

Maths Champions Case Study

Champion: Grace Howe

Setting: Canterbury Nursery School

INTENT
Introduction <i>A little bit about your setting, why you joined the programme and what you wanted to achieve from it.</i> Canterbury Nursery School is a maintained Nursery School in a deprived inner-city area. The intake is diverse with the majority of children being EAL. A large proportion of our children are on enhance provision places and have a lower adult to child ratio. We are open term time only and children either attend for 15hrs 8.35am-11.20am or 12.20-3.05pm. A small amount of children are on 30hr funded places. Some children enter at our two year old provision and others start with us at three years old. The majority enter nursery behind the national expected level and Maths is definitely an area in which children are noticeably a lot lower than the national average. I wanted to join the programme as I have recently moved from leading a small enhanced provision room, within our setting, to leading both this room and the main 3-4yr old provision. I am now teaching a lot more children who are on the 'expected' pathway through nursery, had a lot more of an oversee on provision and what it looks like and a lot more staff which I would lead and mentor. I felt the programme would be a great opportunity for Canterbury Nursery as it would help make long lasting improvements to not only my own knowledge and understanding but would positively impact all staff which would then in turn help children and families which we work with.
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> In order to take a mentor role within the programme I started by completing the training provided. The school where I work is the only place I have worked since qualifying as a teacher and before this I had never worked within early years. In order to be The Maths Champion, I felt I needed to really delve into all training provided before I could start to improve maths throughout the provision. I found the training really inciteful and it provided me with a great foundation to start the course. I completed the environment audit for the 3-4 provision and my deputy provided the audits to staff and we then looked at the data together; the audits were really positive, which then made us realise that staff knowledge was good, however staff confidence to use their knowledge and the environments and resources provided was where we needed to work on. We had lots of ideas to implement maths into every day provision but needed more and varied resources to implement this effectively. Long term staff had had lots of previous maths training but due to not having a refresh and a big push in this area this had led to slipping of maths language being embedded and confidence to drop.
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>

Through training I had learnt about the stigma around maths and that children from underprivileged areas were more likely to be behind in maths and have a negative relationship (particularly girls). It had also been highlighted in staff audits that staff weren't confident in open ended conversations around maths and didn't always know when or how to use silliness. I felt one of the most important changes had to be to create a positive relationship with maths. I felt one way to do this would be to make maths fun; following children's lead and not being afraid to be silly.

We decided that a good idea would be to introduce a real life maths problem (using children's interests to determine) within a focused group time every week. This problem would be discussed in planning and we would talk about the key language that could be used within this and also how we could make it fun, silly and hands on. We would evaluate this weekly.

We also wanted to improve parents thoughts and feelings around maths. We wanted to empower parents to know that maths doesn't have to be serious and 'hard' and that in fact every day activities could incorporate maths at home and would benefit their child. Maths activities were provided on the weekly 'What's on guide' and parents were encouraged to share the activity when they had tried it at home by sharing photos with staff in their child's Nursery Suite.

From the environment audit it was made clear that we needed a restock on maths resources for both inside and out. Number was explicitly added to all areas. Our mud kitchen was redesigned to include resources which focused on weight, capacity and length. Pattern was an area we had highlighted for needing development. Images of pattern were added to provision and lots of resources for children to develop their pattern making e.g. loose parts, shape, colour, items of varying sizes.

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 impact the Maths' Champions programme has had on children is huge. The focus on maths has led to children using maths language naturally within provision whilst in open ended play. Children will have discussions with both their peers and adults. During group times children's confidence has grown to share their ideas and give things a try and a go.

The new resources throughout provision has improved engagement and has led to a love of maths for some children who would before not initiate and would avoid joining in.

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?

The activity ideas on the 'Whats going on guide' has been a huge hit with parents. Parents will happily discuss every day activities they are doing with their children at home to help their maths learning. Parents have more confidence in their own maths ability.

We are looking forward to sharing explicit maths targets with parents at Share and Learning days and hosting a Stay and Play.

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?

Although staff had previously had lots of training around maths their confidence was low. Being involved in the Maths Champions programme has led to a new found confidence in staff.
Staff have started to have fun whilst engaging in open ended maths activities and are implementing maths in all areas both inside and out.
Staff are now actively researching looking for new ways to implement and excite children through maths and the attitude towards maths is now a much more positive one.

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?

For me personally the Maths Champions programme has increased my knowledge around Early childhood development in maths and the foundations which children need. I found the online training inciteful and interesting and enjoyed the regular webinars to share ideas with others who were taking part in the programme. Through the Maths Champions programme I have grown as mentor and a practitioner.

For the setting

What has been the impact on your environment?

From the Maths Champions programme our environment has been dramatically improved, the area has had a huge refresh of resources both inside and out and we will continue to adapt and refresh this when needed. Maths is hugely more prominent within our setting, it can be seen in all areas of provision and this is in turn having an impact on children's attainment and confidence with Maths.

Next steps

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

To continue to make maths a priority within our setting, continuing with the weekly activities around problem solving and pattern that are already implemented.

To go ahead with the scheduled Stay and Play and Twilight trainings for Summer term.

To continue to use the staff and environment audits to keep on top of areas we need to improve termly.