

Developing Counting at The West Park Academy

A case study from Early Years



Overview

Alexis Moon is the Early Years Leader at The West Park Academy. Alexis took part in East Midlands West maths hub Counting Project in 2017/18. The counting project has allowed her to develop counting within her setting. It has shown me where gaps lie in the children's learning and given her the tools to close these gaps in order for children to have a greater understanding of number. She explained:

“The children have developed their concept of number to build good foundations in mathematics”

The Counting Project at East Midlands West maths hub

The project aimed for practitioners to develop provision for counting in Early Years mathematics within their school/setting environment. It was intended that the children in the project settings would display higher levels of involvement in counting activities and communicate their counting strategies in a way that is observable by adults. It was hoped that project settings would develop practice underpinned by a clear knowledge of counting principles (particularly related to cardinality) and that setting practitioners would feel more confident in how to support children's early counting.

What we did at The West Park Academy

After completing the initial training day, Alexis went back to her setting and banded the counting collections. At the West Park Academy, the children enter with a range of ability and so banding started with 0-5 items and went up to 16-20 items within a collection. Alexis thought it was important for children to understand numbers to ten securely before moving onto higher numbers. The setting already has a maths area with counting items available for the children to use as part of the provision so Alexis focused on running a weekly 'counting collections' session. The staff began by running small groups and concentrating on stable order and one to one counting. Once the children were secure with these concepts they moved on to cardinality. This is where staff found many of the children lacked understanding and clarity. The staff at the setting used 'counting collection' sessions to develop the children's understanding of cardinality by using the question "how many?" Together, they used strategies learnt through the project to tackle this concept. For example, children counted objects and the items were then covered when asked "How many?" This took a number of weeks but now every child within the setting avoids re-counting a set of objects.

What the children did...

The children were extremely motivated during 'counting collections' sessions and appeared to love using their own little box of items. During one to one counting, many of the children chose to line their items up before beginning to count them. Those who did not line up items seemed to get confused and needed to start again a number of times. Interestingly, many of the children who had not lined their items up watched those who had and adopted this strategy for themselves.



Once the items within each individual's collection had been counted, the children were faced with the question "How many?" All except one of the children in the setting began counting the items again. The children were encouraged to remember how many items they had in their set. This took some practising and a table was set up in the provision to allow children to get a collection and practise. This was a popular table and the children began mimicking what adults had modelled in sessions. For example, they would count the items and test each other by covering the items and asking each other "How many?"

Lesley Hampson (A nursery nurse at The West Park Academy) said:

"It has been really interesting to gain knowledge into early misconceptions of mathematical skills. These could set children up for failure later on in their education so it is vital that these misconceptions are corrected in the EYFS."



Summary and next steps

The West Park Academy Nursery developed knowledge of object counting. They learned that children are often counting objects by rote and not understanding cardinality.

The West Park Academy Nursery are continuing to develop their approach to teaching early maths by teaching children the progressive nature of cardinality so that children are able to stop mid count and know how many they have counted so far.

If you are interested in engaging in similar work with East Midlands West maths hub...

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