



CASTLETROY COLLEGE

School Self Evaluation for Numeracy 2014-2015



School Self-Evaluation Report – Numeracy

Castletroy College

1. Introduction

1.1 School Context

The philosophy of Castletroy College is based on the education of the whole person. This co-educational College fosters the intellectual, spiritual, social, personal, artistic, physical and vocational development of all its students. The confidence and self-esteem of our students is promoted through a range of curricular and extra-curricular activities. Castletroy College's enrolment policy is set out in accordance with the provisions of the Education Act, 1998.

The College which is a partnership initiative involving County Limerick VEC and the Diocese of Limerick operates in accordance with the regulations laid down by the Department of Education & Skills. This enrolment policy is informed by the principles of inclusiveness, equality of access and participation for all children from the local community taking account of the resources and funding provided by the Department of Education & Skills.

1.2 Mission Statement

Our mission in Castletroy College is the holistic education of the individual, enabling students to become responsible, caring members of society as well as encouraging them to reach their full potential.

In our daily lives we value the principles of justice and mutual respect embracing all denominations and cultures. We endeavour to nurture and maintain a school community which involves the partnership of staff, students, parents, trustees and the local community.

In the pursuit of this ideal we provide a broad and balanced range of curricular and extra-curricular experiences for all students.

1.2 The Focus of the Evaluation- Numeracy

This SSE and SIP for Numeracy describes the response by Castletroy College to the challenges and opportunities posed by the National Strategy to Improve Literacy & Numeracy among children & young people 2011 – 2020. It was developed by all the members of the teaching staff in consultation with the Board of Management of the school. A sub group of interested teachers were identified to form a core numeracy team in May 2013. The team consisted of the principal, one deputy principal and 10 teachers from a range of curricular areas. A decision was made to focus on Literacy development for 2013-2014 and a literacy team was also established. During the first year of literacy development, the numeracy team worked in the background to make the school environment more numerate and to develop a whole school understanding of what it means to be numerate. Sign posts were erected, a numeracy wall was introduced, door numbers were labeled and other visual changes were made. A target of this first year was to achieve a school wide understanding of numeracy. A member of the school numeracy team address the whole staff on the area of numeracy and a numeracy information newsletter was also developed and distributed to all staff. All subject departments also identified numeracy moment in their own areas and started naming them in lessons. The numeracy team met and made plans for carrying out an SSE in the area of numeracy commencing in September 2014.

A school self-evaluation of teaching and learning in numeracy formally commenced in September 2014. The data gathered from September 2014 to May 2015 was both quantitative and qualitative in nature and was obtained in the following ways.

- Maths competency test – sample of 60 first year students.
- CAT 3 – Quantitative data was analyzed for all first year students.
- Student attitudinal survey- all first year students.
- Staff attitudinal survey- all teaching staff.

The SSE report focuses on students' and teachers' attitudes towards maths in general, towards their own competence in maths, perceptions of teaching and learning in the area of numeracy and problem solving.

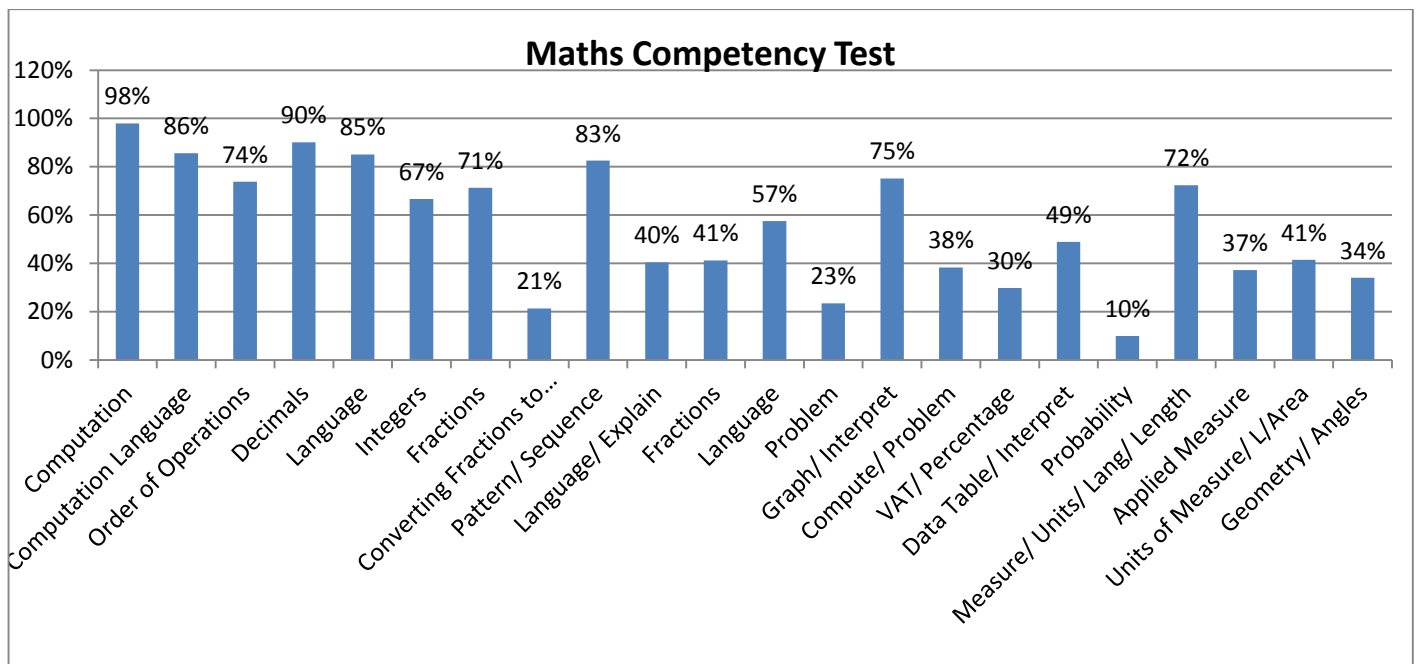
2. The Findings

2.1 CAT 3 Standardised Test Scores: Quantitative

	<74	74-81	82-88	86-96	97-103	104-111	112-118	119-126	>126
National	4%	7%	12%	17%	20%	17%	12%	7%	4%
Castletroy College	1%	3%	10%	16%	14%	22%	11%	12%	10%

- CAT 3 results would indicate that there are students **of all abilities** in our school. However, our students in general are performing above the national average. While the mean standard age score is significantly above the national average, the spread of scores is not significantly different than the national spread of scores. This is reflective of the inclusive enrolment policy of Castletroy College where by all students of all abilities living in the catchment area are accepted into the school.

2.2 Results from Maths Competency Test.



- Two first year classes completed a maths competency test and the results were analyzed. Competency test results would indicate that many of our students are strong in many areas of maths including computation, graphing, fractions, patterns, decimals etc but are weak in areas such as problem solving, probability and VAT and percentages. The results would also indicate that many of our first year students may not be that challenged by the first year project math common introductory course in the areas of strength identified above.

2.3 Student attitudinal survey results:

All first year students were surveyed with a 91% response rate. They were questioned on their attitudes towards maths as well as various aspects of teaching and learning. The following are the main findings.

Student's Attitudes towards Maths: (See Appendix A for full summary of student survey findings).

- 54% of our students like Maths- 46% don't.
- 79% think that Maths is important outside of school
- 51% like doing Maths they haven't tried before- 49% don't.
- 56% are not sure if their teachers think that they are good at Math.
- 56% do not do Maths in their own time outside of school

Student survey: Teaching/Learning

Areas of strength

- 74% of students get the opportunity to ask questions in class a lot or always.
- 85% of students get the opportunity to work out solutions with other students at least sometimes in class.
- 84% of students are encouraged to try different approaches when solving problems in all of their subjects at least sometimes in class.
- 92% of students are encouraged by all teachers to reflect on where they went wrong and learn from their mistakes.
- 58% of students are encouraged 'a lot' or 'always' to try more than one method to a problem before seeking help

Areas for improvement

- 53% of students do not agree that their teachers have a positive attitude towards numeracy.
- 28% of students reported that their teachers encourage them to look for links between the numeracy in their subject and examples in everyday life.
- 58% of students are not given the opportunity to present their work using tables and graphs.
- 48% of students do not feel encouraged to use ICT to support and deepen their learning in all subjects.
- 53% of students indicated that teachers only sometimes or never used the same approach for working out their assessment result.

2.4 Teacher attitudinal Survey:

The survey was emailed to all teachers using Google forms. There was a 70% response rate. The results were discussed at departmental level in all subject departments.

Areas of strength

- 90% of teachers believe that maths skills help students do well in all subjects.
- 75% of teachers rate their competency in maths as either good or excellent.
- 89% of teachers feel comfortable dealing with numeracy as it arises in their subject(s).
- 85% believe that problem solving is part of their subject.
- 91% teachers feel that they can improve student's numeracy skills.
- The vast majority of teachers (94%) ask students to justify and explain their rationale when answering a question at least sometimes.
- 80% of teachers encourage students to try different approaches when problem solving in their subject.
- 98% of teachers encourage students to reflect on where they went wrong and learn from their mistakes.
- 100% of teachers encourage students to read over and check their work.

Areas of weakness

- 62% of teachers believe that there is not a consistent approach to maths across the school.
- 82% of teachers sometimes to never ask students to do an estimate first when using a calculator.
- 29% of teachers seldom or never give assessment grades in mark form and allow students to calculate their own %.
- 81% of teachers do not integrate the maths eyes theme of the month into their subject teaching.
- 68% of teachers do not encourage students to enter the whole school problem solving initiatives.
- 28% of teachers do not encourage students to look for links between numeracy in their subject and examples in everyday life.
- 67% of teachers indicated that they had very little to no knowledge of the 1st year math curriculum.
- 73% of teachers were not happy that when dealing with maths, their approach to maths was consistent to that of the first year maths teachers.

3.0 Summary of School Self-Evaluation Findings

3.1 Our school has strengths in the following areas:

Learner Outcomes

- CAT 3 results would indicate that while there are students of all abilities in our school, our student in general perform above the national average. The mean standard age score is significantly above the national average but the spread of scores is not significantly different than the national spread of scores
- 1st year competency test results would indicate that many of our students have strengths in a number of areas of maths including computation, graphing and fractions. Nearly 80% of our students believe that maths is important not just in the classroom but outside of school as well.

Learning Experiences

- Students indicated that many positive approaches are regularly undertaken in class to promote and encourage engagement and learning. These include getting the opportunity to ask questions in class, getting the opportunity to work out solutions with other students, encouragement to try different approaches when solving problems in all of their subjects, encouragement by all teachers to reflect on where they went wrong and learn from their mistakes and encouragement to try more than one method to a problem before seeking help.
- Students have a lovely stimulating school environment where numeracy has a prominent place.

3.2 The Following Areas are Prioritized for Improvement

Learner Outcomes:

- From our research we have identified that half of our first year students do not like maths. This is an area of weakness in terms of numeracy development. Our results would also indicate that our students are not very confident in their own maths ability with only half of our students indicating that they like doing maths that they haven't seen before. A similar number do not do maths in their own time outside of school.
- An ability of our students to problem solve is also an area of weakness to be address in our SIP for 2015-2016.

Learning experience.

- Over half our of students indicated that teachers in general do not have a positive attitude towards numeracy. 28% of teachers indicated that they do not encourage students to look for links between numeracy in their subject and examples in everyday life while over three quarters of teachers indicated that they have not integrated some whole school numeracy initiatives into their classrooms.

Teaching Practices

- The majority of teachers surveyed indicated that they had very little to no knowledge of the 1st year math curriculum and were not happy that, when dealing with maths, their approach was consistent to that of the first year maths teachers.
- 53% of students also indicated that teachers only sometimes or never used the same approach for working out their assessment result. This was the one common approach in maths that was developed and introduced across the whole school.