

Maths Champions Case Study

INTENT	
Introduction	<i>A little bit about your setting, why you joined the programme and what you wanted to achieve from it.</i>
	We are an independent day nursery, which has been operating since 1995, with around 40 children attending per day from 6 months to 5 years old. There are usually around 20 - 25 in the Pre-School room each day with most children attending for between 15 and 45 hours per week. Children leave us to attend around 10 different primary schools each year. Due to not being part of a chain, and not having a single 'linked' school we are free set our own curriculum and training priorities. Through staff appraisals and observations of practice the management team identified maths as an area for staff development. The assistant manager has undertaken a research project for the EEF at a previous setting (on writing in KS1) and was interested in this project when it arose as it linked with our development plan. The aim for us was to enhance staff knowledge and skills to impact on children's attainment.
How did you decide what to do?	<i>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?</i>
	We decided on our action plan activities based on the audits we had undertaken. As this project was starting, we were just completing the EYPDP which has a maths element as well and so this dovetailed into what we had completed on that project. Training was planned based on staff knowledge gaps using the videos and top tips in the resources section which were invaluable. Feedback from staff has been very positive, especially in the way that Sue Gifford made the maths concepts so accessible to all staff regardless of their own maths capabilities and confidence. The audits highlighted a lack of maths in the outdoor provision, so this was a big focus for us, and we completed some of the core activities outdoors (e.g. number hunt) to further supplement our provision.
IMPLEMENTATION	
What did you change or implement?	<i>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>
	Staff confidence in maths has improved and staff now talk about children's maths knowledge and next steps more often and with more accuracy. This is due to the staff training we completed which has explained the main concepts and showed videos which placed these in everyday practice so staff could see what these concepts mean on a day-to-day basis. This led to them providing a wider range of maths activities across the indoor and outdoor environment and having much more focussed maths discussions with the children. We use the Elklan 'adult child interaction checklist' to observe staff and this has allowed us to assess the changes in their work with the children. We use Tapestry as an online learning journal and staff have journaled far more maths related entries since the start of this project, and the content of these have become much more focussed on key maths learning (e.g. cardinality, subitising) which they are able to describe accurately.
IMPACT	
The success and benefit of what you did:	
For children	<i>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?</i>

As staff are now much more aware of the key areas of maths development, and have an improved vocabulary for discussing these, they have become better at identifying children's next steps and how to plan for these indoors and out. They are also more confident when discussing children's learning with parents so they are better able to continue the learning at home. Staff provide a wider range of maths experiences and know how to enhance these to further challenge children through more skilled questioning and additions to the provision.

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?

Due to Covid-19 restrictions, the impact on families is probably less than it could have been. As they have not been inside the setting, they haven't seen the changes to the room and have not been able to take part in activities at drop off and collection as they would previously have done. Therefore, staff have had much less interaction with families than usual. However, by using Tapestry, and having seen the increase and improvement in maths focused observations that staff have made, parents will have been kept informed of their child's next steps and learning in maths. Photos and videos have been used to supplement the written observations so parents can take this learning forward at home.

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?

Staff confidence, skills and knowledge have increased, and they have been very positive about the project from the start. Staff training sessions have provoked a lot of discussion and reflection from all, and staff are now more confident when assessing children's knowledge and next steps. The way they discuss children's maths knowledge with parents has also improved.

For the Maths Champion and Deputy Maths Champion

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

We have both learnt a great deal from the project. The coaching unit has helped me to improve the way in which I support staff to develop their own practice. Using the audits with staff gave me a good structure for discussing their needs and areas for development. I would definitely make use of these again. We both feel that we need more time with a more settled staff team (we have had a lot of changes and relied on supply staff at times) for the benefits to be fully realised and so now we have appointed permanent staff we will be revisiting training with the new staff and continuing the activities in the room.

For the setting

What has been the impact on your environment?

The environmental audit identified clearly where we needed to improve the room, and we have been working on this. The main aspect for us was the outdoor provision which has been adapted and improved to provide a wide range of maths opportunities and a set of maths activities that staff can use to plan from. We will be adding to this resource over time.

Next steps

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

Having had so much disruption over the lifespan of the project we now need to consolidate what we have done, audit and train the new staff and complete the action plans where we haven't been able to do so. We also need to complete the core activities which we have not yet been able to undertake. Undertaking a further staff confidence audit in a few months' time will help us identify where improvements have been made and sustained and where further input is still needed. We aim to continue to utilise the videos from the resources section to continue staff training.

Thank you for taking part in the Maths Champions programme.