

School Self-Evaluation Report Numeracy for Coláiste Mhuire Co-Ed, Thurles (2014-15)

1. Introduction

1.1 The Focus of the Evaluation

A school self-evaluation of teaching and learning in this school was undertaken during the school year 2014/15. Numeracy at junior cycle, especially in first year, was reviewed.

This is the report on the findings of the evaluation

2. School Context

Coláiste Mhuire Co-Ed is a co-educational post-primary school under the patronage of Tipperary Education and Training Board (ETB). The original school was founded in 1948 and it moved to its current site in 1989. Including Post-Leaving Certificate (PLC) students it has an enrolment of 355 students. It serves a large rural and urban catchment area. The school is a participant in the Delivering Equality of Opportunity in Schools (DEIS) action plan for educational inclusion and as such benefits from the Home-School-Community Liaison (HSCL) scheme and the School Completion Programme (SCP).

The school is characterised by an open enrolment policy and an ethos of respect, effort, honesty and co-operation. In its mission statement, Coláiste Mhuire Co-Ed aspires to develop a caring and inclusive learning community that optimises the potential of each person. In keeping with its commitment to meeting the needs of the whole student population, the school offers the Junior Certificate and Leaving Certificate programmes, the Junior Certificate School Programme (JCSP), the Transition Year (TY) programme, the Leaving Certificate Applied (LCA) programme and the Leaving Certificate Vocational Programme (LCVP).

The SSE team meet weekly as part of the timetable.

School Year 2013/14 and 14/15

Over the last two years the school has worked on numeracy as part of the Deis plan. The Numeracy Deis team has worked to create awareness of numeracy across the curriculum and in everyday life, and to assess students' attitudes towards numeracy. During the 2012/2013 school years we have introduced the "That's Maths" initiative. We agreed a common approach to working out percentages. We increased timetabling provision of first year maths by one period per week. We have also introduced a team teacher for the junior cert groups to allow for focussed work with target students. Teachers have received in-service on numeracy across the curriculum. Teachers have begun to include numeracy in subject planning and in displays in their classrooms.

This report was compiled by the SSE team but the whole staff were consulted to analyse the data in November 2014 and for feedback on the final SIP in May 2015.

2. The Findings

Learner Outcomes

We conducted an analysis of Sten Scores of the 1st year cohort of 2014/15. We also administered Cat3e tests. We also conducted an analysis of Junior Cert Maths results over the last 5 years. This analysis found that the school is committed to raising the level of achievement in maths by supporting students to achieve at higher level and by reducing the number of students taking foundation level. When state examination results are compared with CAT scores prior to entry into 1st year and Maths testing carried out during their time in the school, students are seen to have made progress in maths. Finally we conduct the PDST maths competency test each year to determine particular areas of focus for the incoming first year cohort.

Teachers' Practice

A teacher attitudinal survey regarding numeracy was carried out during the spring term of 2014/15. There is an awareness of numeracy across the curriculum in the school.

- 92.9% of teachers agreed that Maths occurs in their subject.
- 89.3% of teachers are comfortable with dealing with numeracy if it arises in their subject and 67.9% promote a positive attitude to maths. The following initiatives helped to create this awareness:
 - That's maths
 - School Maths week
 - Numeracy across the curriculum in-service
 - Numeracy posters/numeracy rich environment in classrooms and around the school

The number of displays in classrooms and on the corridors identifying numeracy in all subjects has increased.

67.9% of teachers feel that problem solving is part of every subject and 60.7% of teachers use problem solving as a methodology.

53.6% of teachers feel that students understand maths best when they work in pairs. 71.4% of teachers report that students work on their own.

Learner Experience

We carried out an attitudinal survey during September of 2014 and re-administered it in the spring term of 2014/15 with our first year target group. We re-administered it following a meeting with the Maths Department to examine if attitudes were as a result of primary school experience and were still positive following 6 months in our school. Results did not vary. In the cohort surveyed in the second survey

- 80.6% of students report that they like Maths.
- 63.9% felt that they would do Higher level for their Junior Certificate.
- 81% of students feel that their maths skills are used in other subjects.
- 94.4% feel they can improve their numeracy skills.
- 88.9% of students see the relevance of maths to their everyday life. 80.6% of students enjoy playing maths games/puzzles.
- 75% of students report that they get the opportunity to solve problems in most classes.
- 91.6% of students say that they are required to justify and explain their answers in all subjects.
- 58.3% of students felt that teachers do not use the same words to describe the same mathematical concepts.
- 94.4% of students felt that they were encouraged by teachers to develop their own problems solving strategies rather than solely relying on the teachers for the answer.

In a parental attitudinal survey which was carried out in the spring term of the academic year 2014/15

- 90.6% of parents felt that there are high expectations for their child to work hard.
- 84.4% of parents feel that their child likes Maths.
- 81.3% know their child's strengths and weakness in maths.
- 84.4% feel the maths they learn is at the right difficulty
- 75% feel they are informed by the school about how their child is performing in Maths.
- 21.9% feel that their child needs help with homework,
- 56.3% feel confident to help their child with maths homework.

Findings

Summary of school self-evaluation findings

Our school has strengths in the following areas:

Testing

- Sten and Cat results show that student performance in 6th class was only slightly less than national averages.

- Junior Cert Maths results show good spreads of results at higher and ordinary level. The low numbers of A grades at Ordinary level point to students being correctly categorised.
- When first year results are compared to Cat results and Maths testing of those students they are shown to be making progress.
- The maths competency test shows that students are generally strong in the areas of computation, decimals, sequence, and measure.

Attitudes

- Students have a positive attitude towards maths, feel they can improve their numeracy skills and see the relevance of maths in their everyday life.
- Students set academic targets, in consultation with parents and teachers, and record target and achieved grades in their school journals.
- There is an awareness of numeracy across the curriculum.
- Parents feel that there are high expectations of their child to work hard in maths.

Through our JCSP engagement we have engaged with maths initiatives including the use of Maths apps, use of Maths workbooks etc.

The teaching staff agreed to implement a whole school approach to promoting Numeracy. This approach has included the following strategies which were being practised on a continuous basis by all teachers where appropriate –

- promoting a number rich environment
- ensure that all subject departments follow approaches to teaching percentages by giving test scores back as a raw score and getting students to convert them to percentages
- value is placed on all calculations across all subject areas – students are encouraged to identify numeracy moments using the “That’s Maths” initiative.
- Inclusion of a numeracy column in the subject planning template

The Maths Department recognises their role as leading any initiative to promote Numeracy in the school through the following strategies –

- Maths Competitions
- Maths Week
- Assisting other Departments in delivering the whole school Numeracy initiatives.

The Learning Support Department works very closely with all other teachers to identify students at an early stage who have significant Numeracy problems. Some of this work would

have been completed through aforementioned information from the national schools. This forms part of the process of identifying students in need of additional Learning Support in Numeracy

The following areas are prioritised for improvement

No1: Continue to encourage and promote a positive attitude towards Numeracy in the school.

We hope to do this by:

- Prioritising maths initiatives under the JCSP programme
- Continue to develop an awareness of numeracy across the curriculum.
- Formalise the That's Maths initiative, ensure that students understand the mathematical concept by explaining the terms in Everyday and Mathematical English and link it with the merit system.
- Target parents with input on how to help their children with maths.
- Further enhance the number rich environment of the school

No2: Increase the numbers of students doing Maths at HL

We hope to do this by

- **Develop Common approaches**

Common approaches to be developed and rolled out in key areas over the coming years.

In the academic year 15/16

SALT

Percentages

Encourage the correct use of a common calculator.

- Provide support for teachers so that they feel more confident in using cooperative learning techniques. To introduce think/share/pair in the coming academic year.
- A Maths competency area. We will administer the Maths Competency test each year and decide what area needs to be targeted by the Maths department as a result of this.
- Teachers will continue to update and note numeracy in subject plans and lesson objectives.

COLÁISTE MUIRE CO-ED SCHOOL IMPROVEMENT PLAN

Summary of main strengths as identified in the first Numeracy SSER in June 2015

Our school has strengths in the following areas:

Testing

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- Junior Cert Maths results show good spreads of results at higher and ordinary level. The low numbers of A grades at Ordinary level point to students being correctly categorised.
- When first year results are compared to Cat results, Maths testing of those students shows progress.
- The maths competency test shows that students are generally strong in the areas of computation, decimals, sequence, and measure.

Attitudes

- Students have a positive attitude towards maths, feel they can improve their numeracy skills and see the relevance of maths in their everyday life.
- Students set academic targets, in consultation with parents and teachers, and record target and achieved grades in their school journals.
- There is an awareness of numeracy across the curriculum.
- Parents feel that there are high expectations of their child to work hard in maths.

Through our JCSP programme we have engaged with maths initiatives including the use of Maths apps, use of Maths workbooks etc.

The teaching staff agreed to implement a whole school approach to promoting Numeracy. Teachers are

	<ul style="list-style-type: none"> o promoting a number rich environment o ensuring that all subject departments follow approaches to teaching percentages o value is placed on all calculations across all subject areas – students are encouraged to identify numeracy moments using the “That’s Maths” initiative. o Inclusion of a numeracy column in the subject planning template <p>The Maths Department recognises their role as leading any initiative to promote Numeracy in the school through the following strategies –</p> <ul style="list-style-type: none"> o Maths Competitions o Maths Week o Assisting other Departments in delivering the whole school Numeracy initiatives. <p>The Learning Support Department works very closely with all other teachers to identify students at an early stage who have significant Numeracy problems. Some of this work would have been completed through aforementioned information from the national schools. This forms part of the process of identifying students in need of additional Learning Support in Numeracy</p>
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<p>Summary of main areas requiring improvement as identified in the first Numeracy SSER in June 2015</p>	<p>No1: Continue to encourage and promote a positive attitude towards Numeracy in the school.</p> <p>We hope to do this by:</p> <ul style="list-style-type: none"> • Prioritising maths initiatives under the JCSP programme • Continuing to develop an awareness of numeracy across the curriculum. • Formalising the That’s Maths initiative, to ensure that students understand the mathematical concept by explaining the terms in Everyday and Mathematical English. This can be linked with the merit system. • Targeting parents with input on how to help their children with maths. • Further enhancing the number rich environment of the school
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No2: Increase the numbers of students doing Maths at HL**We hope to do this by****Developing Common approaches**

Common approaches to be developed and rolled out in key areas over the coming years.

In the academic year 15/16

SALT

Percentages

Encouraging the correct use of a common calculator.

- Provide support for teachers so that they feel more confident in using cooperative learning techniques. To introduce think/share/pair in the coming academic year.
- A Maths competency area eg Use the school based competency test to monitor students' improvement in percentages. (Maths Dept will decide on this and how to do it)
- Teachers will continue to update and note numeracy in subject plans and lesson objectives.