# Best Practice Network school improvement library

## Managing Pupil Premium and increasing the attainment of Maths for PP and KS1 students

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Tags: Primary, Pupil Premium, Maths, Faith school

### The issue

* Tracking and managing Pupil Premium pupils was identified as an area for development by OFSTED
* Need to ensure equal opportunities for disadvantaged pupils
* Attainment gap for PP children in Maths

Due to the nature of the school, only 5% of children in our school are Pupil Premium. As a result, tracking, monitoring and managing the PP children wasn’t a priority. After an OFSTED inspection the school was rewarded with ‘outstanding’ however our areas of development included supporting, tracking and managing children who may come from disadvantaged backgrounds. Therefore, we needed to set up a tracking system, support and monitor the PP children and parents in school to ensure they have equal opportunities/experiences in their educational/home life. In addition, we needed to lift the attainment of maths in KS1 and for PP children due to low results in 2016/2017.

### The solution

* used evidence and data to improve the quality of Maths teaching for Pupil Premium children
* created a tracking system to monitor/manage PP pupils- extract raw data from pupil progress documents and condense PP pupil’s data onto one system. Monitoring their academic ability, social and emotional well-being/support put in place.
* communication changes to staff- Changes were shared, discussed and monitored. Opinions and acknowledgements were taken on board to create an atmosphere of collaboration. The PP tracker/information was available to staff via the Shared Area, influencing a culture of transparency.
* Moderations were conducted in KS1 each term to gain insight of the impact/tweaks could be made. Consistency was evident in each year group and the continuation of expectations throughout Maths in KS1. Year 1 teachers moderated with a partnership school to share expectations and outcomes, ideas for teaching and planning of maths were shared. Year 2 teachers moderated maths expectations in relation to the SATs criteria/expectations. KS1 teachers shared teaching of Maths and English during lesson observations where the partnership school could take ideas/expectations and share their experiences.
* assessment of data/gaps in PP learning/KS1 maths data. I conducted a data summary termly for KS1/PP data. Identifying the percentage of children on track/not on track. The data showed that 80.8% of children were on track and 35% of PP children were on track in maths. However, when assessed at the end of the implementation phase 81% of KS1 children were on track and 50% of PP pupils were on track for maths. It was evident the strategy and systems in place was having an impact.
* KS1 children’s attainment in maths increased by 0.8% and PP pupils by 15%. This indicated that we needed to focus on KS1 pupils equally to PP children. Therefore, we implemented the next stage of resources which included mastery schemes.
* Mastery maths schemes were introduced in KS1 to raise attainment. This included the consistent use of White Rose and problem-solving activities (Nrich) weekly to consolidate learning. Timed mental arithmetic quizzes to improve arithmetic ability.
* I attended pupil progress meetings- with teachers, HT and SENCO to gain insight into KS1/PP pupils. Progress/well-being were discussed which could be recorded and monitored onto tracking system.
* Identify support put in place/amendments for PP children- I could identify and establish what support was needed to maximise the potential of each PP child. In liaison with parents via email/letters, I communicated parent’s preferences’ and updated them on the progress of their PP child/children.
* Interventions were organised/put in place from pupil progress meetings and monitored by the SENCO. This included looking at children in KS1 who needed booster sessions in maths and Graduated Approach/scaffolding put in place.
* book looks/drop in’s/learning tri-ads – I modelled maths lessons and the expectations to KS1 staff and expectations from OSTEDS’s requirements were communicated. Therefore, teachers knew what was expected during drop in’s and the quality of teaching and learning seen via observations and book looks.
* mentoring-supporting staff including students and an RQT. The RGT teacher in KS1 was given the opportunity to share good practices, enabling staff to engage in JPD/CPD opportunities.
* shared data updates with team termly, requirements and goals shared during fortnightly meetings. Realistic workloads/time frames were discussed openly to diffuse concerns.
* Implemented motivational rewards- breakfasts/birthdays/thank you chocolate for their hard work at the end of each term.
* PP Voice- KS1 pupils had the opportunity to share opinions during drop in’s and PP children could share via questionnaires.

After deliberating with the Headteacher, I planned to focus on tracking/supporting pupil premium children. However, after analysing the data we found an emerging trend. A high percentage of PP children were ‘working towards’ in Maths. In addition to managing PP students, we decided to focus on raising the attainment of Maths for PP and KS1 pupils. I analysed the data and I found that 65% of PP were not on track in Maths and 19.2% of children weren’t on track in KS1. This identified the importance of improving standards to close the gap in Maths between PP pupils and non-PP pupils as a key priority. It was clear there was a big gap between the PP children who had support put in place and those who hadn’t received any allocations. I compared the Maths results in KS1 to the results of the PP children and the PP pupils were still consistently lower.

Due to the nature of a Jewish School it is hard to find a fair comparative on the DFE Comparative Schools Performance service linking the analysis/performance of local schools. However, the local and England average score in Maths is 104 and our school scored 111. 86% of our students meet the expected standard in reading, writing and maths, compared to the LA average 60% and National as 61%. Our progress score is well above average in Maths at 4.2. As a result, 65% of PP pupils not on track in Maths was a problem. I focused on what strategic changes needed to be put in place to track, monitor, support and lift the attainment in Maths for PP pupils (including KS1 maths). I created an action plan and designed a tracking system to record raw data and monitor the support/allocations put in place to support each PP pupil academically, socially and emotionally.

The tracking system was shared and discussed with teachers/SENCO to facilitate accurate data and enabled me to update the school’s individual analysis tracking system by Michael Tidd to include a narrative on each PP child, including any SEN details. I had in mind research from my NPQSL course given by C. Reynolds, assistant head, ‘the challenge is making the reasons for gathering data clear to the teachers, and then ensuring that they get that information about pupil progress back in a clear and concise format so that they can use it to support pupil progress.’ The data given by teachers was transferred onto the PP tracking system. I could then critically evaluate what support was put in place and what needed to be implemented to lift the attainment of PP pupils in Maths and effective teaching and provision of maths teaching/standards in KS1.

To design and implement change successfully I felt that I needed to communicate and model a collaborative environment which supports Huxham and Vangen’s approach to leadership. My model included a strategy that ensures communication is key, opinions are acknowledged and valued, as well as the distribution of control. My action plan was shared and openly discussed with the head teacher and SENCO before the design phrase was put in place. Teachers were able to share their opinions and offer positive suggestions when implementing the correct interventions and support given to PP pupils. Nevertheless, I understood the need for Sergiovanni’s authoritative approach when dealing with the allocation of the budget to ensure the financial values and principles were allocated and governed appropriately. This approach also applied to colleagues who didn’t support Huxham and Vangen’s model, therefore I had to think carefully about what leadership behaviours I modelled and how to influence those who were reluctant to change.

Sutton Trust Developing Teachers document highlights the steps to developing teachers/learning. It states there are six components of great teaching, ‘pedagogical content knowledge’ that entails strong evidence of the impact on pupils’ outcomes, ‘quality of instruction’, ‘classroom climate’, ‘classroom management’, ‘teacher beliefs’ and ‘professional behaviours’ (2015). Using this research alongside OFSTED’s standards for ‘outstanding’ teaching I had a good benchmark to evaluate the effectiveness of maths teaching/interventions. I conducted lesson observation throughout KS1/during intervention sessions. My colleagues used the same format and conducted maths lesson observations in their own key stages and sharing results. Through the use of delegation and using our strengths in leadership, it helped me to share my vision and goals with other leaders in school. Moderations of pupil’s work were conducted by myself to evaluate the outcomes of PP children and KS1 conducted maths moderations throughout KS1.

To accommodate the need to improve maths attainment, I set up a mental maths lesson in KS1. Resources such as NRICH/problem-solving activities were used to consolidate weekly learning/improve mastery skills. This was a KS1 weakness. In addition, we created Cracking Addition/Subtraction in KS1 to improve mental arithmetic/basic understanding of number. The expectations were shared in KS1 meetings and with teachers/TA’s who were delivering intervention sessions in maths. All the resources and information were made available through the Shared Area and teachers planning checked. Research from Cambridge Teaching Schools Network focused on developing CPD in the form of learning tri-ads and partners. I believe this research supported my project and through the use of intervention teachers/phase learning partners/tri-ads we supported, discussed, reflected, shared and developed our maths teaching practice.

I wanted my team to focus their time and energy on issues where they could make a difference, i.e. communicating areas/gaps in PP pupil’s knowledge in maths to intervention teachers, looking at how they could increase their support in class and lift the attainment of mental maths. Not only did this approach improve the children’s confidence but developed leadership behaviours in staff as they were able to work collaboratively with colleagues and have personal drive to reach the end goal.

Developing the consistency between year groups and PP intervention sessions developed the communication of children’s individual learning needs were met and offered CPD opportunities to highly trained TAs. Interventions not only improve PP children’s academic ability if delivered sufficiently but increase the child’s confidence.

I investigated reasons for gaps in the teaching of maths and identified what support was put in place for each PP child. This included a data analysis/summary of KS1 maths results and the PP maths results for the Autumn term. In addition, I reviewed our high priorities in our most recent OFSTED report whilst looking at the previous SAT’s/school results in 2016/2017. The SAT’s results in 2016/2017 showed that only 65% of pupils achieved expected in their year 2 assessments.

I planned a strategy to lift the attainment of maths of PP/KS1 children whilst tracking and support PP pupils. This strategy included collecting raw data, creating a tracking system, research on successful observations/book looks and conducting them, learning tri-ads, pupil voice, moderations within KS1/partnership school and looking at the policies, assessment and marking of maths. This enabled me to evaluate the effectiveness and impact we had on improving the standards in maths. I believe verbal feedback/simple marking would be beneficial in KS1 and during PP intervention sessions rather than deep marking and over assessing. As the EEF, 2017, states ‘we should look critically at the reliability, validity, purpose’. Therefore, I knew I had to mentor, coach and support staff to develop their teaching practices and provision to PP pupils. I asked staff their opinion on the strategies I intended to use and acknowledged their suggestions. In the process I anticipated several barriers to be overcome when introducing new initiatives which allowed me to tweak my change management action plan.

In order to motivate and influence my colleagues through my role in school and through my project, I conducted a DISC questionnaire by Tony Robbins a business performance coach. The results provided information on each colleague in my team in regards to their strengths, weaknesses, how they learn and what motivates them. I could then establish what needs my team had and how to motivate them. In order to motivate and influence colleagues, I ensure, I lead by example and model the growth mindset and emotional intelligence.

I prepared a Business case in alignment with the school’s financial position. Due to the nature of redundancies and a small budget, the Business Manager/Head teacher felt we had to be resourceful and use the assets we had to facilitate the project. Using the DFE Financial efficiency tool (primary) helped me to access our position and look at being efficient with the PP funding we receive.

The ‘do nothing’ option entails students to be support in class without interventions, however this option highlights the issue that OFSTED picked up on, that PP pupils deserve to be supported and given an equal opportunity. The other options detail the best value for money strategies and how we can establish a clear and immediate impact of the teaching/learning of maths for PP/KS1 children.

The research from Cambridge Teaching/Schools Network focuses on how professional development in the form of cross-curricular, cross-phase triads impacts on classroom practice. Teachers were given a triad across phases and had peer observations, shared practices and had structured discussions to reflect on their progress. They looked at how they could improve practices and implemented their ideas. The teaching strategies used; giving examples of excellent work, checklists, stimulus, writing reminders and introducing analytical writing strategies (point- example- explain) to young pupils. The concepts could be tweaked and applied to the mastery of maths.

Following my implementation of my project and learning triads I had some resistance from a member of staff. Therefore, in order to overcome this barrier, we had an open/honest conversation where I shared the vision and reasons for the project. Once my colleague understood after having regular team meetings and reflected upon the realistic time frames, they decided to support the change. I modelled change and impact to influence my team to work together with the intervention teachers to deal with any misconceptions/concerns.

I introduced new initiatives to raise the attainment of mental arithmetic and the mastery of maths. I found my research on Chinese Maths strategies useful.

Singapore’s educational system has a reputable impact on the globes education system, due to the fact that countries around the world are mirroring their practices. This indicates that educational is a high propriety as they are a small country that wants to be self- sustainable which comes from investing in the education of their people. Consequently, focusing on teacher training and developing strong leaders that contributed to their success.

Introducing problem solving tasks weekly enabled teachers to grasp a full insight to the children’s understanding/how to meet their needs. Teachers were on board with the changes as they saw the impact on the children’s learning. The children enjoyed their arithmetic challenges such as Cracking Addition and Subtraction. Teachers in KS2 were also using the programme Nrich and a similar arithmetic strategy called Cracking Timetables. I worked with the maths co-ordinator to ensure all teachers were using the White Rose scheme consistently in each year group.

In order to gain the support of stakeholders, an information and entitlement letter was sent to all parents as well as PP parents. Parents responded and a new child was added to the list. I discussed with parents how we could support their family and child in school, this included the options such as intervention sessions, music lessons or paying for school trips.

Through my project, I thought about the needs and priorities of my project and how to communicate them appropriately to the relevant audience. This included the promotion of my plans and the defending strategies chosen. I thought about the needs of the children and how to facilitate appropriate resources/training to meet their needs. I had to adapt my approach to JPD with one member of staff who refused to obtain the idea of learning tri-ads due to her workload during the KS1 SAT’s. Due to the team’s feedback, we postponed the launch of learning tri-ads until the SAT’s were complete. I researched the best possible strategy to motivate staff who were reluctant to support change. In doing so, I was able to have fortnightly meetings to listen to this member of staff and develop their emotional intelligence to influence their attitude. The impact of the changes on the children’s confidence and data were shown.

The SLT team were aware of any barriers/risks and worked with me to dissolve any issues amicably. Our partner school supported our campaign using JPD and worked with us when moderating/sharing lesson ideas during drop in’s. We worked together to support the moderation of SAT’s expectations and to raise the attainment in Maths and English, as this was a key priority for both schools.

### Impact

* Maths attainment in KS1 has risen-80.8% to 93%, a percentage increase of 12.2%
* Maths attainment in PP has risen-35% to 60%, a percentage increase of 25%
* Year 2 Maths SATs results improved and 92% achieved expected/greater depth
* The gap between KS1/PP children is closing in maths
* PP tracking system has been put in place to assess, monitor and support pupils
* An allocation list created to track the support given to PP children
* A business plan/budget allocated to support PP children
* KS1 teaching/learning in maths has improved using a variety of resources and strategies
* Lessons drop ins are now good and outstanding
* Quality and presentation of maths work has improved from conducting book looks
* Teachers feel more confident teaching, planning and assessing maths in for KS1/PP pupils
* Interventions are meeting PP children’s needs and teachers are using small groups to boost maths attainment to support those who are not making progress
* Communication within KS1 has improved
* PP needs are communicated by teachers/SENCO
* Verbal feedback has made an impact to teaching and learning outcomes during the marking process
* Children are given time/resource to edit work with a purple polishing pen including challenges
* Mastery of maths is a common goal, lessons are exciting and differentiated, Engaging pupils
* Objectives are clear and teachers feel creative/enthusiastic teaching maths
* Maths displays reflect the children’s outcomes/ learning concepts, tidiness of classrooms is improving
* I have developed as a senior leader, designing, implementing and evaluating strategic initiatives and communicating the vision to other colleagues. I have developed by knowledge of data and how create data summaries for SLT/my team.
* I have developed my leadership behaviours. I’m resilient when facing risk and I have learnt to work collaboratively to strengthen outcomes