

P.41 Evaluating the contribution of Activote within the classroom

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Aim

To investigate the effect that using Activote (linked to the Promethean Whiteboard) can have upon the learning process.

Background – School, Teacher, Year Group

Hunwick Primary is an oversubscribed rural village primary school in NE England. Each classroom is fitted with fully interactive whiteboards, with an Activote facility installed.

The Cohort group were a mixed Year 5/6 class with two pupils on the SEN register, who will be referred to as CH/RH, respectively.

The research was carried out in the Summer Term, 2005, after SAT's. Prior to this, I had taught at the school for a period of two years, having previously gained considerable experience teaching Year 5 and Year 6 classes individually at another school, as well as being responsible for the subject area of ICT.

The study originated from the following premise:

"In order for improvement to take place, the child must first know the purpose of the task, then how far this was achieved, and finally be given help in knowing how to move closer towards the desired goal or 'in closing the gap' " (Sadler, 1989).

This research focuses on using ICT as a vehicle to make assessment an effective, instant and efficient process in order to facilitate understanding.

Progress

The case study was based on incorporating the Activotes within a numeracy lesson. The interactive whiteboard was used to display the pre-prepared Activ Studio 2 flipchart containing 8 Maths questions based on the Year 5 National Numeracy objective to use decimal notation for tenths and hundredths. By Year 6 children would be expected to consolidate their understanding with regard to this learning objective and further apply it to using decimals up to the thousandth digit. Throughout that week we had been using decimal notation when solving problems involving metric measurements and reading scales. I had integrated the use of Activotes within our usual classroom routine since the beginning of the academic year, so using the devices as part of the lesson was now established and common practice for the children. Indeed, I now include it in weekly planning during the oral and mental starter. The reasons for this were twofold. Firstly, it would provide me with a record for each individual pupil that would allow me to assess a particular Learning Objective that we had been working towards, which could then be used to inform my following weeks plan. Secondly, due to the format of using Activotes it gave the children practise of using mental methods of calculating answers within a limited time, which is a requirement of the SAT's Mathematics examination.

Evidence of Change

The value of incorporating the Activotes in this type of exercise can clearly be seen when examining the rich data analysis contained in the automatically generated spreadsheet. As a prerequisite, I would like to provide a brief context in which these results were obtained. Firstly, even though the children knew that it was a test situation they seemed quite relaxed due to the fact that they enjoy using the Activates, for example,

"The best thing is that people can't copy and it's more fun". NG

As it was a test there was silence in the classroom, with the children having the motivation of a Class Point if **everyone** answered the question successfully. The only talking that occurred during the session was after everyone had voted and some children would ask their partner what they voted for. Finally, it was noticeable that some of the children would glance to their partner's control pad to try and see in which direction their thumb moved in to register the vote.

It is apparent from the scores that the majority of the class have made the same mistake for question 1. Perhaps, this could be attributed to mishearing the question/ answers as I twice read it out aloud (as they would hear during a Mental Maths test), misreading the question or it being a genuine misconception with regard to decimal numbers. Whatever the reason, the advantage of using the Activotes was that I was immediately given this information by means of the percentage of votes for a given answer. Due to the speed of this process, I was then able to provide guidance by directly questioning individual children who obtained an incorrect answer. Thus, lending support to Sadler's (1989) notion that,

"the child... be given help to move closer to the desired goal or 'in closing the gap' "

The reason that I decided to address the problem instantaneously was due to the large proportion of children who actually all got the same incorrect answer (voting: A). It is evident that this was rectified as 100% got a similar question right in their very next answer. When asked for their opinion during a VLE (Virtual Learning Environment) discussion group, some children felt that this was a real advantage of using Activote, as:

"the teacher can get everyones answer instead of one and then can help someone to improve who has'nt got it write." AC

"The best thing about The Activotes is you now (know) if you have got the answer right or wrong instantly". LH

The fact that I was able to direct questions towards pupils who might be less reluctant to offer answers is, in my opinion, perhaps the most powerful aspect of using this specific ICT teaching tool. This assertion was again supported by feedback provided by the children during a VLE discussion group. For example, when asked to name the best aspect of using Activotes here is a selection of their responses:

"It is good because you have got the element of disscression so if you don't want someone to know your answer they can't see it." SP

"The best thing is that you can vote in silence and with out people shouting out and giving you the wrong answer." LW

"The best thing about acti vote is that you don't have to shout your answer out aloud, because if you get it wrong then you feel embaressed." JG

"The best things are that you don't need to make any noise to say the answer" JL

"i agree with jack :}" AL

"You dont have to put your hand up because that makes your arm hurt and sometimes you dont get asked for your opinion." LD

Apart from Question 1, in general, the results were as expected with the children only really struggling on the more difficult Question 7, which I decided to go through during the plenary of the lesson to keep a fast moving pace for this initial mental start of the lesson. The children's

responses when asked about the most appropriate time to use Activotes where again most insightful and lend credence to my approach:

"I like using it at the end of a lesson because it helps you to revise what you have learned during the lesson." LD

"I think that the end of a lesson because we have just revised what we are going to do on the session. CH

"at the end of the lesson so that the teachers know that you are learning" RW

"at the beginning because because every ones brain needs warming up" AL

Conclusions and recommendations

Through my experience I believe that Activotes can have a positive influence for SEN children in relation to Mental Mathematics; however there are some conflicting results. If we analyse the results of Pupil RH, they show that she achieved 5/8 for this learning objective. Furthermore, Pupil RH made dramatic progress in this area throughout the year. At the start of the year she would tend to attain a score of less than 5/20 for the weekly mental maths tests. The improvement is reflected in her score for the 2005 mental maths SAT's test where she achieved a mark of 13/20. Obviously, there are many different factors involved in a child's development, but I think that the practise of using Activotes (under test conditions) to be significant.

The results for Pupil CH are as expected due to the severity of his learning difficulties. In spite of that, he also managed to get Question 2 correct following teacher intervention.

- After using the devices throughout the academic year I would strongly recommend their use for mental arithmetic. As one of the pupils commented,

" I think a maths lesson because you have to work out the answer in your head on the hard questions!" CH

- In response to these comments:

"give people a second chance so if your finger slips or you press the wrong answer you can change it." AC

"maths because there is a time limit on the activ votes like there is in the mental maths tests" AL

When using Activotes in the future, I would utilise the facility in Activ Primary 2 that allows the children to vote again. This allows the children more thinking time and lets them change their answer. In addition, there is a tool that automatically turns the page of the flipchart. This can be set to a default period of time. Again, this restriction of time is a requirement of the SAT's Mathematics examination.

Future research could focus on other areas of the curriculum, particularly Science due to the number of multiple choice type questions on 2005 SAT's examination. Another way in which the children like to use it is:

"Spellings, because you can see if the spelling looks right." EP

Also, the question of anonymity is obviously a contentious issue. But as in line with Sadler (1989), if a child knows, 'the purpose of the task, then how far this was achieved,' the teacher can then help to move the child towards the 'desired goal'.

Finally, the following comments summarise the contribution that Activotes can have within a classroom:

"They are Quick, Fast and Easy." EP

"I think the best things about the activotes is that you can compare your marks to your old ones/other peoples." CH

"Gives the teachers a break from all the marking and stress!" TS

References

Sadler (1989) cited in Clarke, S (1998) *Targeting assessment in the Primary Classroom*.
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