

Maths Champions Case Study

Champion: Lesley Dix

Setting: Toddlers at the Bridge Preschool

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 a pack-away setting with two separate halls. The Caterpillar room has children from 1-2 years and the Butterfly room has children aged 2years and 9months – 4-year-olds. We are quite restricted regarding our learning environment as the halls are used by outside companies after our working hours, so everything we set out each day, must be cleared away. We also have a separate outside area with a brand new 5G pitch, which the owner has banned heavy objects and certain footwear must be worn when accessing it, to protect it. Due to this, I feel we have always lacked an exciting, inviting outside area as choices of resources are restricted. During team meetings, we realised our maths learning opportunities were minimal and the overall maths understanding with staff was limited. Over the years we have tried having a maths area including a trolley containing maths resources, this wasn't successful as other than all resources being tipped out by the children, it wasn't being accessed/staff struggled to find appropriate ways of engaging with the children and so the trolley eventually stopped being brought out when setting up. We also suggested including maths throughout all other areas of the setting rather than having one set 'maths area'. Again, this didn't work out due to lack of knowledge and understanding, and so children lost interest. We couldn't wait to get started on this course to learn how to provide suitable maths opportunities and help our children in this area of their development.
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> The audits helped us to see overall how lacking in confidence our staff team were, and how much improvement our learning environment needed. We knew improvements were needed, but the audits showed us in a clearer way, and exactly how to break it down into sections, rather than trying to fix everything at once like we were previously trying and feeling overwhelmed with it all. With thanks to the examples provided, online courses, fantastic resources, videos and webinars, we have been able to make so many much-needed changes and I feel, create a happier, more positive learning environment for both the children and adults. Adults' attitudes towards maths have improved, and I think it is due to having a better understanding. Our children appear happier and more willing to learn and take part in activities. Our children's families are also beginning to comment and show an interest in our planning and learning intentions.
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>

As a setting, we have achieved so many things since taking on the Maths Champion course. We have a stronger team relationship in which we are all willing to share our observations, ideas and planning ideas. We share what's going well and what needs improvement. Staff confidence has improved massively which means they have been more willing to ask questions or learn more and even share their thoughts and opinions. Our environment has improved, it has more maths learning opportunities both inside and outside, with prompts and visuals in appropriate places – this allows staff to extend conversations and learning. Our main change/improvement that I am so proud of, is our new mud kitchen area. Now we have a secure section where we can leave the doors open to create a small but much-needed free-flow opportunity to the outdoors. Our mud kitchen provides endless maths learning opportunities, which the children can choose to access independently as and when they want. We used EYPP funding to help create this area, as mathematical development improvement is required for most of our children. With thanks to webinars and resources provided in this course, we have a catalogue of ideas to add to this area, to continue to keep it an attractive and inviting area for our children. Parents have given positive feedback too, stating how lovely and fun it looks when they drop off their children, and telling us what their children have been excited to have with them at home regarding this new area of ours. Children have been asking their parents to buy them a mud kitchen of their own, leading to parents asking us where we bought certain items and how they can create their own mud kitchen at home.

We, as a team, have decided to revisit the audits, later in the term in the hope of continuing to enable our learning environment to thrive. We will also re-visit the staff confidence audits to maintain the positivity and staff morale.

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?

We use 'My Development Matters' to track our children's learning and plan for their next steps. For a while now, Maths development has been a bit of a struggle for our children, and as a team we have previously found it difficult to find alternative ways to assist our children in meeting these milestones. This programme has allowed us to think more creatively, broadened our knowledge and made the concept of Maths much more understandable and clearer. Staff have changed and improved their teaching methods and made maths fun again, as it should be. Since beginning this programme, the children's observations have shown what an improvement they have made, and in such a short time. This has been a privilege to share as a team and given us the motivation to continue with the activities and using the resources provided going forward. We have noticed mathematical language during children's play and staff do exchange knowing smiles when they observe the effects of their teaching and modelling. There is no greater feeling than physically seeing the difference you have made in the children's learning. We know we still have more work to do, but when we see how much improvement has been made in such a short time, we are positive our children will continue to thrive and eventually be school ready. Our team are still trying to think of ways to strengthen our working in partnership with parents, but I am sure as time goes on, our relationships will strengthen naturally and in turn will allow them to be more willing to become more involved with us and child's learning.

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?

We are still trying to get our families on board; however, some are beginning to confide and share what they've been doing at home and when out and about. The general theme is how easy it is to provide mathematical learning. Parents can now see that their child doesn't have to be school age to learn maths, and that simple, everyday activities like allowing them to help around the house can provide so many learning prospects. I have seen some parents taking photos of our Maths Tips posters, which was good to see. I am hopeful that they will be able to take something from these posters to help them at home. As previously mentioned, some of our parents and families are new to our setting and may take a while to feel confident enough to trust us and share/confide in us. The manager and I are working together to think of other ways to invite families into our setting to hopefully ease their discomfort and build our partnerships, in turn, assisting us to help their children thrive.

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 were reluctant at first as they thought it was another course, bombarding them with lots of information that they will have to remember. However, having myself and the deputy maths champion feeding back to them, and sharing the videos/webinars has changed their attitude. They appreciated the information being fed to them via a conversation/discussion during team meetings. They also responded well when we pointed out their use of maths language - pinpointing what it was that they were doing. This has raised confidence levels, and they are constantly sharing ideas that they've seen online and sharing their thoughts on how they can use or adapt these to implement in our setting. They are eager to share their key children's progress when milestones are being met and are visibly proud of themselves, knowing they have participated in this learning. We all plan an activity once a week, based on our key children's needs, and I have seen a rise in maths based activities now due to staff having a better understanding of maths concepts and how to break things down so targets are achievable. Overall, our setting has a positive approach to mathematical development and learning now, which was never present before taking part in this programme.

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?

I am so grateful for this opportunity, I am room leader of the Butterfly room, and I knew all staff (including myself) were really struggling with helping our children to develop their maths, but I didn't know where to begin regarding helping. I was aware the learning environment needed significant improvements but again, felt so overwhelmed with it. I have drawn out many room plans in the past, trying to think outside the box but coming up with nothing, nothing that was successful anyway. Since starting the Maths Champions programme, I feel a big weight has been lifted and everything is much clearer now. I have been able to break everything down into smaller areas/sections and tackle little pieces at a time. I am now in a position where I can confidently offer advice, identify problem areas, and find solutions. I no longer feel like I am letting my team down, and we are all working positively together.

Having a Deputy Maths Champion has been such a help as well, it especially helped when delivering the programme to the remaining staff. We've enjoyed sharing each other's perceptions of things throughout the programme and working together to implement changes. Being named the Deputy Maths Champion gave her a confidence boost as she felt she had a role to fulfil. She enjoyed sharing the workload especially when we could see the positive outcomes from the changes we had implemented together. With the both of us eager to share the knowledge and learning we have achieved, I feel our positivity was contagious, not just amongst the staff but also with the children.



For the setting

What has been the impact on your environment?

The whole team are proud to show off our hall now and are all able to confidently explain the learning intention for each of our areas we are responsible for. The learning environment is much more attractive and inviting, providing lots of talking points and the visual prompts around the areas offer reminders and tips for everyone to continuously extend learning, making the most out of the possible learning opportunities. Children are independently accessing all areas and have been seen to mimic some of our teaching methods-which is great fun to see. They also notice the displays and visuals which leads to them discussing their own interpretations or asking adults what they say/mean. Staff are proud of the environment, a lot more thought and effort is being put into each area which leads to lots more photographs being taken to share with families, and areas are more inviting as the ideas and planning are carefully thought about, tailoring to the children's interests and developmental levels and needs. The environment has a positive feel overall, and the children and staff are a lot more engaged. I have already noticed a decline in running around the hall, and unwanted behaviour, which I can now see was possibly due to boredom amongst some of our children previously.

Next steps

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

I would like to sit as a team, once at the start and again at the end of each term, where we will discuss our key children's developmental progress. This will help us identify their needs and difficulties and highlight what we need to focus on and any other changes to be implemented. We will revisit the audits we have completed in the Maths Champion programme to continue to monitor staff confidence and our learning environment and work together to continue to help our children and ourselves to thrive. We aim to continue to extend learning opportunities and continuously keep improving our areas to maintain the children's involvement keeping their interests in mind when planning. We will continue to work hard to strengthen our partnership with our parents and families and aim to create opportunities to invite parents in to observe, share tips and ideas between home and nursery and possibly begin parent workshops to help build their confidence in providing mathematical learning opportunities at home.