



# Research based coaching tools

In this handout we will explore the following research based coaching tools and how you can use them to support you in your role as Maths Champion.

- Math's anxiety counselling
- Skills mapping
- Review of your current planning
- Training
- Coaching meetings
- Modelling and demonstration
- Buddying/shadowing
- Practitioner & peer observations
- Moderation
- Reflective Journals.

## **Maths anxiety counselling**

Geist (2015) emphasises that 'early years teachers who do not feel confident in maths tend to avoid teaching it'. Geist recommends making teachers feel more comfortable with and increase their confidence in their maths ability.

As part of your coaching role, the first step in supporting staff's maths confidence may be to discuss their previous experience with maths to identify if there are any contributors that may be making them feel anxious. Perhaps they had a negative experience at school or as an adult or poor exam results and this has led to them avoiding the subject. Talking about these experiences and getting them out in the open can help relieve some of the initial anxiety.

'Making maths count – Transforming Scotland into a maths positive nation' (2016) recommends highlighting the ways in which people are proficient in maths in their everyday lives e.g. shopping, driving, sports, cookery to help relieve anxiety around this.

Once you've discussed any anxieties it is then your aim to identify and build on staff strengths. It isn't about identifying areas to improve but looking at areas where staff are enthusiastic and confident, e.g. singing, outdoor games, sharing stories with children, snack time, expressive arts and looking at ways in which they might incorporate counting and numbers into those areas as a starting point.

## **Skills mapping**

It is a good idea to not only to look at what coaching support staff may need to develop confidence but also what confidences staff have which could support you in your coaching role.



You may have a staff member who is very confident in their understanding of how the environment can support maths. You could therefore ask this staff member if they could explain/model to staff what they are doing and why, to help less confident staff grow in their ability in this area.

Staff learn very well from other staff – this can help develop confidence and also support staff who are resistant to change. If something is happening all around you and everyone else is doing it, it is hard to resist change. Sometimes actions speak louder than words!

### **Review of your current planning**

Whatever form of planning you use, this is an opportunity to review and reflect to ensure your maths curriculum intent and implementation are strong and clear. Encourage and support staff to revisit planning in the rooms to ensure there is a wide range of maths opportunities available on a daily basis.

This may involve meeting with staff room by room to explore what is provided and what they feel their role is in relation to supporting children's maths confidence.

Do staff know what their role is in supporting children's maths learning? If they don't know then how can they improve on this? Remember we only know what we know. You could add top tips onto planning sheets, around the rooms or on staff notice boards, so staff are clear what their role is in relation to supporting maths in each area and also what to observe. This will be extremely helpful for staff if they move around different areas/rooms in the setting and to support supply staff covering staff absence.

### **Training**

In order to develop confidence, staff may need training to increase their knowledge in particular areas. Why not develop a professional development plan outlining what training you need to cascade in-house to all staff, as core training, and what specific training any staff members would benefit from to develop their confidence.

If you are going to deliver face to face training, consider when, where and how this will be done. It will ideally need to be done in bite size pieces so staff have an opportunity to reflect, ask questions and discuss ideas linking it to their own practice.

In any setting there will be difficulties getting the whole staff team together for training due to things like staff absence and shift patterns. Here are some other ideas as to how you could support staff's professional development and ensure all staff have access to information:

- Access online training (which may also reduce costs)
- Record webinars and podcasts and email them out to all staff, or watch/listen to together at a staff meeting
- Deliver bite size training sessions during team meetings
- Develop short fun quizzes when you need the entire team to demonstrate they have a common understanding
- Use the staff notice boards to post up magazine/journal articles to share and discuss with staff; encourage staff to do the same
- Share ideas and top tips from websites that promote maths ideas



- Create a 'maths mastery' message board and share best practice linked to maths which is happening across all rooms in the setting.
- Celebrate staff achievements and successes (this is a good motivation technique)
- Network with other settings to arrange visits to observe good practice
- Write blogs and articles on a staff area of your website
- One to one meetings
- Professional discussions
- Supervisions.

### Coaching meetings

You will need to consider how you will have regular contact with staff to monitor progress against the action plans.

Here are some ideas to consider:

- Identify a contact person in each room who is responsible for communicating with you on a regular basis and can attend a coaching meeting
- Add 'Maths Champions' to each staff meeting as a set agenda item
- Commit to a time limited coaching meeting with the whole staff team or each room – How often will these take place and when? Could this be over lunch or during a quieter time of the day? Can staff commit to a 15-minute meeting after work?

The amount and timing of coaching meetings may vary according to how much progress is being made towards actions. As a coach you may decide to have two coaching meetings one week, as there are some key priorities to achieve, or if things are going really well you may decide a coaching meeting isn't needed. If things are on track replace a coaching meeting with a celebration event to boost staff confidence. Give out certificates of achievement for a range of tasks/contributions across the staff team. Staff could nominate each other which will help them identify good practice.

### *Structure for a Coaching Meeting*

- In keeping with the role of a coach, a coaching meeting involves asking questions, listening and reflecting: rather than directing, showing, telling, or teaching.
- As coaching meetings may be difficult to arrange, they must be concise, lead to action, and hopefully, to greater impact.
- Ask for feedback on what has been happening, have changes been maintained since last time?
- Review any actions from the previous session
- Review successes (link this to the action plans)
- Review any obstacles – encourage staff to report any failures. The coaching meeting can then focus on encouraging problem solving, reviewing any habits, patterns, self-limiting beliefs etc.
- Explore what staff want to focus on (how does this link into the focussed improvement plan)
- Devise an action plan for next session.
- Encourage staff to inform you of any difficulties as they occur rather than waiting for the coaching meeting, so a change of action can be discussed immediately to ensure progress towards improvement stays on track.



To help improve performance as a team consider asking staff for ways you can improve in your role as coach to help them reach the performance goals you've set together. During the discussion, keep an open mind, remain flexible, and maintain perspective.

### **Modelling and demonstration**

As we know some people learn more from seeing things in practice. Demonstrating or modelling of good practice that can be observed by staff and then discussed and analysed afterwards, has many advantages. When an activity or effective practice is modelled, staff will see, hear and experience the event in a real-life context. It will help to present ideas and concepts more clearly and will reinforce learning.

In order to be successful modelling should:

- Have clear intended outcomes - have you agreed with staff the specific focus, purpose and outcome of the demonstration?
- Take into account the staff members previous knowledge and expertise so it can develop their confidence and learning
- Be carried out at an appropriate time (for both staff and children)
- Have an agreed method of evaluating the impact on practice.

It is important that the demonstration leads to changes and improvements in practice. A discussion should take place as soon as possible after the demonstration, covering:

- What was observed
- How this differs from existing practice
- How changes can be made to practice
- How staff will implement any necessary changes to practice.

### **Buddying/shadowing**

A buddy system, or shadowing another member of staff, is about helping your staff learn from each other. It involves teaming up individuals to provide a supportive network where staff can discuss progress and give constructive feedback.

This method can help staff to develop their skills through informal learning and they see how their buddy does things so they can copy, which can help them develop their skills and confidence. Informal chats with experienced and confident staff members can be vital in letting less confident staff know they're doing a good job. Having a buddy system can be really effective in getting staff on board with your values and vision much faster.

Consider how this would take place in your setting:

- Are you or the Deputy Maths Champion room based and could take on this role?
- Are there any strong staff members in rooms that would be a good role model?
- Do you need to move staff around to buddy them up with more confident staff and how will this work in practice?

### **Practitioner & peer observations**

Observation is an effective tool in gathering evidence to build up a picture of staff's skills and confidence. It will enable you to identify strengths and improvements and provide opportunity to discuss the next steps in the staff members learning journey, supporting staff to be self-reflective and improve the quality of their practice.

Staff observations may already be common practice in your setting. If not, ensure this is introduced clearly to staff as a support tool. It may be a good idea to demonstrate how an observation will be carried out by modelling this with your Deputy Maths Champion. This will help to relieve any tension and anxiety staff may have.

In order to be successful observations should:

- Have a clear process – will staff be formally observed as individuals or will there be a mix of formal and informal observation of the staff in the room across the session? What time and for how long will the observation take place? Will it be carried out with the coach modelling alongside or just watching, will the coach give prompts? Clarifying the process means staff know exactly what to expect from the coach during the observations and this relieves anxiety.
- Have a clear focus – staff should be fully involved and actively engaged in the focus and purpose of the observation in advance.
- Have an agreed feedback process - how and when will you feedback?

This is an opportunity to praise the efforts and achievements of staff, giving any constructive feedback. Positive feedback helps develop confidence, and constructive feedback allows for a change in the person's practice.

### *Giving Constructive Feedback*

It can be a daunting task giving constructive feedback to staff. However, the benefits of this are that the staff member gets an opportunity to develop their skills, or change practice, which leads to children receiving the highest possible quality experiences. (Remember some staff just don't know what they don't know!)

Here are some useful prompts for giving constructive feedback:

- Decide on an appropriate time to hold the discussion when you can both/all give it your full attention
- Feedback should take place as soon as possible after the observation to have the greatest impact
- Encourage conversation: share your observations and encourage staff to respond
- Ask open questions, e.g. 'How do you think the activity went?' 'Why did you decide to add in those resources?' 'How did you feel about the discussion?' 'Where do you think the activity went well/was less successful?' Focus on the impact on children's learning
- Don't just describe what you observed, reflect on what you saw and support staff to reach their own conclusions about the quality of their work/ interactions, i.e. their own strengths and areas for improvement
- Avoid being prescriptive, e.g. avoid telling staff, 'you should...', 'it would be better to...'
- If there are substantial areas for improvement; concentrate on one or two significant areas for development and ensure you also feedback strengths



- Give more positives than areas for development. Try to use the 'sandwich approach'; with a positive comment followed by an area for development ending with a positive comment
- Encourage staff to end the feedback session by recounting the areas of development and what they will do differently – including timescales for any actions.

If it is already common good practice in your setting, or you feel staff are ready to, then support them to observe each other in rooms with a particular focus on identifying how they support children's maths confidence. Peer observation is about staff observing each other's practice and learning from one another. It aims to support the sharing of best practice and build awareness about the impact of your own teaching. If staff are responsible for observing each other's practice, they will start to identify maths opportunities more readily.

### **Moderation**

*What is moderation?*

Moderation is a process in which assessment practices (observation, assessment, planning) and decisions are regularly looked at and evaluated to ensure consistency and accuracy of judgements.

*Why should I moderate?*

Whenever a judgement is made about a child's development, progress and learning we make decisions which could be described as subjective as they are based on our own thoughts, knowledge, opinions and influences. For these reasons the judgements may not be robust and reliable, especially when we are looking at children's learning.

By observing children together and discussing the maths learning you can make more reliable decisions which are professionally informed and robust. Encourage staff to moderate in rooms to ensure children's assessments are robust. Introduce a moderation session in rooms as part of common practice; how will this be done ensuring it can be sustained as best practice moving forward?

Moderating staff's judgements will:

- Support the professional development and confidence of the individual as they observe, analyse and plan children's next steps for mathematical learning. Talk together about what you are seeing children do, say and think. This will help to develop a shared understanding of how children learn
- Ensure that there is a shared understanding of children's development and progress which will lead to consistency of practice.

### **Reflective Journals**

A reflective learning journal can provide staff with an opportunity to:

- Record their thinking and views
- Change their assumptions
- Formulate new opinions
- Develop critical reflection skills
- Learn about the type of practitioner they are
  
- Define their pedagogy
- Plan for the future.



Completing a reflective journal has to be something that staff are motivated to engage in, have time for and the skills for self-analysis and reflection. Offer staff the opportunity to keep a reflective journal, it may help them on their journey of discovering maths confidence. This could be a room journal or staff may wish to have their own individual journal.