

EEF Case study:

The Patch Day Nursery



Key points of your Maths Champions improvements

- Developing staff confidence and understanding of maths.
- Improving the opportunities in the learning environment for children to take part in mathematical activities.
- Improving children's outcomes in maths.

Background detail

A little bit about your setting and why you joined the programme – what did you want to achieve from Maths Champions

At The Patch Day Nursery we wanted to be part of the Maths Champions project to be able to support and improve our children's outcomes in mathematical development.

Looking at our own progress matters data and the local EYFSP data it shows us that children have not been consistently achieving the expected level of attainment.

Many of our staff team also felt that this area of learning was a weaker area for them.

We also wanted to challenge ourselves and address an Ofsted suggestion from our last inspection to embed maths across all areas of daily practice.

Section 2 – Champion's section

How has the programme developed your own and your team's CPD?

The Maths Champs project has given our nursery access to a variety of online learning, including webinars, courses and resources that have supported us as practitioners to challenge our current maths practice and develop new ideas.

What has been the impact of the training?

(e.g. training courses / staff meetings / in-house training / mentoring / peer observations / key changes / overall practice)

As a team, we have been able to spend a training day and staff meetings reflecting on our own practice in maths. This in conjunction with the audit tools has been extremely effective in helping us to see areas for development.

This can be seen in the new daily routines that have been started, for example counting children and writing the numbers at group time, using ordinal numbers when lining children

up. Also using equipment for measure as part of the continuous provision. The impact of this has shown in the children's confidence to experiment with scales and use maths language practically such as more or lots. Children have also shown increased confidence with number recognition because of increased number activities and resources available. We have a personalised number line with children's photos, number lines showing numbers to 100. This has helped children's confidence increase with experimenting with numbers in the environment.

From your starting point to today, what have been the changes in the following:

Children outcomes

Children's access to continuous provision, which promotes mathematical learning, has increased. All preschool children have participated in the core activities from the maths champs program. Progress matters assessments have allowed us to see where children's starting points are low. All children have made progress in MD. The data from our spring assessments show us that 41% of the children are achieving the expected level for Number and 46% for Shape, space and measure. This percentage has risen from our autumn term assessment data.

Staff development

Five staff have completed the Maths Champions project. They have all had access to the BKSB online tools and development zone for materials. This has allowed staff to reflect on their own confidence in different areas of maths. It has provided us as a staff team with professional challenges for improve our own skills even if it has proved demanding at times. Overall, the BKSB has increased staff awareness in maths and developed their own personal skills.

Parental relationships

We have been able to look at how we support parents in Mathematical development. We need to offer more to families and as part of our continuing action plan are going to offer:

- Family maths challenges in our newsletter
- Home learning maths resources
- Maths workshops for parents to attend

Environment indoors

Our indoor environment has completely changed for preschool. We have used the ECERS scales and the audit tools from maths champs to look at the resources and experience we offer. We have includes a wider range of number lines, counting resources, and personalised resources to support counting and sorting. We have provided a wider range of measuring resources including scales, real life measuring jugs and spoons, tape measures and clocks. We have a visual timetable accessible to children and a now and next board.

As a result of this children now engage in a wider and richer continuous maths provision on a daily basis. This has increased children's confidence in using mathematical language.

Environment outdoors

We have included weighing scales in our digging area and a number line outside. We have been making collections of natural resources for children to sort and match (rocks/sticks) We are developing a numbered car parking system and mud painting display of shapes.

Attitudes towards maths

As a setting, our whole attitude towards maths has changed. In preschool activities and opportunities that promote maths with the children are much more central to our practice. Reflecting on our own experiences of maths and taking maths assessments ourselves has at times been challenging, however it has allowed the five members of staff evolved to grow both professionally and personally.

Tell us about any new initiatives or projects relating to maths? E.g. parental partnership development

We are planning to develop home learning maths activities in the newsletter and parent stay and play sessions.

Section 3 – staff

How has the programme developed your CPD in relation to maths?

I have been able to develop my understanding in different areas of maths and how children learn maths skills. I feel more confident in regard to assessment in relation to Maths and this as enabled me to make more accurate judgements.

What has been the impact of the training on your day to day practice?

It has given me more skills and ideas of activities we can use in pre-school, refreshed my knowledge of the day to day parts of the daily routine were we can really extend the children's development.

What resources did you find most useful and why?

The resource bank and webinars.

Can you tell us the biggest change the Champion has introduced for maths across your setting?

We have invested in some new maths resources and redesigned our maths area and ensured maths resources are accessible in all areas of the nursery. The resources and experiences in maths we offer pre-school children.

How did you find the BKSB element of the programme? If you did not use this, please tell us why?

This took a lot of time and did not directly enhance any of the experiences for children. Staff found this overwhelming and time consuming.

Can you tell us the difference in your confidence and attitudes towards your own maths and teaching children maths since the start of the programme?

I have many more ideas about how to support children's learning in maths. And we have a clear action plan about how to develop maths with children and families.

Next steps

How are you going to develop your practice further and why, what will the impact be? Who will be involved? How will your practice support good outcomes for children?

<i>Next steps</i>	<i>Impact</i>	<i>Who</i>	<i>outcome</i>
Develop partnership with parents	To support parents to understand how to help early learning in maths skills	Manager and Pre school staff, TBC	Parents increased understanding of maths activities they can use at home.
Develop planning of maths activities	To better document learning that takes place for maths in pre-school.	Manager and Pre school staff, with local authority support, TBC	More detailed and focused maths planning in pre-school.
Develop maths resource in the environment	To continue to use the ECERS scale to develop the environment (outdoor) to support children's maths development.	Pre school staff, Manager TBC	Increased ECERS score from June 17 onwards.

Final thoughts on the programme.....

Maths Champions has been beneficial to our setting. It has allowed us to reflect on our practice and support children to access a wider variety of activities that enhance their mathematical understanding. We need to continue to develop the actions not yet achieved to support our continuous improvement plan as a setting.

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