

School Self Evaluation Report for Numeracy September 2015– May 2017

1. Introduction

A school self-evaluation of teaching and learning was undertaken in this school during the spring term of 2014. Numeracy and how the teaching and learning in all other subjects support the acquisition of numeracy skills were reviewed with our first year cohort.

A numeracy team was created which represented a cross section of all subject areas. The team met five times, examined the state of numeracy amongst our first year students, gathered evidence, analysed it, reported to a staff meeting on strengths and challenges and drew up a school action plan.

This is a report on the findings of the evaluation.

2. School Context.

We are a coeducational post primary school in a rural area, under the trusteeship of CEIST. There are currently 488 students including 19 students with low incidence special education. 27 students diagnosed with high incidence special education and 4 students receiving learning support. 14 students of our first year cohort receive resource hours and eight more receive learning support in maths and English. There are 95 students in first year.

3. Findings

Learner Outcomes

The numeracy team examined the state of numeracy within our school by analysing information that was already in our possession. These included an analysis of:

- The Junior Cert and Leaving Cert maths results over the last five years using the PDST tool. This provided an indicator of existing trends and standards.
- The CAT Quantitative Reasoning Test completed by first years as part of their entrance assessment.
- Analysis of the first year November tests.

The findings were:

- The percentage of students taking higher level in the Junior Cert is above the national norm.
- The percentage of students achieving honours is above the national norm.
- The percentages of students achieving an A or B grade is above or significantly above the national norms at this level.
- At Leaving Cert level, those students achieving an honours grade is above the national norms.
- Those students who attain an A or B is above the national norms at this level.

- The percentage students, at Leaving Cert level, who attempt the higher level paper in Maths varies with national norms.
- The CAT Quantitative Reasoning Test showed that the mean standard score for this group is not significantly different from the national average. 16% were below average, 67% were average and 17% were above average.
- An analysis of the November first year test revealed that there was a difficulty with fractions and in some cases a general carelessness.

The group decided that more precise information would be required to get a more indebt knowledge of the state of numeracy among our first year cohort and which would allow us to focus on particular areas for improvement. Consequently, it was decided to administer a maths competency test to highlight areas of strength and weakness. Strengths included probability (average mark 78%) and basic calculations. (Average mark was 87%). Weaknesses included Area (average mark was 42%) Patterns (average mark was 40%) and difficulties with mathematical literacy. In a number of cases there was incorrect use of the scientific calculator.

Learning Experience

A questionnaire was given to all first years to view their attitude towards numeracy. The results were instantly collated by using an on line tool.

Sample findings:

- 54% of students agreed with the statement 'I enjoy maths'.
- Majority of students felt that their teachers had a positive attitude towards maths. (Agree 59.26%/Strongly agree 19.75%)
- A very high percentage of students are confident in improving their numeracy skills. (Agree 66.25%/Strongly agree 30%)
- A significant majority of students are interested in finding solutions to problems. (Agree 50% /strongly agree 30%)
- 34% of students did not feel that their teachers use the same methods to teach mathematical calculations in all subjects.
- Nearly 19% of students did not see the relevance of maths to everyday life.
- Almost 50% of students felt that they did not get an opportunity to work as part of a team to solve problems in class.

Teachers Practice

A questionnaire was given to the staff to gauge their experiences with numeracy and their teaching practice.

Sample findings:

- All teachers who responded felt that they understood the concept of numeracy
- All teachers encouraged their students to persist when answering questions.
- Almost 95% of respondents encouraged their students to work together to answer questions.

- Over 90% of staff members encouraged their students to explain where their answers came from. Over 90% of teachers felt that their students struggled with examples outside of the book.
- A significant majority (80%) of teachers believed that their students do not feel comfortable attempting difficult questions.

Staff Meeting

At a staff meeting in May 2015, the staff reflected on the results of the tests and surveys carried out by numeracy team and considered practices and methodologies that would embed numeracy across the curriculum and also whole school initiatives that would promote numeracy throughout the school. A number of decisions were agreed:

- The promotion of numeracy was the responsibility of all teachers and all subject departments.
- To organise a numeracy week.
- To create a numeracy rich environment.
- A whole school approach to the teaching of fractions.
- All teachers would acknowledge numeracy moments in their classes and that these would be reflected in the department plans.
- The maths department would work with other ‘carrier subjects’ (Science, Geography, Technical Graphics, and Business) in an incremental way to ensure that mathematical concepts are taught in a similar way.

Progress made on previously identified targets identified in the current SIP (School Improvement Plan)

N/A for year one as SIP not in place yet.

4. Summary of school self- evaluation findings

4.1 Our school has strength in the following areas.

- A majority of students enjoy Maths class (54%)
- Majority of students felt that their teachers had a positive attitude towards maths. (Agree 59.26%/Strongly agree 19.75%)
- A very high percentage of students are confident in improving their numeracy skills. (Agree 66.25%/Strongly agree 30%)
- A significant majority of students are interested in finding solutions to problems. (Agree 50% /strongly agree 30%)
- Teachers felt that they understood the concept of numeracy
- Teachers encourage their students to persist when answering questions
- Teachers are aware that problem solving is part of their subject and use a problem solving strategy.

4.2 The following areas are prioritised for improvement.

- Improve the % of students who see cross –curricular links with Maths

- Foster a positive attitude towards numeracy and increase the % of students who like maths and who see its relevance to their everyday lives.
- Teachers to focus on the development of numeracy as well as knowledge and key skills.
- Maintain or increase the uptake of higher level maths at both junior and senior level.
- Create a numeracy rich environment.
- A whole school approach to the teaching of fractions.

4.3 The following legislative and regulatory requirements need to be addressed.