

P.18 Evaluating the effectiveness of the interactive whiteboard in the introduction and teaching of the concept of measure in the reception class

Sam Leonard, Willington C of E

Aims

The purpose of this investigation was to observe and evaluate the effectiveness of the interactive whiteboard as the main teaching tool to introduce the concept of measure to reception children. The study focused upon the impact of the whiteboard on low attaining children within the group.

Background

The research was undertaken in a reception class of 27 children within a rural primary school in county Durham. Within the class there is a special needs assistant and classroom assistant who observed and made notes throughout the lessons. I have experience teaching across key stage 1 and key stage 2 age groups, but has recently joined reception as part of the foundation stage.

The research focused on a group of five children regarded as having special educational needs or low attainment.

Strategies

The research was based on a numeracy lesson in which the concept of measure was introduced using the Promethean whiteboard and active primary software. The strategies employed to evaluate the effectiveness of the whiteboard were observations, questioning techniques and written notes.

The lesson began with a warm up mental activity in which the children were asked to make a particular number using number fans and then to make one more or one less. The mental work was not linked to the main teaching activity which followed. The children were introduced to the concept of measure through structured questions to gauge existing knowledge and understanding.

Using images of animals and common objects from the picture bank facility within the software package, the children were presented with a large animal and a pile of images of monkeys. The children had to use the monkeys as a unit of measure to calculate the length of the pig, cow and the height of the Giraffe. By physically moving the monkeys and placing them upon the image the children were able to measure, saying the pig is 8 monkeys long for example. The children were then engaged in a practical activity in which they used their handprints as units of measure to calculate the length of various objects in the classroom.

Expectations

Prior to the lesson, discussions were held with the teaching assistant regarding possible outcomes from the lesson and how the low attaining children would understand the concept. I expected the children to find difficulty in the practical activity involving using their handprints, particularly as most have problems understanding and recognising numbers. I also believed that they would have difficulty in understanding the idea of measure.

Observations and conclusions

The children in the focus group responded positively to the activities on the whiteboard. All were engaged in watching other children demonstrating how to measure for significant periods of time, and three children from the group came to the board to measure an object.

The children were motivated and enthusiastic. It was interesting to note the comments of one of the support staff who believed that the children were sitting passively taking in information, particularly one little girl, as if they were at home watching TV on a large screen, much like the one in the class. However it was generally felt that the children were engaged in the activity with many requesting a turn at the board.

Importantly, those children who are sometimes reluctant to participate, demonstrated in their practical work and in questioning in the plenary, that they understood the concept of measure.

The most interesting aspect of the research for me as a practitioner was the *transference of skills* from the whiteboard to the practical activity. The focus group were confident to apply their understanding to measuring real life objects with their own pile of monkeys or handprints as was the case. The children did this with ease as reported by the adult supporting the group. The whiteboard has had a profound effect in terms of *motivating* and *engaging* the children and through such interaction in practical activities they were able to model this in their own work.

From my own experience the whiteboard is a powerful teaching tool and is effective, providing the teacher has the training and confidence to deliver engaging and stimulating activities. The whiteboard can be used to respond to *several learning styles*, audio, visual and kinaesthetic and as illustrated in this small scale study aids exciting, engaging and participant led teaching over more traditional teaching styles and methods.

Next Steps

In my future teaching I shall continue to use the whiteboard to introduce and deliver concepts which will then be reinforced and consolidated through a variety of classroom based practical activities, for example teaching the concepts of time and sequencing.

In my future research I would be interested in continuing to study the experiences of low attaining children and their responses to a range of interactive whiteboard activities.