all, assessment needs to be valid. For example if a pupil has achieved a defined outcome, which has

been linked to the learning objectives, this then forms the first part of assessment within the class. As a trainee teacher this has proved invaluable as the first step to observing learning taking place. For this to be effective, it is a requirement to link questions to the objectives to draw out deeper understanding. Constant referral to learning objectives has proven to be a key aspect of assessing the whole class. This has also shown to be of great use when linked with target questioning to fit the appropriate level of a particular pupil. Furthermore predetermined questions often lead onto additional open ended questioning to cover the basis of the objectives. An example of this, used in class, can be seen as power-point slides the appendix. This has been very successful, as pointed out by Petty (2009) in assessing knowledge on what you are doing at the time. Although competence in this type of questioning comes with plenty of practice, knowing your pupils, confidence in subject knowledge and keeping the pace of the lesson on track, enables this type of assessment to flow systematically. Alternatively there can be a danger of trying to fit too much into a lesson, resulting in the loss of objectives, meaning or relevance behind what was actually done. In accordance with Dymoke and Harrison (2008), whilst on placement, this has been an area which is repeatedly reviewed, continually taking into account the necessary three part lesson plan, with constant reflection of tasks set for a particular objective to be met.

The use of peer and self assessment can encourage reflection and ownership of work, where necessary improvements can be seen with immediate effect. More importantly, Petty (2009) suggests that grades can often be remarkably improved when used in the right context. In theory Black and

Wiliam (1998) agree with this concept, albeit their research advises that teachers do not always use these simple but powerful strategies. On the other hand repercussions can involve pupils not wanting to swap work with each other. Generally pupils are honest, although critical, when pointing out strengths and areas of weakness, as in two stars and a wish, of their peers and so tend to enjoy this type of feedback. Formative assessment can be fun and engaging, as in the use of mini whiteboards, without pupils even realising they are being assessed. Both can provide immediate feedback of the class as a rule and an indication of who understands and has met the learning objectives. A range of assessment for learning tools to enhance lessons can be seen in the appendix. Many of which can be used to inform the basic structure of the following lesson, for example: recapping areas of difficulty, thus bringing everyone up to speed and at the same stage in progress prior to moving forward to more difficult concepts.

In conclusion targets need to be explicit, focusing on the positive and including areas for improvement. Judgments should be transparent so pupils are able to recognise quickly how to move forward. The implementation of ' SMART' targets in conjunction with the objectives set, advising " I think you are able to do this…" and " to improve you must be able to…." these are clear and concise.

Whilst this sounds relatively simple it is clear through teacher training that assessment is a process of making judgements, through the aid of national criteria. Evidence of which is to be used by pupils and teachers to make decisions on where learners are, how to progress in their knowledge and learning, whilst giving the best option and advice on how to do this. It is also

worth remembering none of this will make a difference if the evidence from assessment is not used in the correct manner.

To make learning meaningful, assessment of any format needs to convey progress to pupils. In agreement with Dymoke and Harrison (2008) assessment is at the heart of pedagogy, and should be the focus of every lesson to enable future lessons to be relevant and learning to take place. Formative assessment should play an essential part in determining the nature and structure of activities which clearly support the lesson objectives. Summative assessment is more prevalent when considering performance of the school, class sets and individual pupil performance in terms of levels when completing official assessment periods as in end of term or unit testing. All teachers need to be involved in the in-service training on assessment as an everyday tool with the focus on formative assessment, how to implement it and what to do with the information. The only way for this to make an impact is to keep evidence and records of assessment on a constant and consistent basis. This information can be assessed using national criteria which in turn can be used to show how pupils are progressing and what is a requirement for them to move forward. Without this record of individual pupil progress the core of the classroom tends to become invisible and therefore cannot improve within their ability level and the system will simply not work. DCSF (2009)