SSE Report: **Teaching and Learning of Maths in Scoil Bhríde**

Focus of the Evaluation:

Numeracy- Developing the teaching and learning of mathematics in Scoil Bhride.
Learner outcomes: The attainment of curriculum objectives.
Learning Experience- Number Fact strategies will be displayed and Maths will be taught using team teaching with ability groupings in the class room.
Teacher Practice- teachers will focus the assessment on the curricular objectives.

Context:

- Scoil Bhríde is a co-educational developing school.
- There are 50 staff members (24 class teachers).

In September 2012, a numeracy group was set up so as to discuss areas that needed improvement in the school. This group met monthly and more often if necessary. Resources for maths is a major issue in the school so a Strand unit timetable was piloted from September 2012/2013. It was reviewed at a staff meeting in May 2013.

A teacher was also concerned about the need for teaching number fact strategies. A first class teacher and a 4^{th} class teacher piloted specific teaching of number facts to the classes in question. This was reviewed at a numeracy meeting in April 2013.

An objective template was designed and distributed to the whole staff. It included objectives from the previous year that may need to be revised and objectives for the coming year. It was used as a long term plan and also as a checklist for assessment. In this template, the number strand was chosen based on and linked to the other strand that was on the timetable.

In 2012/2013, two mainstream class teachers were trained in Maths Recovery. These two teachers spoke to the staff about Maths Recovery at a staff meeting in May 2013.

It was decided at a whole staff level that analysis of the Drumcondra Mathematics assessment would be a good way to highlight both the strengths and weaknesses in this school. We used teacher observation and teacher designed tests to portray areas of difficulty also.

The numeracy group decided that a random selection of tests should be analysed from the year 2011/2012. 3 tests were chosen from the 11^{th}-50^{th} percentile, 3 tests were chosed form the 50^{th} to 75^{th} percentile and 3 tests were chosen from the 76^{th}-100^{th} percentile. These tests were chosen randomly.

We decided to analyse all of the Drumcondra Maths Asssements for 2012/2013. The whole staff got involved.

.

Findings:

Timetabling for Resources:

Teachers seemed to agree with the timetable and agreed that it worked as the resources were more easily available. A few minor issues were highlighted at the meeting in May 2013. Teachers of infants, second, fourth and sixth were happy with the timetable. Teachers of fifth class felt that the measures strand should be later in the year. Teachers of first and third class felt that money should be moved to later in the year while there was a suggestion that time should be removed from the timetable and done throughout the year during mental maths and as morning activities. Digital and analogue clocks should be in class rooms from 3rd-6th. It was also suggested that algebra should be taught alongside the number strand.

The timetable was suggested to work as teaching 3 days of number and 3 days of another strand. Teachers need to plan the number strand with the other strand being taught for that month.

The drumcondra analysis findings proved that maths strands need to be linked at all times. Therefore the number strand that is being taught needs to be connected to the other strand that is being taught that month.

Number Fact Strategies:

It was found that the number fact strategies clearly helped children when memorizing number facts especially the low ability groupings. Teacher observed that children were more certain about answering sums and were able to explain there answers. For example- 7x8= 56 because I know 7x7 is 49, and if I add another group of 7 it will give me 7x8.

Kieran o Malley and Orla McSweeney spoke to the staff in May 2013 about number fact strategies and the order in which they should be taught. Aine Trant spoke to the staff about Maths Recovery and shared useful tips and games when teaching number.

Drumcondra Analysis:

The Measures Strand has been highlighted as an area of need. In first and second, time and money seem to be an area of need. From third to sixth, capacity questions mixed with decimals and fractions is an area of need.

Teachers need to highlight the link between fractions, decimals and

Strengths

- Computation skills are well developed.
- Good use concrete material in maths lessons.
- Teachers are planning together for maths lessons.
- Good support network for the teaching and learning of Maths in the school. (co-ordinator and numeracy group)
- School is well-resourced with maths equipment.

- Conscious effort is being made to teach the objectives using concrete material and less reliance on workbooks.
- Infant classes are following the ready, set, maths programme
- Two teachers have been trained in Maths Recovery and are implementing it at a whole class level.
- After School maths club was set up for third class.
- Each classroom has a copy of the 'Fraction, Decimal and Percentages' manuel and the 'Place Value' manuel.
- Numeracy books and problem-solving books were purchased to assist the teaching of mathematical skills.

Areas for Improvement:

- Teaching time informally throughout the year. (mental maths, referring to the time throughout the day)
- Ten minutes of mental maths to be completed every day. (number fans, dice, playing cards, mini-whiteboards)
- Update the maths policy with regard to language used when teaching the number operations of addition, subtraction, multiplication and division)