

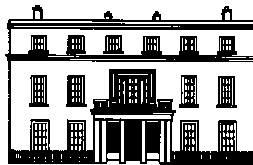
An Roinn Oideachais agus Scileanna

Department of Education and Skills

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

**Saint Columba's College
Whitechurch, Dublin 16
Roll number: 60320H**

Date of inspection: 9 February 2012



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

REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS
(TG) AND DESIGN AND COMMUNICATION GRAPHICS (DCG)

INFORMATION ON THE INSPECTION

Date of inspection	9 February 2012
Inspection activities undertaken <ul style="list-style-type: none">• Review of relevant documents• Discussion with principal and teacher• Interaction with students	<ul style="list-style-type: none">• Observation of teaching and learning during four class periods• Examination of students' work• Feedback to principal and teacher

MAIN FINDINGS

- Overall, teaching and learning in the three lessons observed was of a poor standard.
- Expectation levels for student achievement and attainment rates are particularly low.
- The quantity and quality of formative assessment is unsatisfactory.
- The college has recently increased the level of provision of DCG at senior cycle.
- Good efforts have been made to develop subject planning practices.

MAIN RECOMMENDATIONS

- It is imperative that efforts are made to raise both teacher and student expectations of appropriate achievement and attainment levels.
 - A focused approach should be placed upon developing the methodologies employed in graphics lessons to include aspects such as improved sequencing of lessons, more focused teacher demonstrations and structured student activities.
 - The quantity and quality of formative feedback should be increased in order to enable students to reach their full potential.
 - Greater emphasis should be placed on planning and preparing teacher and student activities in order to enhance students' learning experiences.
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INTRODUCTION

Saint Columba's College is a fee-paying co-educational voluntary secondary school with an enrolment of 285. The school offers TG as an optional subject in its junior cycle programme and DCG as an optional subject in its Leaving Certificate programme. Currently the school does not offer DCG in its optional Transition Year (TY) programme.

TEACHING AND LEARNING

- Overall, teaching and learning in the three lessons observed was of a poor standard.
- There is significant scope for development in the overall structuring of lessons. Most lessons lacked a logical sequence and improvements could be made through the identification of clear, attainable learning outcomes at the beginning of lessons followed by teacher and student activities designed to reinforce learning. Learning outcomes should also be reviewed at the end of lessons to identify students' levels of understanding.
- Teacher instruction and demonstration was primarily carried out on an individual basis. In some instances this method was effective. When group demonstrations were utilised the teacher's presentation levels were occasionally inadequate. During these demonstrations students were often passive participants or disengaged in the activity.
- Questioning was effective during one lesson. During this lesson students were asked to participate in the revision of two elliptical construction techniques. Students volunteered answers willingly and made good use of subject-specific terminology in this instance.
- The visualiser was used as a display medium in two lessons. This demonstration tool provided the teacher with the opportunity to model best practice. However, there is scope for improvement in relation to its implementation and use. Every effort should be made to ensure that constructions demonstrated by the teacher using this method are carried out using recognised draughting techniques. In doing so, students will be encouraged to use their technical drawing apparatus appropriately, thereby enabling them to complete their work accurately and to a high standard of precision and presentation. A focus on improving teacher presentations using the classroom board would also be beneficial.
- During lessons, teacher circulation was good and it enabled the teacher to advise and guide students in relation to the correct construction techniques. A positive rapport has developed between teacher and students and behaviour was good throughout the evaluation.
- The overall assessment procedures employed by the subject department are unsatisfactory. While all drawings are monitored, poorly presented drawings are accepted without any meaningful degree of formative feedback. This has resulted in few students developing a sense of pride in their work or striving to improve the quality of their drawings. The subject department should address this issue as a matter of priority.
- Uptake of higher level in graphics subjects is particularly low. Attainment at ordinary level is also low and indicates that many students are performing well below their potential. To address this issue the subject department should identify suitable standards of work through ongoing review of chief examiners' reports and coursework guidelines, and through the identification of appropriately high uptake and attainment rates for each student cohort. This outcomes-based approach is essential as the current low expectation levels are having a detrimental effect on students' learning.

SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Having completed a compulsory first-year sampling course in Latin, students are given the opportunity to choose TG upon entering second year. This situation is not ideal as it reduces the time available for teaching and learning TG significantly.
- Currently DCG is not offered as part of the school's optional TY. The subject department should consider including elements of DCG in the existing Construction Studies module.
- The recent increase in time allocated to DCG from two periods per week to five periods per week is welcome. The very low uptake of DCG at senior cycle does however raise issues regarding the future viability of the subject.
- The graphics room is fit for purpose. Information and Communication Technology (ICT) resources are integrated effectively thereby facilitating the potential incorporation of resources developed by the Technology Subjects Support Service that are available at www.t4.ie.
- The subject department has attended the recent professional development courses provided during the introduction of the new DCG syllabus. Any networking opportunities that may have arisen from these courses should be maximised in order to provide peer support for the subject department.

PLANNING AND PREPARATION

- Good efforts have been made to improve subject planning practices. These efforts have resulted in a subject plan for both graphics subjects being developed. This plan consists of the general guidelines governing the delivery of the subjects and more detailed curricular plans for each year group. These plans, designed within specified timeframes, are topic based and outline key chapters of the textbooks to support the delivery of subject matter. To support the recommendation made regarding structuring and sequencing of lessons, these plans should be further enhanced to identify the key learning outcomes for all topics identified.
- There was scope for development in the level of planning and preparation for all lessons observed. Increased levels of planning would have enhanced students' experiences and assisted in the teaching and learning of certain topics. Below is one example of how observed practice could have been improved.
- A sixth-year lesson focused on assembled and sectional views of various components. Parametric models of each component were not prepared beforehand. These models would have allowed the student to visualise the assembled parts and also to alter the sectional plane's position dynamically, thereby demonstrating alternative sectional views of the same object. This approach would have provided the student with a very good animation of the effect that the plane's position has on the sectional view. Opportunities such as this, to enhance the learning experience for students, should be taken whenever possible.

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 on the findings and recommendations of the report; the board chose to accept the report without response.

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