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Collaborative Maths Leadership

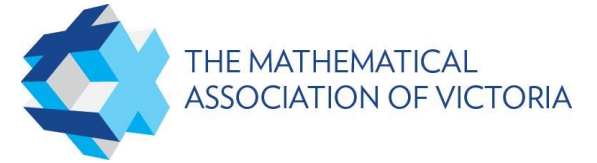
Jennifer Bowden

MAV

Jen Briggs

Derrimut Primary School

Our Story



- 2014- MAV and Derrimut worked on a collaborative partnership to build teacher capacity across four schools, funded by the Department of Education
- 2015 & 2016– MAV and Derrimut Primary School continued our relationship through a coaching process.
- 2017 – The coaching process and relationship continues.



Who is Derrimut PS?



- Derrimut Primary School – Opened 2010 – Current Enrolment – 798
- Approx 55 staff in total
- Principal, Assistant Principal x 2, Leading Teachers x 6-7
- Jen Briggs moved from being a Maths Leader, Leading Teacher to (new role) Acting Assistant Principal
- Open plan learning environment, collaborative team planning and teaching



MAV / DPS Coaching Model



- 4 weeks
- Each week work with 2 communities, with three teachers in each community.
- 2 hour blocks. 1 hour modelled teaching/1 hour lesson debrief, pedagogy and planning.
- 1st and 2nd week MAV Consultant models
- 3rd and 4th weeks Derrimut teachers model.



DPS Approach



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Scope - Unit Overviews (Victorian Curriculum, developmental continuum, professional learning resources)

Team Developed Unit Designs (Rich tasks, proficiencies, targeted teaching – groups and prompts)

Launch, explore, summarise, review lesson structure

Map student learning on SOLO



Professional Learning Architecture



What does this currently look like at your school?
How can you use the time and space flexibly to maximise professional learning?
Who are your early adopters?

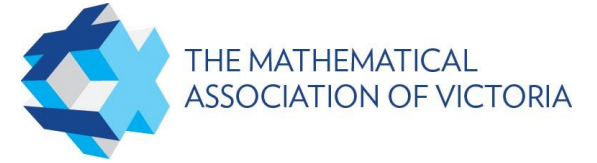
Professional Learning x 2 afternoons p. w (1hr 20 min) – Alternate PLC and PLT

Mentor Meetings/Partner to learn – Alternate 1hr fortnightly

Facilitated collaborative planning (2 hrs) and LT classroom support – (3 hrs)

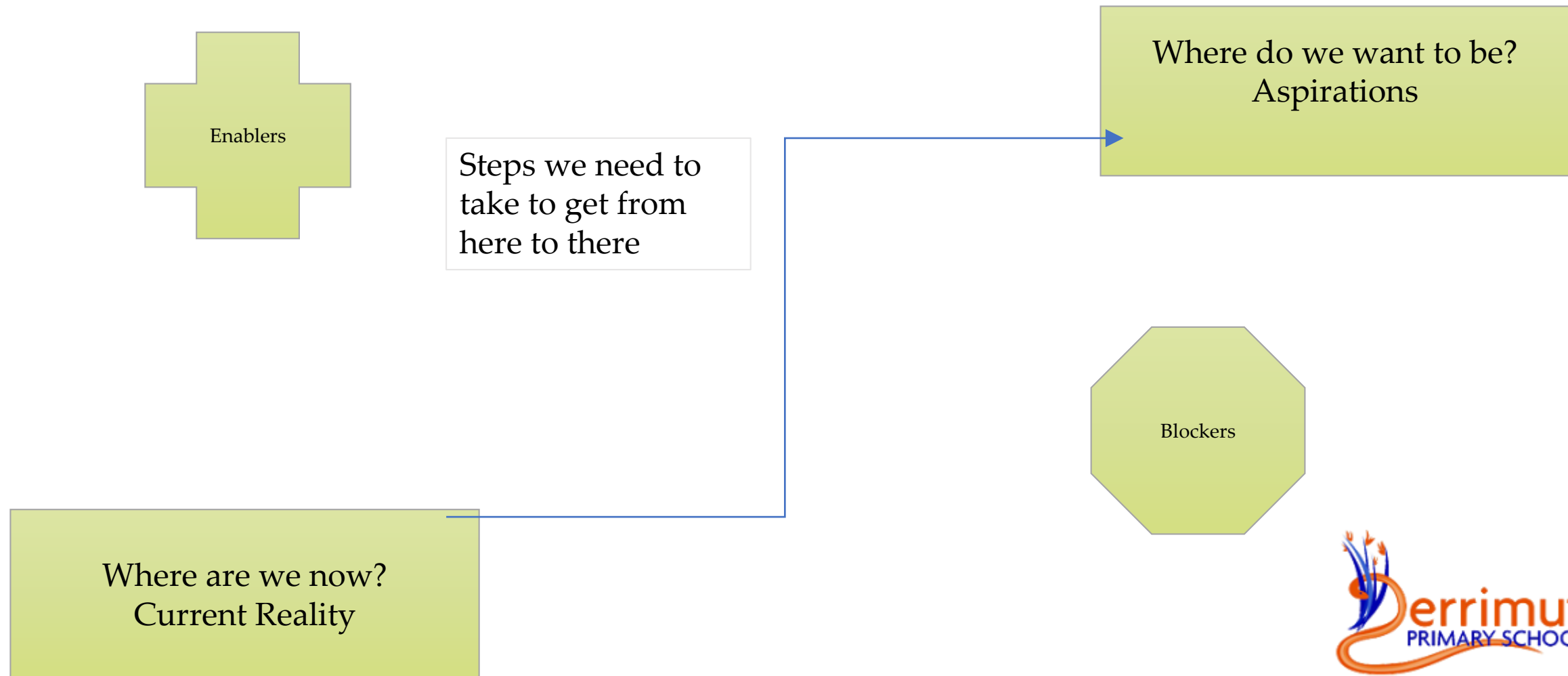
Coaching Partners – numeracy (MAV), literacy, – (4 weeks cycles)

Shared Vision and Philosophy



- Collaborate to create a vision
- Unpack personal and professional belief systems around teaching philosophy in general and for mathematics
- Consider a Bone Diagram – Current Reality, Aspiration, Steps to Get There, Enablers and Blockers





Curriculum & Instruction



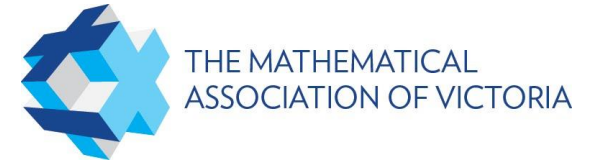
- Co-create using existing work – Find key resources that align
- Sift through existing resources and file strategically
- What supports might whole school and individual teachers need? content, pedagogy and pedagogical content
- Alignment is key! Launch, Explore, Summarise, Review model – structure, pedagogy, criteria



Assessment

- Story Telling with Data – Patterns, wonderings, anomalies, multiple sets, assumptions, how will we test our assumptions?
- Track point in time data, growth data, relative growth data and students at risk (below, above or stagnant)
- Assessment Schedule - be strategic, align with beliefs - e.g., investigations and rich tasks approach tested with written tests ???
- Find the balance - too much/not enough, formative/summative, written/interview

Learning Partnerships



- Teacher and student learners
- Community and parent partnerships
- Professional networks
- MAV – PD, coaching, resources, conference, journals
- Share PD costs with local schools



Leadership Reflections



- Each 'failure' is a stepping stone
- Leadership is not one size fits all – others' errors ? your successes
- Convincing grown ups and kids they are mathematicians is critical
- It is never finished! Aim for better than your best every day
- Readiness doesn't always come when it is convenient
- Deep learning is socially constructed through collaboration



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Our Coaching Model



1. School Numeracy Leader discusses the team's goals for professional learning and coaching and shares this with the consultant.
2. Consultant creates a flexible plan for the cycle.
3. Consultant models a lesson that meets the team's professional learning pedagogy, planning and practice goals. Team discusses the lesson and the plan for the coaching cycle, further team goals and requirements for development.
4. Consultant models a lesson based on the initial lesson, team goals and requirements. Debrief focuses on the lesson, progress of the team's unit plan development and teacher professional learning.
5. Teachers model lesson to consultant and/or team. Feedback is given on the lesson and specific lesson or teaching pedagogy focus. Planning for the next lesson and unit development is discussed.
6. Teachers model lesson to consultant and/or team. Feedback is given on the lesson, future planning, professional learning, required resources.
7. Feedback is gained on the coaching cycle from the teaching team, MAV Consultant and school mathematics leader.
8. MAV Consultant continues as a "friend" to the teachers and school.



Initial Advice from Maths Leader

Very enthusiastic team

One experienced leader, two graduate teachers

Focus on measurement

Teachers would like to look at:

- lesson structure,
- assessment practices
- differentiation
- planning units to inquiry into numeracy (currently measurement and big idea- place value)
- teach through play

We have been seeing a recurring pattern of low grade two data over the years so maybe we can challenge our teachers about how they are lifting and extending students

Lesson Structure



Warm Up

Launch

Explore

Summarise

1st visit – Modelled teaching



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Modelled a lesson focusing on inquiry into number and mathematical language.
Lesson focus was on lesson structure, differentiation, threading the big ideas and play (drawing).



2nd visit – Modelled teaching



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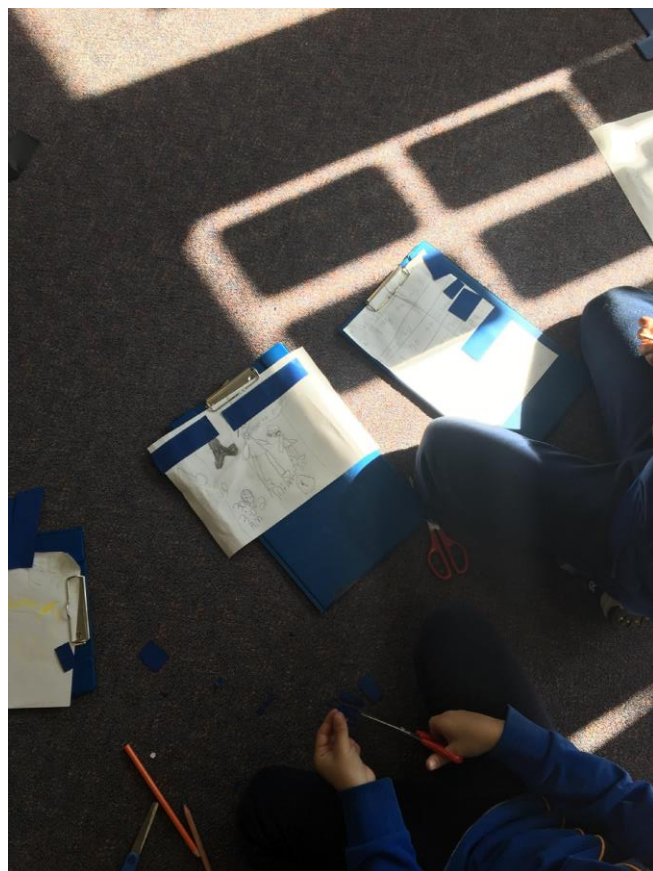
Inquiry lesson, students worked in pairs to find objects equal to shorter than or bigger than a given unit of unifix cubes. Enabling prompt (Small group focus of smaller than 6), Extension task (Small group focus on formal units) Additional MAV Consultant attended to support a team teaching approach. Added focus of assessment and differentiation.



3rd visit – Modelled teaching



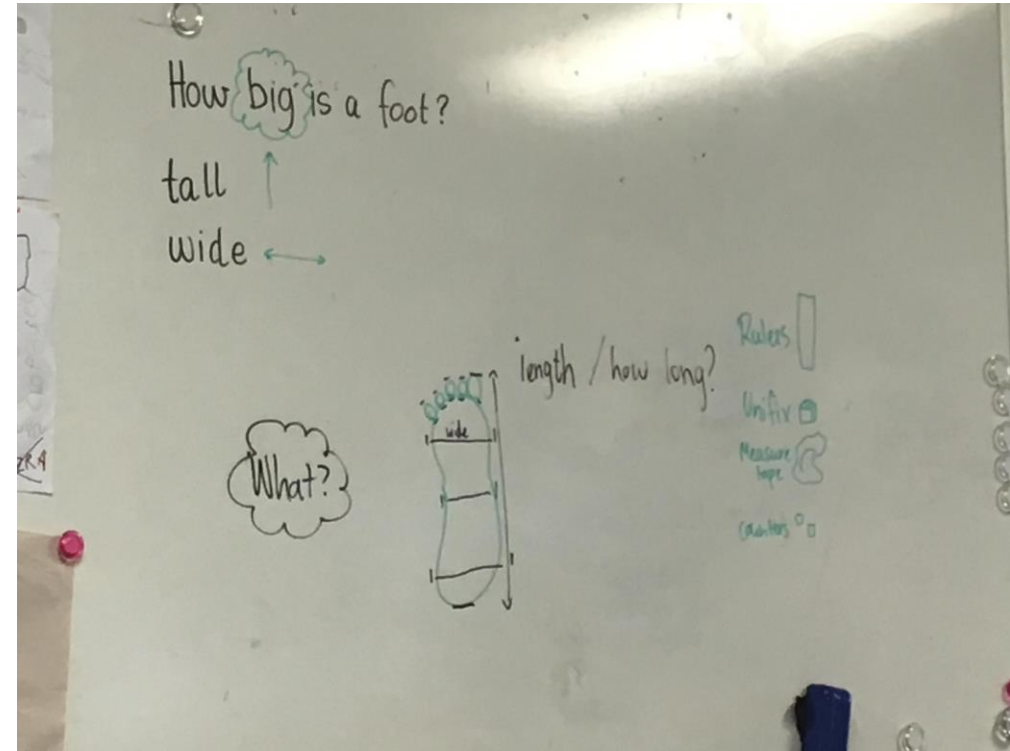
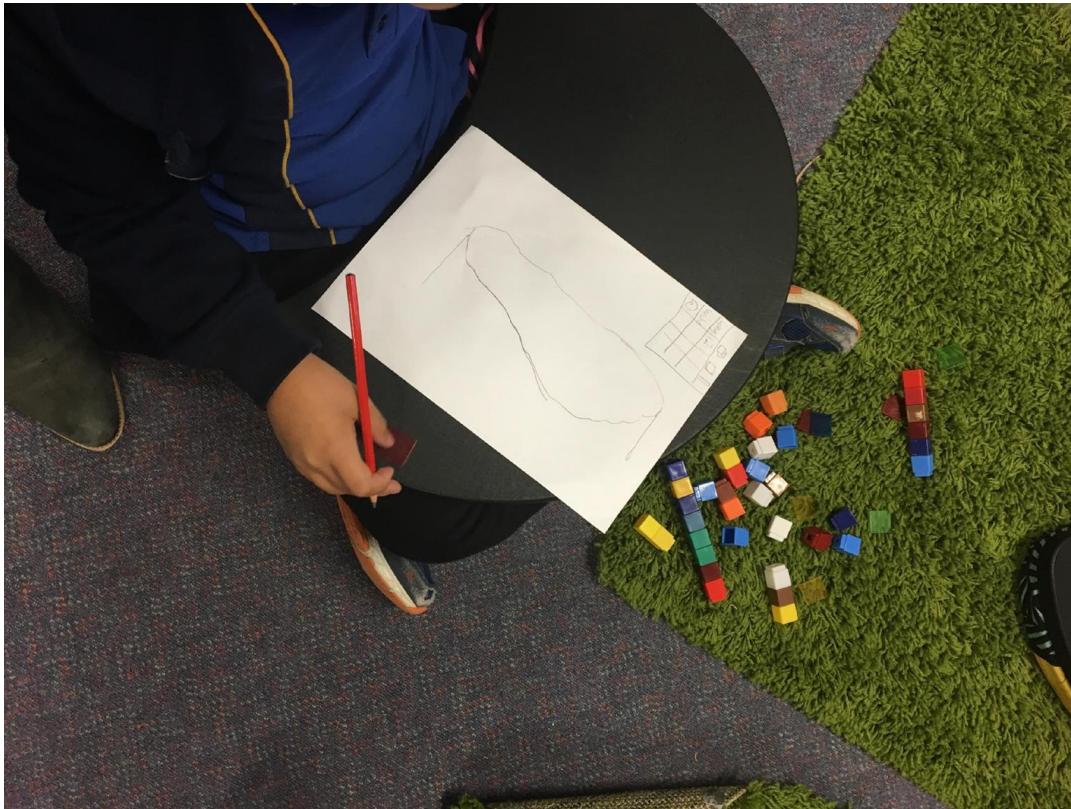
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4th visit – Modelled teaching



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Was the coaching successful?



Teachers were focused on improving:

- lesson structure (Launch, Explore, Summarise)
- assessment practices (improved practice on collection of data and sharing data)
- differentiation (using enabling prompts and extending tasks)
- planning units to inquiry into numeracy (threading place value and number sense)
- teach through play (inquiry based - questioning and self discovery)



Feedback



I loved watching Jen work with our students, it proved engaging and encouraged us to reflect on parts that were successful and how we could emulate these in our own practise.

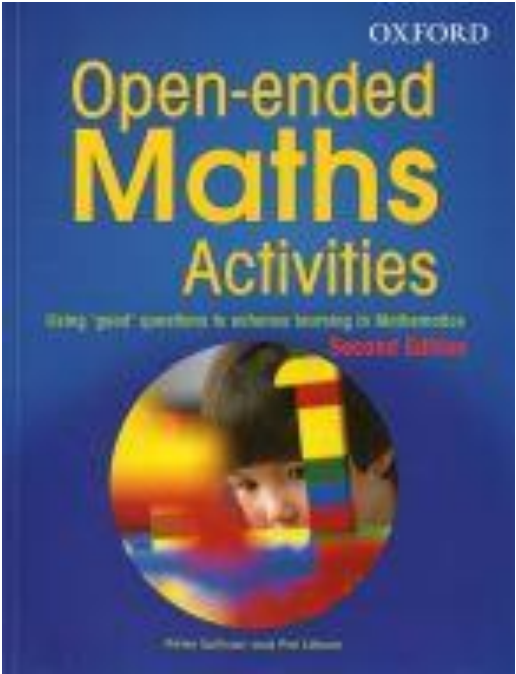
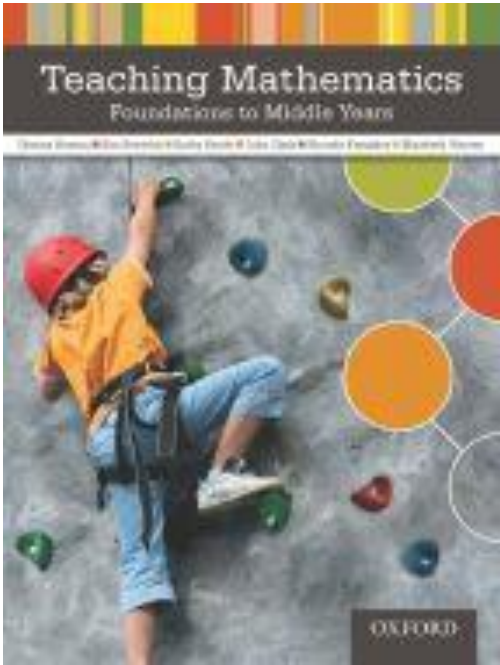
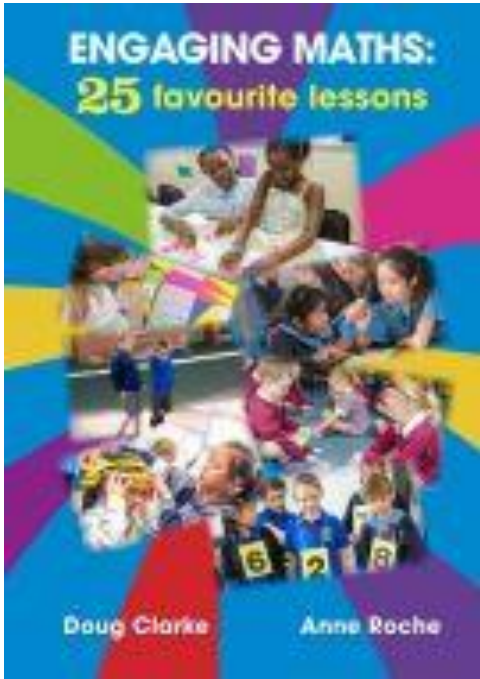
I loved the spinner game for make to ten and the book the blue thingamajig. But also the strategies of using a table to organise ideas, and how to effectively provide enablers and extensions that are the same task but simply modified in ways suitable for the learners.

Throughout the sessions we were able to observe, practise and discuss the ideas and issues that we had and work towards constructing joint ideas about efficient teaching and learning practises.

I have had ideas around enabling and extending; how to identify students (not pre-grouped but through observations) and the flexibility behind what to do to meet their needs. I also was able to discuss my own ideas and the blockers of my team in a way that encouraged collaboration.



Resources



Feedback & Questions

