

## **P.45 Evaluating the Contribution of Activote as a Formative Assessment Tool**

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### **Aim**

To evaluate the use of Activote as an effective assessment tool.

### **Background**

Hartside Primary School is located in Crook, a semi-rural, disadvantaged town in the NE England. Each classroom is fitted with Promethean interactive whiteboards, with an Activote facility installed. The use of Activote as a teaching school has been embedded in the curriculum, and teachers have explored ways of using it creatively as both a teaching and assessment tool.

The class of 26 Year 6 pupils, with a wide range of abilities, includes seven pupils on the SEN register, have used Activote across the curriculum throughout year 5 and 6.

The research was carried out in the Autumn Term 2005, using Activote for assessment and consolidation of work in mathematics, spelling and science. The children responded with enthusiasm and appeared to recognise its value when assessing the children's skills and knowledge.

### **Expectation and Intended Improvements**

Having used Activote for two years in Year 6 as a teaching and assessment tool across the curriculum, I recognised the system as a fun and quick way to access their understanding and the children's progress. In addition, in PSHE and Citizenship, Activote has been used to gather opinions and values. Children are comfortable using the voting system and visibly enjoy the process.

- It often appears that the children perceive the assessments as a game, rather than an assessment procedure. I was keen to know what impact this had upon the accuracy of the assessments.
- Using the system in maths to assess children's mental skills and understanding of concepts as well as science, I considered the impact and value of sharing the results of their progress through the analysis of Excel data, once their answers were exported.
- As a summative assessment, I was keen to evaluate the true value of Activote in terms of its accuracy when assessing children's learning.

### **Implementation**

The children were provided with a series of mental maths test based on the SAT mental arithmetic tests. Timings were set according to question type, with 5 second, 10 second and 15 second durations. The children discussed their answers at the end of the test as we addressed answers and strategies applied. Children analysed their results, which had been exported into Excel, and identified areas for their individual improvements. Science tests were also completed, with questions based on the multiple choice options of the SAT papers. Results were again discussed, exported into Excel, and areas for improvement were identified. Children were provided with their results, which they collected for tracking purposes.

### **Gathering Evidence**

Assessment tasks for mental maths and different concepts in number/ shape (area/ volume), ratio and proportion were incorporated into lessons. Although intended for plenary activities initially, they became a mental starter activity in anticipation of the follow up discussions work to address misconceptions or gaps in their understanding.

Science Activotes were prepared to test knowledge and understanding of the topic taught, 'More about Dissolving' and tested understanding of evaporation, condensation, dissolving etc. Scientific enquiry was explored through questioning and children responded to questions relating to fair testing, reliability of result, control and variables.

Results from the tests were shared with the children in the form of Excel.

Children completed a questionnaire based on their response to Activote and allowed them the opportunity to explain how they think it should be used and how it reflects their learning. A range of responses were collected electronically and by paper and pen – their preferred method. Additionally, comments in discussion, and during the activities were collected for evidence.

## Key findings

Morale remained high throughout the tests. Children were overall enthusiastic and keen to improve upon their marks. They actively participated in the sharing of strategies and wanted to explain how they had got the answer right. In most children, it instilled a sense of achievement. Many children sought ways to improve their skills through questioning, revision aids and/or partnered talk.

- In almost all cases, children perceived the tests and assessments as 'fun'. Several children described the activities as 'a game'. Although some children said it made them feel nervous, they remarked that they enjoyed Activote. Competition was created between some children (higher achievers), although they felt this was 'good', as one explained:

*'We try to beat our own score, but I want to beat Luke, Kurt and Emma too. If I don't, I want to know how I can do better the next time...so I will then. I think Activote is good for making me want to do the best I can...'* Dominic

Although children talked of it being 'like a game', their performance reflected that they were keen to achieve and correctly answer the questions. Although it removes the pressure of the test situation, all individuals talked about it being a test, and saw it as a formal assessment. The process seemingly creates an enjoyable test situation.

- Interestingly, children admitted when they had 'guessed' rather than applied strategy or knowledge. In almost all incidents of children randomly selecting an answer, they were incorrect. As one child explained:

*'You've got a 25% or 20% chance of guessing it right, so you're most likely to get it wrong. If you get it right, you'll probably get it wrong the rest of the time 'cos you can't be right all the time!'* Kurt

When children randomly selected answers, their total marks were nevertheless a realistic indication of their ability.

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- Children with Special Educational Needs, specific learning difficulties, tended to guess at the answers, using random selection of an answer. This method was consistently applied in the case of 3 of the children. One child remarked:

*'It makes me panic and I need to press one. I just guess. I got two right though before.'* Jodie

There seemed to be much evidence to suggest SEN children, under pressure in this test situation, achieve less than other children. They consistently chose random answers and made little improvement to their scores over the period of time.

- Importing results into Excel seemed to have a positive affect on most children. Higher and middle achievers claimed seeing results did make them want to improve. In some cases it raised their confidence, giving the impression of success. Children could clearly see where they needed to improve, and wanted to know how they could get there. One child commented:

*'I think you need to know how you're doing. When you see the greens, you know you can do it. When you see red, it's horrible, but you know that's what you need to improve' Rachel C.*

All children saw the process of discussing results as constructive, with the exception of SEN children. Children with learning difficulties showed signs of embarrassment at the analysis of their results. Comments collected from five of the children on the SEN register reflected disappointment and negativity:

*'I find it hard because you need to read it (question) fast. I got some wrong because I was slow. Some might be green if I had more time I think' Elizabeth*

*'My results look bad don't they? I know everyone else will do better than me because I guessed on most.' Jodie*

Sharing results is an essential process for children to recognise areas for improvement, whilst celebrating success and progression. With the exception of special needs children, this was seen to be a positive experience.

## **Conclusion**

As an instant access tool to measure understanding, Activote is simple and effective. With a constant drive towards involving children in their own self assessment, the sharing of data from their results does inform them of their progress and identify where the children need to improve. Activote can be seen as an assessment of learning, a summative assessment method which indicates what children know and understand. But there is also strong evidence, through the way in which it was used, to suggest that it is also an effective assessment for learning. When it identifies where the children need to be moved on to, by involving the children in the own learning, they recognised next steps in learning. Children in this case were keen to take responsibility for their own learning. Most children felt that it did raise their self esteem and were positive, despite not always being right. Almost all children were highly motivated and with instant feedback, they asked questions in order to find out how they could get their work right next time. From the arising results children identified what they needed to know and understand. This was taught, and children were active in the learning process. It is then that Activote is most useful, when used as a tool to enhance a lesson, to actively encourage children to raise questions, share their strategies and seek ways for improvement. The children in this case, all became active learners. When used to support teaching, providing children with evidence of their performance, it works successfully.