

Maths Champions Case Study

Champion: Jodie O’Leary

Setting: Brookvale Nursery

INTENT

Introduction

A little bit about your setting, why you joined the programme and what you wanted to achieve from it.

I have been room lead for a couple of years at my setting for both Toddler and Pre School room. As part of this role I looked at what areas were lacking in our setting and we identify that math was an area where staff and children were both not confident and wasn’t using it correctly.

Our nursery takes children from Birth to five years and we are open 8.30am till 5.30pm, all year round. We have a high proportion of fund children in our nursery and many of our children enter the setting below age-related expectations. Where our nursery is based we are classed as a deprived area. We understand that birth to 5 is the most important foundation for a child’s development and they need a solid understanding from a young age to continue to thrive in later education.

I was informed of the Maths Champion programme from my manager who thought that it would benefit everyone within the setting for staff to use this programme as a learning opportunity for all staff which I was given the task to explain and implement within the toddler and pre-school room.

How did you decide what to do?

*What did the audits highlight, what changes did you consider and how did you identify the change/s to be made?
Did the changes you considered come from the online training or resources etc?*

At first I looked at the timeline which was given to me as I was meant to do with another staff member but I had to continue it on my own I decided to only do the mandatory section of the programme due to time and so I could focus on the important parts and get as much knowledge to implement this. I completed all 3 training courses which were very informative and gave me a lot of information to think about and how our setting will benefit from doing this course.

When I carried out the staff confidence and learning environment audits I found it very enlightening that I didn’t realise how much maths was missing from the setting and how the staff understood math and how they carried it out with the children, It also helped me identify resources that were missing from the setting which is an important part of helping develop maths.

IMPLEMENTATION

What did you change or implement?

Outline a positive change or changes that have taken place as a result of being part of the Maths Champions programme. How did you plan for it and what did you do? How did you plan to assess the benefit of the change on staff practice and children's experiences?

I immediately moved forward looking at opportunities for everyday maths exploration within the setting, I made a list resources which we needed and started small with sand timers and I introduced these to the children and staff and explained what we are going to be using these for to understand routine and time, it didn't take long for the children to start being able to use the timers in their play when they had to wait there turn the would turn the timers on and wait for it to run out before explaining to the peer that it was there time now.

I conducted a staff training session, offering an overview of key points from the online training that we believed would benefit the staff. During the session, we allocated time for discussion, allowing staff members to sit with colleagues from their respective rooms. They brainstormed and documented current methods that support children's maths learning, as well as proposed new ideas for further improvements. We as a team decided that we would look at number rhymes and we all made our own number rhymes props to use within the setting.

I looked at subitising and counting inside and out I provided resources for counting such as counting bears and natural resources, number and number dots, scales and looked at different ways for children to understand how many they had a each item and how to use number dots to work out how many you have, the staff started support the children with this and using words such as "I wonder how many I have" giving them the opportunity to work if out for themselves.

I observed a group of children playing with large blocks. They used words like 'mine is the biggest' while comparing the blocks. The children sorted the blocks into different sizes examining their size and shape in detail, whilst also counting how many they had each. They have become confident with using words to describe objects to each other and staff within the room.

IMPACT

The success and benefit of what you did.....

For children

What has been the impact of the changes on children's learning and development? How has being involved in the programme made a difference for children in your nursery?

The Maths Champions programme has prompted us to make significant changes to our environment and the resources available to children. As a result, I have observed a substantial increase in children's engagement in open-ended play, leading to a greater use of mathematical language and general language skills, as children engage in meaningful conversations with each other and staff.

Children's confidence has grown tremendously through the induction of the changes that have been made such as their independent skills setting. Staff have witness their confidence growing daily as they share ideas and suggestions, becoming more animated as they play and experiment around the room with maths.

For families

What has been the impact of the changes on families? How has being involved in the programme made a difference for families whose children attend your nursery?

Parents have told us that they had seen an improvement in their children understanding of maths and that the parents now feel happy to help their children with this at home but doing simple things such as singing number rhythm and giving them the skills to become independent.

For staff

How has being involved in the programme made a difference to your staff team/individual practitioners? What has been the impact on their practice?

The staff have become more confident with maths, and its use is becoming more natural and frequent within the setting. Staff members are incorporating maths into their daily activities effortlessly and effectively, using mathematical language regularly without overthinking it.

For the Maths Champion & Deputy Maths Champion

How has the programme helped you as Maths Champions & Deputy Maths Champion to develop your own practice? What has been the impact on your practice?

As Maths Champion the programme has given me access to a range of resources and information that I didn't know was available. The online courses and webinars have given me confidence to be able to carry out any changes within the setting and to be able to teach other staff member how to become confident exploring maths with the children. It has been great having someone to email and check in on my progress and to help me figure out if I am doing it all correctly.

For the setting

What has been the impact been on your environment?

We now have a wide range of new resources available to support maths throughout the nursery, including number lines, measuring tapes, stopwatches, sand timers, clocks, and scales. These resources were identified through the audit of the environment, and we will continue to seek new and exciting ways to enhance children's maths learning. From recent observations of children's development maths doesn't have as much of a gap as it use to and that is as a result of the Maths Champions programme and being able to roll it out across the whole settling.

Next steps

What further improvements might you make and how will you continue to monitor the quality of maths opportunities within the setting?

The plan is to further develop the outdoor areas to utilise natural resources for larger-scale math activities, encouraging children to explore more while playing outside. Additionally, we aim to integrate math exploration throughout all rooms, ensuring both staff and children continue to build their confidence in math.