‘Keep up, not catch up’

Case Study of a pre-teach intervention model for Maths

SCHOOL: Shardlow Primary School TEACHER: Jonathan Dale YEAR GROUP: 5/6

MathsHUBS East Midlands West

1 School background

Shardlow Primary School is a small school with 103 children on roll. There are four classes: reception, 1/2, 3/4 and 5/6. In the year 5/6 class in which this intervention model was trialled there are 31 children (15 year 5 children and 16 year 6 children.) The school is situated on the outskirts of Derby and its pupils are predominantly white British.

The school offers opportunities to meet and go beyond the National Curriculum and because of the small school environment, all learners need are met with high quality support and deepening the knowledge of those who need it. There are five key values that are promoted at the school. These are: Respect and Responsibility, Openmindedness, Motivation, Independence and Confidence.

2 What I hoped to achieve?

Linking in to the school values of Motivation, Confience and Independence, our school development has a strong focus on developing those skills in children through their resilience. Therefore, the trialling of this pre-teach intervention model was an opportunity to see how the resilience of the children could be improved, which would then in turn affect their progress in a positive way.

3 Characteristics of the children in interventions groups in my school

Currently interventions in my school follow a post-teach structure. Unless the children are on Individual Education Plans, in which case they have timetabled time out of class each week to work on their targets, they have interventions after a lesson has been taught. In maths these are always same day interventions and any misconceptions from the lesson are addressed at assembly time or ‘target time.’ This will involve going over the same work covered in the lesson with focused adult support.

4 What I did in the pre-teach group

The pre-teach sessions were taken by the class teacher and included the same 3 or 4 children in every session alongside another 2 or 3 children who had misconceptions from the previous lessons on the same subject area. The sessions took place every day prior to the maths lesson and lasted between 10 and 15 minutes.

The contents of the session varied, although there was always a strong focus on pre-knowledge, especially vocabulary in order for children to understand what the teacher was referring too when they rejoined the whole class for the lesson. Once the key vocabulary had been defined and modeled in context, then if time allowed, the children would attempt basic questions to allow them to put this knowledge into practice.

I always worked through examples with the children to begin with, in order to scaffold their knowledge. However, once they became proficient at answering questions they began to work independently.

5 Impact on children

Before the start of the project, Child A was a very hesitant boy, he was a lower attaining year 5 and at the start of the year was working on year 4 objectives with adult support in lessons. He was achieving these objectives, but we felt that he could by the end of the academic year be working with adult support on some year 5 objectives. Child A would rarely ever put their hand up in class and would rely heavily on others for answers. His concentration was very poor and he was easily distracted both by his peers and by objects on the table. This behavior occurred mostly during the input or hook task in lessons and was not conducive to his progress. I attributed this type of behaviour to the fact that Child A wasn’t engaged fully and through questioning and my knowledge of the children it was evident that he didn’t actually understand a lot of what the words meant and therefore couldn’t access the tasks.

This was the same to a lesser extent for Child B, another year 5 boy, who clearly did not understand the fundamental vocabulary required to access tasks. However, Child B was different in that he was not easily distracted and would try his utmost to listen and understand.

It was quite evident from the three weeks of pre-teaching every day before maths lessons that these children benefited. In class they were able to access the hook task, they were able to answer questions in the input. Consequently, this has had a great impact on the confidence and motivation of the children.

Both Child A and B are now able to work on some year 5 objectives independently. Their resilience has improved and they are able to complete independent tasks and on occasion move on to the extension tasks where they are able to represent their answers using manipulatives or bar models. The children responded extremely positively to the pupil voice questionnaire after the interventions had been running for three weeks.

6 Advice for other teachers or schools

In my school setting, short sessions of no more than 15 minutes worked well. This allowed my TA to stay in class with the rest of the children whilst I took a small group to work with. For my children, three year 5 boys who were all working on year 4 objectives with adult support, it became clear that they lacked clarity on what certain mathematical terms meant and how they were used in context. Therefore, establishing this during the start of the interventions was crucially important.

It was also important that the interventions were not on an ad hoc basis and were embedded into the timetable of the school day. The only time that worked for us was prior to maths lessons or just at the start of the lesson. I would definitely like to look at how the school day could be re-structured in order for pre-teach to be utilised across school.

Although for my study there is a lack of quantitative data as the children haven't taken any assessments, the greatest improvements can be seen on their motivation, independence and resilience. These changes have had such a huge impact in such a short scale of time that their progress has been impacted. It remains to be seen whether the children would retain such enthusiasm for the intervention over a longer period of time.