

Maths Champions Case Study

Champion: Dee McAvoy

Setting: Carols Kidz Care

INTENT
Introduction <i>A little bit about your setting, why you joined the programme and what you wanted to achieve from it.</i> I am the manager of my setting and have been for the last 8 years. I am always looking for new ideas to further my staff's own learning and development and therefore support the children in my setting to achieve their full potential. Our setting provides both early years education as well as childcare for children from birth up to the ages of 12 years. Our main focus being the Early Years education, we are 23 space nursery, with 40 children currently registered. Our setting is located in a deprived area of Northumberland with a high number of children attending on the two-year-old deprivation funding and three-year-old universal funding. The majority of children receive EYPP with a high number of children either with SEN or emerging needs. The majority of our children as significantly behind and still not school ready by the time they reach school age. I joined the Maths Champions programme as I thought this would be a great opportunity for the setting to make a positive change in the way children are supported with their mathematical development in our setting. Making positive changes to our delivery and learning to support children's learning of maths. As a setting we are constantly looking for ways to improve our practice and feel maths is not an area that is given as much attention and communication, language and literacy. I nominated myself to be the Maths Champion along with my Deputy Manager to be the Deputy Maths Champion. We are just a small setting so thought this would be easier for us to cascade training and knowledge to our staff.
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> Before we decided what to do, I completed the online-training courses along with my deputy. We both completed the courses as we decided it would be beneficial for us both to gain a clearer understanding. We both found the courses extremely beneficial highlighting the different areas of mathematical development and what this looks like in practice. It was clear to see that our setting was significantly lacking both the confidence and understanding for staff as well as missing resources in the setting. When then worked with staff to complete both the staff confidence and environment audits which highlighted the same areas of improvement which we had already identified. It did highlight that we were already incorporating maths throughout the daily routine during key times such as snack times and through songs and rhymes. The audits highlighted that staff who have been at the setting longer were able to identify areas of improvement compared to those who are newer, with them highlighting less issues. For the staff confidence audit it was the other way around, longer serving staff were more confident compared to the newer ones who required a lot more support.



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?

We felt that the most important area identified was staff's understanding of mathematical concepts. If staff do not feel confident in their own understanding of these concepts then they will not be able to teach the children about these. We want all staff to be confident in all area of mathematical development. In order to this we have focused on a different concept during each staff meeting, providing staff with handouts and links to further learning for them to do independently if needed.

We then moved on to evaluating the learning environment both indoors and outdoors, identifying areas where we could incorporate more maths and identifying the resources we were lacking, creating a plan on how to source these. Some things needed were simple to implement such as number lines both inside and out and others were more difficult, having to generate funds to purchase new resources. Once we source what we need and created our resources then we could move on to supporting staff to use these to support children's learning and development.

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 programme has supported us as a setting to identify our areas of improvement. Although I feel we need to revisit some of these, the changes we have made have already proven to have a positive impact on the children's learning and development. With children being more engaged with mathematical activities. The children have found a new interest in exploring loose parts and natural resources, both indoors and outdoors. They are using them not only with adult guidance but have been observed using them independently to create their own patterns. Children are developing a good understanding of sizes and measures and are enjoying using these, especially is sand and water play or when helping with cooking. Comparing assessments, children have made good progress in heading towards their school readiness goals compared to before starting the programme.

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?

Families have been aware of the programme since we began, they take a keen interest in what the children are learning, and we share ideas to support learning at home via our social media channels. The majority of them are keen to be involved with learning, this is why we have chosen to create home learning packs which can be used at home with parents to support their child's learning.

Parents take pride in telling us new things that they have seen their child doing when with them. For example one parent informed me that on the way to nursery the child was pointing out door numbers.

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?

From completing initial audits, it was clear that this was the area staff felt the least confident in supporting children. Staff are now more confident in the different mathematical concepts, however work still needs to be done to further their own learning, they are equipped with the knowledge and skills to support children's development of maths. They are able to provide appropriate learning opportunities which support the individual children. It has also been reassuring for them to realise how much support they were already given children with their maths throughout their day to day practice, for example during routines and key times of the day as well as song times. It also helped them to understand that learning can be spontaneous and is not limited to specific number work planned in a maths focused activity. All opportunities can provide mathematical learning.

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?

The training course have helped with CPD opportunities as well as giving us the knowledge and range of resources to share with staff to support their own learning and development as practitioners. We now have a greater understanding of the different concepts and what they look like in terms of the different age groups of children, meaning we are better equipped to support them appropriately. It has equipped us to be able to identify what is working well within the setting and what areas need improvement. It is something we will constantly use within our everyday practice.

For the setting

What has been the impact on your environment?

There is a greater focus of mathematical development across the whole setting, with maths being introduced from the baby room and built upon as the children pass through different age groups. Observations and assessments being carried out prove that the children are learning from practice which is now embedded. The setting is now better equipped with the resources to support mathematical development both indoors and outdoors. From ideas as simple as using number lines, having numbered labels which also show subitising to having a range of loose parts to support open ended play and an awareness of patterns.

Next steps

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

The main thing is to continue practice throughout the whole setting.

We plan to revisit staff's knowledge and understanding of concepts to ensure staff fully understand what they all mean.

We will replace resources which we damaged outside due to the weather as well as looking to source more resources we feel would be beneficial. For example we have contacted local landscape gardeners to try and get some log slices donated and have a walk planned to see what natural resources we can collect to use in the setting.

We will be finishing the home learning bags for families to use and looking for new ways to get parents involved with their children's learning. We are looking to have our next stay and play session with a maths focus.

We plan on revisiting the audits at the beginning of each new term to ensure maths is still being supported across the whole setting.