An Roinn Oideachais agus Scileanna

Department of Education and Skills

Subject Inspection of Metalwork and Engineering REPORT

Scoil na Tríonóide Naofa Doon, County Limerick Roll number: 68121S

Date of inspection: 28 September 2015



REPORT

ON

THE QUALITY OF LEARNING AND TEACHING IN METALWORK AND ENGINEERING

INFORMATION ON THE INSPECTION

Date of inspection	28 th September 2015
Inspection activities undertaken	Observation of teaching and learning during five
 Review of relevant documents 	class periods
 Discussion with principal and teacher 	• Examination of students' work
Interaction with students	Feedback to principal and teacher

MAIN FINDINGS

- Overall the quality of teaching and learning was fair with a few instances of good practice observed.
- Scope for improvement to promote the sequential and incremental development of student learning was identified in the planning and structuring of all lessons.
- Overall, assessment practices were unsatisfactory.
- Metalwork and Engineering are well supported by senior management.
- During the course of the evaluation, management and the subject department expressed a strong commitment to development and improvement.

MAIN RECOMMENDATIONS

- A structured approach to lesson planning and design should be adopted with significant attention paid to the incorporation of teacher and student activities that contribute to the achievement of desired learning outcomes in lessons.
- A rigorous and systematic approach to assessment that promotes the use of Assessment for Learning (AfL) practices in theory and practical learning settings should be implemented
- An appropriate Transition Year (TY) plan should be developed.

INTRODUCTION

Scoil na Tríonóide Naofa is a co-educational secondary school formed from the recent amalgamation of three schools. The school has a current enrolment of 606 students and offers a wide range of curricular programmes including: Junior Certificate, an optional TY, the Leaving Certificate Vocational Programme (LCVP), and the established Leaving Certificate.

TEACHING AND LEARNING

- In the lessons observed during the evaluation, the overall quality of teaching and learning was fair with a few instances of good practice identified in most lessons.
- In the lessons observed, lesson structure was not always conducive to the logical and sequential development of students' knowledge or skills. The subject department should now focus on planning lessons in a more structured and systematic manner. This planning should initially be divided into five key areas focusing on lesson design: introduction, development, modelling, reinforcement and the assessment and summation of subject matter. Carefully chosen teacher and student activities that support student learning should be incorporated into these key aspects of lessons and planned accordingly.
- Good practice was observed during some of the practical demonstrations. Students
 contributed and were engaged in most of these activities. To further develop teacher
 demonstration as a methodology, greater emphasis should be placed on creating an
 appropriate demonstration environment with excellent tool and equipment layout.
 Students could also be encouraged to take part in demonstrations and peer instruction
 where appropriate.
- Students were generally well behaved. In a few instances, students disregarded the teacher's instructions to cease practical work or to tidy away their tools. This behaviour, while never disrespectful, should be addressed. First-year students were eager and motivated to learn and a positive rapport has developed between teacher and students.
- Assessment procedures were poor. The quality and quantity of formative feedback, particularly on students' written work, was insufficient in order to provide students with adequate information in relation to any deficits in their learning and so as to support them to identify areas for development. A systematic approach to assessment should now be adopted.
- Questioning occurred throughout lessons and was generally global in nature. Students
 participated in chorus answering throughout the lessons observed and this made it
 difficult to ascertain individual students' knowledge and understanding. To determine the
 level of learning of the group and of individuals, it is necessary to choose questions and
 students carefully. Probing, pausing and re-direction should also be employed to gain
 greater insight into the level of learning achieved but also to promote a higher level of
 thinking and analysis among students.
- There was scope for development in students' learning in the three lesson observed. This should be addressed through greater planning of teacher and student activities, through a more structured approach to lesson design and through improved assessment practices.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

• Metalwork and Engineering are very well supported on the curriculum by senior management. The subjects are available to all students in all programmes offered in Scoil

Tríonóide Naofa. Opportunities are available to students who wish to sample the subject in first year and this provides them with an excellent opportunity to choose their optional subjects based upon their abilities, aptitudes and experiences of the subjects.

- Engineering is provided on a modular basis for students enrolled in the school's TY programme. This module is provided in parallel with Music and students alternate between the two subjects after Christmas.
- The subjects receive appropriate time allocations in all programmes and lessons are scheduled in single and double periods as is common practice.
- Facilities in this new school are excellent. It is important however that systems be developed at this early stage to manage the storage and use of tools, equipment and project work in the Engineering classroom.
- During the course of the evaluation management and the subject department expressed a strong commitment to development and improvement. This is most welcome.

PLANNING AND PREPARATION

- A subject plan has been developed by the subject department. This plan outlines the curricular elements of the syllabus and the planned delivery of this material over time. The subject planning folder also contains a number of very good sample curricular plans that could be utilised to develop the current subject plan further.
- Technology subjects department meetings are held regularly and records of the proceedings are maintained. These records indicate that meetings are primarily focused on the management and organisation of the technology rooms and equipment. To strengthen the collaborative capacity of the technology subjects' department, items directly relating to developing and improving teaching, learning and assessment methods should be placed upon each planned agenda. This would further promote collegiality and the development of greater levels of professional discourse and dialogue among the technology subject teachers.
- The current TY programme is based loosely on the subject department's first-year scheme of work. An appropriate TY plan should be developed to replace this plan without delay. Greater emphasis should be placed on the teaching and learning of Engineering in a significantly different and interesting manner as espoused in the overarching goals of the TY programme.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and subject teacher at the conclusion of the evaluation The board of management of the school was given an opportunity to comment in writing on the findings and recommendations of the report, and the response of the board will be found in the appendix of this report.

Appendix

SCHOOL RESPONSE TO THE REPORT

Submitted by the Board of Management

Area 1 Observations on the content of the inspection report

The Board acknowledges the content of the report and welcomes its finding and recommendations. The Board will endeavour to support management and the subject departments concerned in implementing the recommendations.

Area 2 Follow-up actions planned or undertaken since the completion of the inspection activity to implement the findings and recommendations of the inspection.

The Principal and Subject Department have began the process of implementing the first two recommendations.