

Lesson Study Project 2020

Schol: **St. Oliver's National School**

Drogheda, 23049H

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Our School Context

St. Oliver's National School is a Catholic ethos 16 classroom co-educational, urban, vertical school situated on the Ballymakenny Road in Drogheda. The school was established in 2010.

Our current school population is 435.

We have 24 teachers, 3 SNA's and 4 Ancillary Staff.

We are fortunate to share a campus with Ballymakenny College (Secondary School).

Our Goal

- Positive attitude to Maths
- Being able to link and connect strategies from previous learning
- Explain their reasoning behind their strategy
- Become a critical thinker, how strategies all connect to each other (patterns, repeated subtraction & division)
- Children taking ownership of their own learning
- Children to be good communicators and talk through problems
- Independent thinkers - children have practical problem-solving abilities
- Building confidence in children's Numeracy ability - children encouraged to show their strategies - teachers praising where the children have used correct strategies
- Children can show their learning in lots of different ways

Research Question

How will children demonstrate understanding of price comparisons, identifying products that achieve the best value, integrating their knowledge of measurement, place value, money, decimals, division and data representation?

Planning Process

Identified area of focus: Measures & Place Value
This was based on whole-staff discussions & standardised test data

Research articles we explored:

- Primary Maths Curriculum
- Learning to measure length (Drake, 2004)
- 10 Big Maths Ideas (Burns, 2004)
- PDST Measures Handbook (PDST,2016)

Exploring possible resources: Online resources, existing resources, maths eyes, PDST Measures Manual

Calculation strategies and methodologies to promote understanding of the unitary method.

Pre-taught these with the class

Digital Technology & Assessment

Pupils have access to Chromebooks so these were incorporated into the lesson.

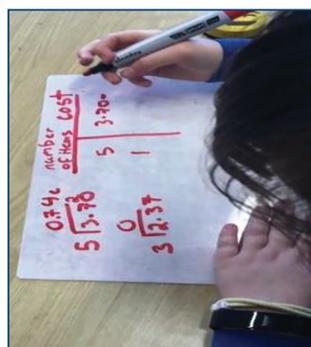
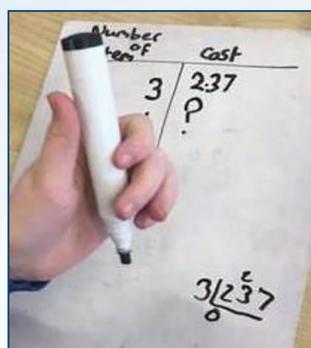
Planning & Logistics for the research lesson

Each member of the team took responsibility for preparing resources & various aspects of the lesson
In between each visit, team members met to discuss and tease out the potential activities

Team members also discussed pitching the tasks at an appropriately challenging level.

It was also decided that it would be helpful for

- the teaching teacher to meet the pupils
- the pupils to be pre-taught some of the key strategies (t-chart) which they would draw upon for the main research lesson



Teachers' Reflections on the project

Key learning

- Highlighted the need for pupils to have conceptual understanding & that pupils look at tasks more critically
- The engaging nature of having tasks in maths that are linked to real life
- Having different teachers' views on things added to the process (in terms of ideas, resources, teaching approaches, etc.)
- Pitching the lesson at the more challenging level
- The value of tapping into children's prior knowledge & meet them where they are at. Asking ourselves as teachers "What do children need to be able to do/need to know to access the planned task?"
- The value of tasks which enable collaboration and balance between teacher-led & child-led
- The nitty gritty of the activities that the children are engaging in- how can we plan for maximum benefit/ collaborative learning?



Implications of Lesson Study for whole school teaching of mathematics

- Give pupils opportunities to apply their bank strategies across other aspects of maths- do this in an explicit way
- Increase collaboration between teachers, for example sharing ideas/resources from courses
- Teachers teaching different classes and how the pupils benefitted from this too ("Team teaching")
- Whole school approach to strategies which is used developmentally across the whole school

Opportunities

- Collaboration with colleagues
- Child-focused learning, meeting the children where they are at

Challenges

- Time for planning - It took a lot of time to plan just one lesson
- Creating & scheduling meeting opportunities
- Creating a clear and explicit series of activities to consolidate discussions- clearer structure to what activities were going to be chosen for inclusion in the teaching plan
- Pitching lesson at the right level

Possible solutions

- Planning for a series of lessons rather than one lesson would be a more efficient use of the time
- Teaching teacher should meet the class beforehand
- Pre-teach some of the key strategies that will be coming up during the lesson



References

Burns, M. (2004). 10 Big Maths ideas. Instructor magazine: Scholastic.
Drake, M. (2014). Learning to measure length: The problem with the school ruler. *Australian primary mathematics classroom*, 19(3), 27.
PDST. (2016). Measures handbook. A guide to teaching and learning in Irish primary schools. Dublin.