

## GOOD PRACTICE PROJECT REPORT

### **Title of Project:**

How can the effective balance of talk and questioning develop pupils' communication and language skills in maths in the early years?

### **Context:**

The study took place at a primary school in the Local Authority of Portsmouth. The school has been through a period of change over the past few recent years. Following the schools OFSTED grading in 2010 of 'Unsatisfactory' the school was automatically placed into special measures and a new Headteacher was appointed. Staff changes and the restructure of the school have now resulted in the school being graded as 'Good' by OFSTED in October 2012. The School Improvement Plan identified the need for questioning and increased talking amongst pupils and teachers to take place throughout the day, particularly in the subject of mathematics. As a new member of the schools governing body, the aim was to become more proactive in improving the school. After attending the teaching and learning committee meetings which have been focused around maths and next steps as a school the discussions furthermore prompted my decision to start considering conducting a research project with a mathematical element.

### **Summary of Project:**

Using carefully planned questions around the topics and areas that the children need support in, the aim is to enable the selected children to develop the skills they require in understanding and speaking to achieve the expected target in maths for the end of the academic year. At the beginning of the year after Autumn term one data analysis, the children were not working towards meeting the level of progress needed to ensure that they would reach the ELG for the strands of speaking and listening and number, shape space and measures in maths.

The activities involved using practical themed apparatus in a game implemented manner to encourage them to make progress with talking about problems that involved one more and one less, sharing fairly and unfairly, counting to 20 and recognising teen numbers and shapes. These are the identified areas of maths on the children's trackers that are required to be explored more in order for them to achieve their target for the end of the year. Working in a small group enabled the children to talk, question and explore their way through activities together.

By carefully planning small group activities and using good open planned questions, the children were all able to talk in a more freely manner and as we progressed throughout the term, the children were more vocal and not as hesitant to ask for clarification or answer any questions that I posed.

### **Methodology:**

A mixed method approach has been adopted for this research study. The research project aimed to use the levels of attainment as a measure as to whether the planned questions and intervention groups encourage progression in attainment and talking and listening skills in maths. As a teacher my aim is to educate and provide an engaging learning environment for children to grow and develop their knowledge and skills so that they can achieve their goals. By conducting this study I aimed to

discover how my practise of questioning with balanced talk can support young learners in their educational development and measure it with their attainment and progress.

Data was collected through recordings of children responses to the activities during and after participation. Observational notes and mark making were also collected to be used as evidence towards the statements of development on the children's trackers.

### **Key Findings**

- The variety of questions planned in accordance to the Blooms Taxonomy resource, encouraged the children to develop their higher order thinking and responding skills.
- Without these carefully planned differentiated levels of questionings, the children would not have necessarily been exposed to using mathematical language in such a manner.
- The young children from this research study have learnt key vocabulary in mathematics and how to use it appropriately in discussions through shared talk balanced with questioning during games.
- Throughout the intervention sessions and games, the children have received support in talking and listening to each through turn taking.
- A small group of children aids children to remain on task and focus on what each of the peers and teachers say.

### **Reflections:**

When I now undertake planning I ensure that I always have the Blooms Taxonomy questioning resource with me at my meetings. It aids me in making sure that the level of questioning I use is varied throughout the large and small group sessions. The resource aided the planning and progress of the children in the intervention groups for this research project so I now apply this practise to my everyday teaching for my whole class to develop talk.

I have also learnt that allowing time for children to respond or time for children to talk with a peer, helps children to be more confident and vocal throughout the school day. Every lesson I plan now involves children talking to a talk partner to answer questions that require a higher level of thinking. The children in my class now have a special place on the carpet and their own specific talk partner. The talk partners or trio when children are absent, are carefully planned and changed accordingly with the ability of the children. Children that are less vocal on the carpet are placed with a talk partner that will encourage them to participate and give them the confidence to answer. When there is a pause and period of quietness in response to a question that I pose I no longer worry I just ask the children to talk to their partner and then we tackle our ideas together as a large group discussion.

### **Key Contacts:**

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