

An Roinn Oideachais agus Scileanna
Department of Education and Skills

Subject Inspection of Mathematics
REPORT

Hazelwood College,
Dromcollogher, Co. Limerick
Roll number: 71850B

Date of inspection: 3 and 4 March 2016



AN ROINN | DEPARTMENT OF
OIDEACHAIS | EDUCATION
AGUS SCILEANNA | AND SKILLS

**REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN MATHEMATICS**

INFORMATION ON THE INSPECTION

Dates of inspection	3 and 4 March
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teachers• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during ten class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- The overall quality of teaching and learning was very good or good, with exemplary practice observed in a large number of lessons during the course of the evaluation.
- A collaborative, problem-solving approach to the teaching of Mathematics characterises the learning experience promoted by the mathematics department.
- The use, and integration of, information and communications technology (ICT) into lessons to support and enhance student learning is excellent.
- Strategies to enhance students' literacy and numeracy skills were seamlessly integrated into lessons.
- There is very good provision for students with additional needs in Mathematics.
- Students were observed to be very resilient when tackling new challenges throughout the observation.

MAIN RECOMMENDATIONS

- It is recommended that teaching and learning is included as a standing item on the agenda of department meetings in order to formally share good practice.
 - It is recommended that members of the department deliver continuing professional development (CPD) to each other to disseminate the wealth of experience and variety of effective strategies that were observed to be in use across the department.
 - Medium to long term priorities for the department in relation to teaching and learning should now be identified as part of the department plan.
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INTRODUCTION

Hazelwood College is a co-educational community college operating under the trusteeship of Limerick and Clare Education and Training Board. The school, located in Dromcollogher, serves a wide rural catchment area. It has a current enrolment of 541 students. It offers the Junior Certificate, an optional Transition Year (TY) programme, established Leaving Certificate, the Leaving Certificate Applied (LCA) and Leaving Certificate Vocational Programme (LCVP).

TEACHING AND LEARNING

- The quality of teaching and learning was very good or good, with exemplary practice observed in a large number of lessons during the course of the evaluation. In all lessons, students were observed to have a very positive experience of Mathematics.
- A wide variety of very effective strategies and approaches was observed. Examples include the use of; video clips to engage interest; real world applications to extend and consolidate learning; puzzles to enhance collaboration and problem solving skills; concrete materials to support understanding and beneficial ‘placemat’ tasks.
- Learning intentions were shared with students in almost all lessons. Where their use was most effective, these intentions had been used in the planning stages to structure and pace the lesson. This effect was enhanced when students were provided with a planned opportunity to reflect on their progress in relation to the learning intentions nearing the end of a lesson.
- Teacher-led explanations, where necessary, combined the informal and formal language of Mathematics, in some cases using a story telling approach, allowing students of all abilities to increase their understanding.
- Where best practice was observed in relation to collaborative learning methodologies, the use of resources and associated tasks was accompanied by clear, consistent instructions. This approach allowed for optimal balance between teacher and student input and a high rate of new learning. In the small minority of observed practice where this did not occur, the pace of learning was not as high.
- Skilled questioning was a feature of many lessons. In all lessons students were empowered to ably contribute. It was evident, through class discussion and questioning, that students were clearly used to supporting each other in developing understanding.
- A collaborative, problem-solving approach to the teaching of Mathematics characterises the learning experience promoted by the department. It was evident, through the type of activities planned, questions asked and opportunities provided, that teachers are actively inculcating a growth mind-set in their students. This type of approach supports the development of resilience as a quality in students and, indeed, students were observed to be very resilient when tackling new challenges.
- This collaborative, problem-solving approach was seen to allow teachers time to circulate the room and facilitate discussion amongst students. As a result, in almost all lessons, teachers were keenly assessing individual student’s needs and responding to them appropriately.
- The integration of ICT into lessons to support and enhance student learning is excellent. In a number of lessons, students’ attention was drawn to resources that could be utilised

when completing homework. When done in a structured way, as observed, it not only encourages but shows students how to become more capable, independent learners.

- Team teaching of the highest standard was observed. Teaching styles complemented and supported each other, leading to high levels of engagement and understanding on the part of the students.
- Effective strategies to enhance students' literacy and numeracy skills were seamlessly integrated into lessons. In a large number of lessons, the reason for using a certain approach was explained to the students in advance. In this way, students also understood the rationale for different tasks and how these varied approaches enhanced their critical thinking skills.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Students are in mixed ability classes in first year and in TY, which is good practice. Students are streamed in all other years, based on assessment results. Consultation between teachers, parents and the student also plays a role in the level taken by students.
- The timetabled provision is very good, with students having a double class in third, fifth and sixth year.
- There is very good provision for students with additional needs in Mathematics and the department have a clear understanding of how to provide for these students in the main mathematics classroom. It is very positive that subject specialists provide support in the majority of cases.
- Management is very supportive of ongoing CPD for staff. It is recommended that members of the department, with the support of management, further deliver CPD to each other where possible, to disseminate the wealth of experience and variety of effective strategies that were observed to be in use across the department.

PLANNING AND PREPARATION

- The role of the subject co-ordinator rotates among members of the subject department, which is good practice. An extensive range of equipment is available to the department, with some electronic resources kept on shared drives. Examination results are analysed each year and trends identified.
- The subject plan is holistic and consistent with all school policies. In particular, the assessment policy, which refers to how students should be provided with opportunity to “engage in error analysis” and “receive constructive feedback on their work”, was clearly seen to be adhered to by the department.
- The scheme of work has the syllabus strands incorporated in to it. It should also include methodologies that are specific to topics and levels. The department should discuss, and be clear about, how they can teach the same topic differently depending on the desired outcomes in different year groups.
- It is positive to note that the TY scheme includes topics and approaches that are outside of the Leaving Certificate syllabus.
- Individual planning was of a very high standard in all cases.

- It is recommended that the subject department include teaching and learning as a standing item on the agenda of department meetings in order to formally share good practice.
 - Medium to long term priorities for the department in relation to teaching and learning should now be identified as part of the department plan. This will ensure that the unity of vision, already present, continues to be developed.
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The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teachers at the conclusion of the evaluation. The board of management was given an opportunity to comment in writing on the findings and recommendations of the report; a response was not received from the board.