

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Technical Graphics
REPORT**

**Coláiste Mhuire
Johnstown, County Kilkenny
Roll number: 70600T**

Date of inspection: 29 November 2013



REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS

INFORMATION ON THE INSPECTION

Date of inspection	29 November 2013
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 six class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- In the lessons observed, teaching was well planned, appropriately structured, effective and, in some instances, innovative; this resulted in consistently high levels of student learning.
- High quality presentation techniques were employed by all teachers to very good effect.
- While the uptake of Technical Graphic (TG) is good among both boys and girls, Design and Communication Graphics (DCG) has not been a viable optional subject for a number of years.
- Graphics is very well resourced with an appropriate allocation of time and effective deployment of staff.
- Subject planning is very well developed and has resulted in the formation of a comprehensive subject plan and an abundance of collaboratively developed innovative electronic resources.
- Effective self-evaluative practices are evolving through the subject department's planning procedures.

MAIN RECOMMENDATIONS

- Teachers should focus on increasing the levels of student accountability during questioning through greater use of strategies such as wait-time, re-direction and no-hands.
 - To promote student independent and autonomous learning, the subject department should introduce a formatively assessed portfolio for all class groups.
 - In the context of both the junior cycle reform and the current lack of senior cycle DCG in the school, the subject department should plan for the consolidation of graphics subjects on the school's curriculum.
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INTRODUCTION

Coláiste Mhuire is a vocational school under the auspices of Kilkenny and Carlow Education and Training Board (ETB). The school has a current enrolment of 460 students. The school offers a wide range of programmes including the Junior Certificate School Programme (JCSP), the Leaving Certificate Applied (LCA) programme and the Leaving Certificate Vocational Programme (LCVP). Students also have the option of participating in the Transition Year (TY) programme.

TEACHING AND LEARNING

- In the lessons observed, teaching was well planned, appropriately structured, effective and, in some instances, innovative; this resulted in consistently high levels of student learning.
- All lessons observed had clearly identifiable learning intentions and these desired outcomes were achieved in all instances.
- The content and pace of the lessons observed was appropriate and lessons developed students' prior learning in a structured manner. Transitions were well managed and students of diverse abilities were catered for in a differentiated manner.
- High quality presentation techniques were employed by all teachers. These collaboratively developed resources helped to structure students' learning and display drawing techniques in an innovative and very effective manner. The future incorporation of the classroom visualiser will help teachers to demonstrate good practice and further support students' learning.
- In most lessons, students were given sufficient opportunities to test their knowledge, understanding and skill through focused independent learning activities that promoted the development of their problem-solving skills. This good practice should be extended to all lessons where appropriate. This could be achieved through the incorporation of sketching areas on teacher developed work sheets to encourage student led problem solving and through the utilisation of collaborative learning techniques such as pair work.
- Teachers gave very clear instructions and students responded to these instructions by diligently completing exercises and tasks with care and attention to detail.
- The questioning strategies employed by teachers were primarily recall in nature. This form of questioning when used for focused revision can be effective. To increase the level of student accountability in lessons, teachers should look at expanding the methods used to increase all students' engagement particularly during questioning activities. Possible strategies could include: directed questions, a 'no hands' approach, the use of 'show me' boards and the redirection of questions by students to their peers.
- The levels of teacher circulation and oral formative feedback observed during the evaluation were high. All students received good levels of individualised feedback and were given very clear instructions on how to improve. This was particularly evident in the team teaching lesson observed.
- Effective station teaching and increased individual student support were the main modes of delivery utilised in the team-teaching lesson. This is commended. To further develop this very useful strategy, the subject department is encouraged to investigate the

suitability of various models of team teaching. In doing this, the benefits of this significant resource can be further maximised for the students' benefit.

- Informal peer-teaching was encouraged and students worked well together with mutual benefits for both the teacher and learner. The development of an environment that is both conducive to and supportive of peer-teaching is commended.
- Students folders are well monitored with good examples of formative feedback evident in many of the folders inspected. To further promote independent autonomous learning, the subject department should introduce a yearly portfolio assessment as a means of embedding assessment for learning practices.
- Students are challenged to achieve high levels of proficiency and to attempt the highest level appropriate to their abilities in certificate examinations. This is good practice and has contributed to the very good outcomes at Junior Certificate over recent years.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- At junior cycle, TG is a popular choice and there are two class groups in first year and one class group in both second and third year studying TG. All TY students take part in two complementary CAD based modules. These modules are delivered in a cyclic manner in ten-week blocks. While DCG is always offered to prospective fifth-year students, recently, the school has not been in a position to form a viable class group.
- The subject department has recently focused on further promoting DCG and enhancing the TY curriculum to provide all students with a very good opportunity to study some elements of the DCG curriculum. These initiatives are most welcome.
- In light of the on-going junior cycle reform and the current lack of senior cycle DCG in the school, the subject department should progress plans to prepare for the consolidation of graphics subjects on the school's curriculum. This task should focus initially on provision at junior cycle level.
- Graphics subjects have access to two specialist rooms. Both rooms are very well equipped and have integrated information and communication and technology (ICT) resources available to teachers and students. In addition to this, a variety of useful teaching aids and resources are available including a classroom visualiser, data projectors and network access to collaboratively developed electronic resources.
- Three of the five teachers recognised to teach TG and DCG are currently deployed to teach graphics subjects. This provides management with a good level of flexibility in relation to deployment across the range of technology based subjects. In a few instances, management schedules team teaching. This is primarily targeted at class groups in need of additional educational supports. This practice is commended.

PLANNING AND PREPARATION

- Subject department planning occurs regularly in Coláiste Mhuire and has resulted in the development of a comprehensive TG subject plan. This has been facilitated by the subject co-ordinator, a position that is rotated annually, and through the scheduling of planning meetings as required.

- Curricular plans have been developed by the subject department. These plans incorporate a substantial quantity of very good quality resources which have been developed to present drawing solutions sequentially using animation. The development and sharing of such resources is commended.
- The subject plan also details the subject department's agreed approaches to the development of literacy and numeracy. Appropriate subject-specific resources have been identified and are displayed prominently in the classrooms. The integrated approach to numeracy development, in particular, was evident in most of the lessons observed.
- Positive self-evaluative practices are being developed as part of the subject department's planning procedures. Examples include lesson observations and reflective interviews with the schools numeracy link teacher. These reflective practices are commended and should be extended where possible.

The draft findings and recommendations arising out of this evaluation were discussed with the principal and the 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.