**An Roinn Oideachais agus Scileanna**

**Department of Education and Skills**

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

**Crana College,
Buncrana, Co. Donegal
Roll number: 71140Q**

**Date of inspection: 6 May 2011**

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

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## INFORMATION ON THE INSPECTION

| Date of inspection | 6 May 2011 |
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| **Inspection activities undertaken**<br>• Review of relevant documents<br>• Discussion with principal and teachers<br>• Interaction with students | • Observation of teaching and learning during six class periods<br>• Examination of students' work<br>• Feedback to principal and teachers |

## MAIN FINDINGS

- Lessons were well structured and appropriately paced. This was facilitated by good preparation by the teachers.

- In the lessons observed, teaching and learning were good.

- There were variations found, across the year groups, in the amount of homework being allocated and in the monitoring of students' portfolio work.

- The subject department has good whole school support through the provision of time, resources and equipment.

- Subject planning folders are well organised and contain detailed schemes of work for each year group.

## MAIN RECOMMENDATIONS

- Homework, in the form of full drawing problems, worksheets and sketching exercises, should be given on a more regular basis to all year groups.

- Portfolio work should be monitored more regularly with written developmental feedback provided to students on their drawing sheets.

- Long-term goals 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**

Crana College participates in the Delivering Equality of Opportunity in Schools (DEIS) action plan. It currently caters for 548 students: 270 boys and 278 girls. Technical Graphics (TG) is offered as an optional subject in the Junior Certificate (JC) programme and Design and Communication Graphics (DCG) is offered as an optional subject in both the Leaving Certificate (LC) and the Leaving Certificate Vocational Programme (LCVP). Transition Year (TY) is not offered to students attending the school. The board of management of the school was given an opportunity to comment on the findings and recommendations of the report; the board chose to accept the report without response.

**TEACHING AND LEARNING**

- The lessons observed had clear aims and learning outcomes and these were clearly communicated to students at the outset.

- All lessons were well structured and consistent with planned programmes of work. Care was taken to revise previous learning through questioning and this enabled students to consolidate their learning prior to being introduced to new material.

- Good routines at the start and end of lessons ensured that students were quick to get organised for their lessons and to tidy away at the end.

- Teachers used subject-specific terminology continuously throughout the lessons. As a support for the development of literacy levels in the school such terminology should be displayed in the classroom and recorded by students.

- Information and communications technology (ICT) was well integrated into lessons.

- The whiteboard was used effectively in the TG lessons observed. Drawings were constructed incrementally and care was taken to ensure that students followed the steps involved. Student learning was further supported during these lessons by the use of a visualiser.

- In one lesson observed on the development of surfaces, the use of everyday cardboard packaging items greatly enhanced students' understanding of the subject matter.

- There was some evidence of freehand sketching and rendering techniques being developed. More opportunities should be taken to promote the development of these skills among students.

- The frequency of homework being assigned to students varies with each year group. It is recommended that homework, in the form of full drawing problems, worksheets and sketching exercises be assigned to all year groups on a regular basis.

- There was considerable variation between the amounts of work contained in the portfolios examined. A significant number of incorrect and incomplete drawings were found in some portfolios. The subject department needs to establish a regular and consistent approach to the monitoring of portfolios.

- Teacher movement around the classroom ensured that students were on task and engaged in lesson activities. Individual support and direction was provided by teachers as students completed their assigned tasks.

- In line with assessment for learning (AfL) principles, teachers should ensure that more feedback is provided to students in the form of written developmental comments on their drawing sheets.

- The school has participated in the Formula One in Schools Technology Challenge and U-design-it competitions. Involvement in these graphics-based co-curricular activities is commended.

- Teacher-student interactions were purposeful and mutually respectful. This was conducive to a good classroom atmosphere and sense of discipline in the lessons observed.

## SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- First-year students sample all seven optional subjects during the first six weeks of the school year before being asked to make their subject choices. This is good practice as it helps students to make their choices based on their experience and aptitude for the subjects.

- Students moving to senior cycle choose their optional subjects from a list of available subjects. Option bands are then designed based on students' preferences. This is commendable as it prioritises the needs of the students.

- Time allocation to the subjects is sufficient for the completion of the respective syllabuses. Lessons are well distributed across the week.

- Teachers have availed of subject-specific training provided by the Technology Subjects Support Service (t4). One of the teachers has also attended additional training on the use of the *SolidWorks* software. Recent whole-school professional development events include workshops on the value of homework and on AfL. This in-career development of the teaching team is commended.

- Currently there is no rotation of teachers between junior and senior cycle. In order to maintain capacity within the subject department and allow for the sharing of best practice, all teachers should be given the opportunity to teach both TG and DCG.

- There are two rooms available for the teaching and learning of the subject. One of these is equipped with twenty-four computer workstations whilst the other is of a more traditional layout with sloped desks. Both rooms have some good displays of student work.

- Examinations are held at Christmas and summer with reports sent home. As is good practice a proportion of marks awarded at these times is based on students' performances in end-of-topic tests and on their coursework.

## PLANNING AND PREPARATION

- The role of subject coordinator is shared, with one teacher responsible for TG and another responsible for DCG. Formal planning meetings are held once per term but minutes of these meetings have not been maintained. It is recommended that records be kept of these meetings and that these be forwarded to management for consideration.

- Separate planning folders have been developed for the two subjects. These follow the SDPI template and are very well developed.

- The schemes of work within the planning folders are well laid out and clear.

- To further improve on the subject planning, it is recommended that the subject department identify priorities for the future development of the subjects within the school. Priorities could include: increasing student uptake at higher level and increasing the numbers of students opting to study DCG after completing the JC.

- It is suggested that a more comprehensive cataloguing of resources within the schemes of work would strengthen collaboration amongst subject teachers and would prevent the duplication of work. Resources listed should be linked to topics and could include handouts, interesting websites, digital presentations, reference books, *SolidWorks* models as well as solutions prepared by teachers

- Students' outcomes in the certificate examinations are analysed and compared to the national norms. This good practice provides a valuable insight into the standing of the subjects and can be used to inform future planning for the subjects.

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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.