

Impact of the Family Maths parental engagement programme in West Midlands 2021-22

Introduction

The school year 2021-22 continued to be a challenging one due to covid restrictions, but we were pleased that the Family Maths parental engagement programme still showed positive results in the West Midlands region and across the national programme.

These positive results are a testament to the work put in by you and your colleagues this year. Please share these findings with other teachers in your school to show the progress made and impacts achieved across the year, and to thank those involved for their hard work.

This summary outlines the impacts seen across the West Midlands cohort, which includes data from four schools. A set of comparative statistics across the other regions who took part in the programme in 2021-22 can be found on the final page.

Headline impacts from the West Midlands cluster

- **75%** of teachers agreed or strongly agreed that the programme has helped them increase parental engagement in maths (from teacher surveys).
- **65%** of teachers agreed or strongly agreed that the programme has helped children in their class to talk more confidently in maths class (from teacher surveys).
- Across the cohort, **56%** of children in participating classes had a parent/carer engage with them on at least one Family Maths activity (from teacher data sheets).
- **76%** of parents who used the Family Maths activities said this helped them feel better able to support their child (from parent surveys).
- **87%** of parents who attended the parent workshop agreed/strongly agreed that as a result of the session, they feel more able to support their child with maths learning (from workshop feedback forms)
- **12%** of children were above target attainment in maths at the end of the year, exceeding the project aim of 10% (from teacher data sheets).

In addition, there were small but significant positive changes seen in children's confidence and participation with maths and with parents' engagement as rated by their class teachers on the following measures:

- The extent to which children are confident with maths
- The extent to which children participate confidently in class maths activities
- The extent to which children contribute confidently to class maths discussions
- The extent to which the parent/carer engages in conversations about maths

(If you would like to see the associated graphs for each measure, please contact anna@nationalnumeracy.org.uk)

Feedback from teachers

In the teacher surveys, teachers were asked about changes in children's confidence they'd seen as a result of the programme, and we received responses such as:

- “Children are more confident to have a go.”
- “Children are using maths vocabulary increasingly”
- “Children generally say how much they enjoy maths homework now.”
- “Children have a positive can-do attitude to their maths.”
- “Children talk about maths they have done at home. Children are more eager to do maths because it is not just a maths worksheet where they have several questions, it a fun and engaging approach to make maths fun.”
- “Confidence in being able to share their knowledge with their parents/carers”
- “It has been wonderful to see all abilities of children take part with their parents confidently at home. The activists allow for the children to complete them differently, such as using practical resources or writing down in the book. They are more confident in using maths in other lessons and when outside and playing.”
- “Pupils see the relevance of maths learning more.”
- “The children are noticing maths in daily life.”
- “The children who have taken part in this project have been able to demonstrate their understanding of maths more creatively and tasks have been more open ended. I feel that this has encouraged more children to participate in the homework activities, including children who would not usually complete homework.”
- “They are more confident at trying different methods”

Feedback from pupils

In the pupil surveys, pupils were asked why they did or didn't like the Family Maths scrapbook activities. The majority (67%) said that they liked doing the scrapbook activities, and some key themes emerged when asked why they like them: that they are fun; that the children enjoy doing the activities with their family; that the children like the format and variety of activities; and that the activities support their learning. The quotes below are examples of the reasons given by children:

- “They are fun to do with Mummy and Daddy.”
- “they help me to learn”
- “it makes me confident”
- “they are different to school activities”
- “I like the activities because I get to move around”
- “because they help me with my maths”
- “i may not enjoy maths but my dad and mom make hard maths really fun”
- “it is something to do that isnt ttockstars or spelling shed”
- “I get to do maths in a new inventive creative way such as puzzles and games”
- “They make a hard and worrying subject fun and easy to understand”
- “They give me an opportunity to have fun with my family while doing something educational and productive”
- “It's nice to spend some time with my family”
- “I can use my favourite toys at home to help me. I can do it in a fun thing at home.”
- “its very creative and artistic”
- “They challenge me”
- “it is helpful when you are struggling with maths and need help”
- “you get to do activities at home, with family and at your own pace.”
- “It's nice to talk to your family about what you are learning at school”
- “they help you learn in a fun way”
- “me and my mom always have fun doing this”

The responses from those who said they did not enjoy the activities also fell into a few broad themes: that the children find the activities either too hard or too easy; that the children don't enjoy maths; that the children don't have anyone at home to do them with; that the children have competing demands on their time; and that the children haven't done any due to revising for SATs instead. The quotes below give examples of reasons given by children for not liking the scrapbook activities:

- "its hard"
- "i hate maths"
- "i find it to easy"
- "its just too much along with the homework"
- "I have other things to do"
- "my mum won't let me do them at home."
- "I don't like doing school stuff at home."
- "there's no one to do them with me"
- "I have not done any yet as I was revising for the SATs tests" (27 children wrote this, making up approx one sixth of the total who said they didn't like the scrapbook activities)

Approaches for addressing many of these issues have been discussed in the cluster meetings over the course of the programme and include modelling activities in class, selecting appropriate activities for the current skill level of the children, offering a buddy system for children whose parents don't engage at home, alternating homework, and working together with families to understand the value of everyday maths and see learning opportunities outside of the maths classroom. Good progress has been made this year but it will take time to embed the strategies and engage more families in their children's maths learning, and your action plans for next year should help sustain this in your school.

Feedback from parents & carers

In the parent surveys, parents were asked about how taking part in the programme had affected their own or their child's confidence with maths, and we received responses such as:

- "after being made to work together it showed my son its ok to make mistakes but that together we can seek the solution to the question/problem. To encourage asking and accepting help."
- "We enjoyed this time together doing the scrapbook and I felt It was excellent way for my son to discover that math is around him. They gain confidence from understanding that they are able to solve problems in the activities and that maths does not need to be a complicated 'out of touch' topic learnt only at school"
- "Showing your child that maths is not scary and needed in everyday life is important and can be fun"
- "My daughter has really enjoyed the scrap book and it has supported me by proving that maths is needed in every day life. My son is disappointed though. He really enjoyed it but we haven't seen it in weeks now"
- "The family maths activities helped my daughter think outside the box to come up with different solutions to the problems."
- "My child has enjoyed our time together working on the challenges and has developed more self confidence"

- “We have been really supported by the school and encouraged to complete learning with our children. The class teachers make it fun and work really hard to provide enjoyable activities for us both in school and at home.”
- “Talking more as a family regarding maths”
- “I like doing maths with my child. I like how the teachers give us explanations and images to help.”
- “I think it has given us opportunities in our everyday life to talk about practical maths without getting hung up on correct methods.”
- “I’ve never been that confident with maths but by sitting down together and working out problems/sums it’s helped to revisit areas that I lack confidence in. My daughter in year 4 particularly struggles with confidence but when we sit and do it together after a little initial resistance from her she really enjoys it”
- “We talk about maths so much more now. We are constantly talking about my daughters learning and we enjoy doing it together.”

Comparative stats by region

Measure	All regions	London	West Midlands	East Ayrshire
Parents/carers who completed a Family Maths activity	71%	91%	56%	65%
Teachers who agreed/strongly agreed that the programme has helped them increase parental engagement in maths	68%	71%	75%	62%
Teachers who agreed/strongly agreed that the programme has helped children in their class to talk more confidently in maths class	65%	71%	65%	62%
Teachers who agreed/strongly agreed that as a result of the programme they feel more able to support their children with learning maths	63%	76%	50%	65%
Parents who used the Family Maths Toolkit activities who said that this helped them feel better able to support their child (from end survey respondents)	76%	73%	76%	84%
Parents who used the National Numeracy Challenge website who said that this helped them feel better able to support their child (from end survey respondents)	92%	Not available due to low number of responses per region		
Parents who attended the parent workshop who agreed/strongly agreed that as a result of this session, they feel more able to support their child with maths learning (from workshop feedback forms)	88%	90%	87%	Not available due to low numbers
Children who said they like doing the Family Maths activities	74%	82%	67%	70%
Children who were above target attainment at the end of the year	10%	8%	12%	12%