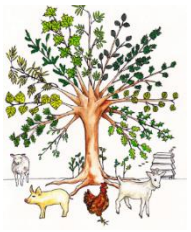
Teaching for Mastery Lesson Design at EDWALTON SCHOOL

A Primary Case Study

MathsHUBS East Midlands West



Teaching for Mastery Lesson Design Work Group

One of the biggest challenges facing schools as they adopt a teaching for mastery approach is how to design lessons. Working collaboratively with practitioners from across the East Midlands the project, we began by identifying the key features of mastery, before exploring a route through a lesson, that allowed teachers to link these together in a coherent manner. Essentially we were looking at how to turn theory into outstanding classroom practice. Though our research often went much wider than what is captured here in these case studies, each participant school was asked to focus in on one aspect of lesson design, how it has been incorporated into classroom practice, and the impact it has had on learners.

Overview

Edwalton school is a two form entry school based in south Nottingham. It has been committed to teaching maths through mastery for several years now. We are beginning to see the impact of using this approach as children come up through the school having been taught in this way for longer. All teachers are enthusiastic and keen to teach using mastery and a lot of changes have been made to our teaching in line with its principles. The lesson design project was important to us as we need to continue to create lessons that are highly effective but that do not take hours to put together. Furthermore, we still face the challenge of those children who struggle to keep up with the rest of the class.

What we did at EDWALTON SCHOOL

As a result of the lesson study workgroup there were several areas that have been identified that the school could benefit from a focusing on. However, one issue we felt we wanted to tackle through lesson design was that of confidence. I noticed that less confident children were often put off from offering their ideas and solutions because of feeling that they would look stupid. Confidence was also holding them back from having a go at questions because before they even started they didn't believe they could be successful. We wondered if any aspect of lesson design could help with this problem.

<u>Focus</u>

Initially, the focus of the work has been in year 4 lessons with the view to expanding successful 'techniques' across the school. We wanted to start with the early part of the lesson where there was teacher led interaction with the children and they were building their understanding through questioning. It was during this part of the lesson children were often asked to 'have a go' or solve a problem that I could see that some children were reluctant to try whereas the more confident children were keen to dive in and find an answer. We felt that if at the beginning of the lesson some children felt that it was too difficult then they were

There were two steps that we took to try to engage all learners at the beginning. The first was to make sure that numbers were not too overwhelming to begin with. The idea being to slowly build the numbers when the concept became clearer.

In addition, we looked at misconceptions and how to make sure that children did not feel defeated when they got it wrong. Whilst we had largely dispensed with hands up, it clearly was not enough to allow children to feel confident. Part of the solution to this was to move away from the concept of just a right or wrong answer but to value thinking and misconceptions so that we could explore ideas and methods rather than just focus on the need to find an answer.

<u>Planning for misconceptions</u>

The first step we took in our lesson design was to plan for misconceptions. We tried, where possible, to include a misconception or misconceptions for all of the children to look at and decide where the mistake had come from. This valuing of misconceptions and mistakes has given children the confidence to make mistakes. However, it became quickly apparent that it is impossible to plan for all

likely not to put much effort in for the rest of the lesson.	misconceptions that children might make in any given lesson.

Children, it seems, can be very creative with wrong ideas. Therefore, it was important to be able to respond to misconceptions as and when they arose. We tried to move away from looking for just the right answer but as we walked around the classroom we looked out for all the different methods and answers that the children had come up with and writing them on the board with comments such as 'I'm glad you've got some different answers because we can explore them.' It sounds obvious but we needed to avoid just saying no that's not right in front of the whole class. No longer was it just a case of yes that's the right answer and moving on but here are the different answers or methods you have come up with. The children then offered reasons why they thought any of the answers could be eliminated and a chance to explain why. Sometimes there might be discussion, even disagreements, about other possible answers and we found less able children often made very valuable comments. It was important to somehow celebrate mistakes as a way of learning and try to make sure that no one felt 'stupid' for making what would turn out to be a wrong answer.

Summary and next steps

The end result of these small steps that we have taken is that children are definitely more willing to offer their ideas in the first part of the lesson. Less confident children have been able to realise that they too can think mathematically and their answers are valued. However, whilst celebrating mistakes, children can still see that their answer was not correct so they may be more confident to have a go but not necessarily more confident in their ability to do maths. We have not solved the problem of lack of confidence in maths. I suspect we have only just scratched the surface of the issue. The 'competitive' element of children comparing themselves in lessons and assessments has not gone away. The nature of maths work, makes it easy for children to realise that they are not as fast or capable as others.

The next stage for us is to discuss confidence with the whole school and share some of the steps we have taken in year 4 to try to involve all children in the lessons and value their answers.

More Information

For more information about this project, or other workgroups and opportunities available through the East Midlands West Maths Hub:
Visit our website: http://www.emwest.co.uk
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