

An Roinn Oideachais agus Scileanna

Department of Education and Skills

**Subject Inspection of Technical Graphics and Design
and Communication Graphics
REPORT**

**Mohill Community College
Mohill, Co. Leitrim
Roll number: 76089V**

Date of inspection: 22 November 2011



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

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS AND
DESIGN AND COMMUNICATION GRAPHICS

INFORMATION ON THE INSPECTION

Date of inspection	22 November 2011
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 three class periods• Examination of students' work• Feedback to principal and teachers

MAIN FINDINGS

- In the lessons observed, teaching and learning was good.
- Preparation by the teachers for individual lessons was of a high quality.
- There were variations found in the amount of homework being allocated and in the monitoring of students' portfolio work.
- Students are well supported at times of subject choice.
- Subject planning needs development.

MAIN RECOMMENDATIONS

- Homework should be given on a more regular basis to all year groups. This work could take the form of full drawing problems, worksheets, sketching exercises and the completion of exercises started during class.
 - The subject department should increase the use of assessment for learning (AfL) principles and practices to ensure that written developmental feedback is provided to students on a regular basis.
 - The schemes of work should be further developed so as to identify student learning outcomes for each topic as well as the most appropriate teaching resources, teaching methodologies and assessment strategies.
 - Long-term aims should be identified for the further development of the subjects in the school. Once identified, strategies should be put in place to achieve these goals.
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INTRODUCTION

Mohill Community College caters for 351 students: 163 boys and 188 girls. Technical Graphics (TG) is offered as an optional subject in the Junior Certificate programme and Design and Communication Graphics (DCG) is offered as an optional subject in both the Leaving Certificate and the Leaving Certificate Vocational Programme (LCVP). The optional Transition Year (TY) does not contain a graphics module.

TEACHING AND LEARNING

- The lessons observed had clear aims and learning outcomes and these were communicated to students at the outset.
- Teachers' individual planning for lessons was good. A number of teaching aids and resources were used during lessons and this enhanced both teaching and learning. Examples of these resources included pre-prepared solutions, 3-D models and an ICT presentation.
- While effective questioning techniques were used in lessons to ascertain students' levels of understanding, there is opportunity for greater use of higher-order questioning.
- Freehand and ruled whiteboard work by teachers was of a high standard. Drawings were usually constructed incrementally during lessons and care was taken to ensure that students followed the different steps involved. This formed a good support for students.
- Teachers used subject-specific terminology continuously throughout the lessons. As a support for the development of literacy levels in the school, all such terminology should be displayed on the whiteboard or on key-word posters.
- Information and communication technology (ICT) was well integrated into a lesson observed on dynamic mechanisms. The subject teachers are encouraged to share their ICT resources and expertise.
- The development of students' freehand sketching skills is an important element of the DCG syllabus. In order to build confidence in this area, more opportunities should be taken to promote the development of freehand sketching and rendering techniques among students.
- From the examination of students' journals and from discussion with teachers and pupils it was evident that homework is not allocated regularly. It is recommended that homework in the form of full drawing problems, worksheets, sketching exercises or the completion of work started during class be assigned to all year groups on a regular basis.
- A sample of students' TG and DCG portfolio work was examined during the evaluation. In most instances, appropriate levels of subject material were covered and the quality of students' drawings was good.
- Feedback on students' work is generally given orally although there was evidence of work being graded for some year groups. In line with AfL principles, teachers should ensure that more feedback is provided to students in the form of written developmental comments on their drawing sheets. This would give recognition to students who are achieving and provide guidance to those who need direction.

- Teacher-student interactions were purposeful and mutually respectful. Individual support and direction was provided by teachers as students completed their assigned tasks.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- First-year students study each optional subject for an eight or nine week module as part of the year-long sampling programme. While the facilitating of subject sampling is commended, a shorter sampling period would be preferable.
- Students moving to senior cycle choose their optional subjects from a list of available subjects. As is good practice, option bands are then designed based on students' preferences.
- The classes for sixth-year DCG students are provided outside the timetable. All such classes will be incorporated into the timetable for the next academic year. This will be a positive development.
- One of the teachers has availed of the subject-specific training provided by the Technology Subjects Support Service (t4). He has also attended additional training on the use of the *SolidWorks* software. This in-career professional development is commended.
- The optional TY does not contain a DCG module. The introduction of such a module should be considered to provide continuity for students and also offer an opportunity to sample the subject to those who did not study TG for the Junior Certificate.
- The room available for the teaching and learning of the subject is bright and spacious. To improve this learning environment and raise the profile of the subjects amongst the general school population, it is suggested that the walls of the classroom and the corridor outside the classroom be used to display subject-specific materials.

PLANNING AND PREPARATION

- Subject-department planning meetings are facilitated by school management once per term. Minutes of these formal meetings should be retained within the planning folder and should be copied to management.
- A subject co-ordinator should be appointed with this role being rotated amongst the subject teachers. The duties of a co-ordinator would include the ordering of resources, organisation of subject meetings, ensuring that plans and policies are devised and updated and liaising with senior management.
- The schemes of work within the planning folders are content focused and need development. It is recommended that each topic be examined to determine the intended student learning outcomes from that unit of study. Details should also be given on the resources available to assist in the delivery of the topic. Examples could include worksheets, 3-D models, electronic presentations, *SolidWorks* files and useful web addresses.
- Reference should be made, within the schemes, to the teaching methodologies and assessment procedures found to be most effective when teaching each topic.
- Currently there are no long-term goals identified in the planning documentation for the further development of the subjects in the school. It is recommended that the subject department identify such goals and develop strategic action plans to achieve them.

Priorities should include: developing and sharing ICT resources to aid teaching and learning, increasing the uptake of the subjects by female students and creating a more stimulating learning environment for the students.

- Students' assessment outcomes in the certificate examinations are analysed by senior management and compared to the national norms. This provides a valuable insight into the standing of the subjects. The results of this analysis should be retained in the planning folders.

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.