Subject Inspection of Technical Graphics and Design and Communication Graphics
REPORT

St. Brendan’s College
Bray, County Wicklow
Roll number: 61790D

Date of inspection: 15 September 2011
REPORT
ON
THE QUALITY OF LEARNING AND TEACHING IN TECHNICAL GRAPHICS AND DESIGN AND COMMUNICATION GRAPHICS

INFORMATION ON THE INSPECTION

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<td><strong>Inspection activities undertaken</strong></td>
<td><strong>Observation of teaching and learning during six class periods</strong></td>
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<td>• Review of relevant documents</td>
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<td>• Discussion with principal and teachers</td>
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MAIN FINDINGS

- Graphics lessons were generally delivered effectively with some areas for development in time management and in the scale used for whiteboard constructions.
- Students’ technical skills are developed to a high level and their completion of class and portfolio work demonstrated their clear understanding of the topics completed.
- The uptake of higher level and students’ attainment levels in certificate examinations are good.
- Management is very supportive of the ongoing development of Technical Graphics (TG) and Design and Communication Graphics (DCG) in the school.
- Graphics subjects are popular among students and uptake has increased in recent times particularly at junior cycle.
- High-quality collaborative planning practices were evident from the documentation reviewed and teachers’ individual planning was of a good standard.

MAIN RECOMMENDATIONS

- Additional formative feedback should be relayed to students to improve their learning and to help teachers reflect upon their teaching strategies.
- A DCG module should be designed and introduced into the school’s Transition Year (TY) curriculum.
- The subject department should further develop its engagement in strategic planning and identify clear measurable targets for the ongoing improvement of graphics education in the school.
INTRODUCTION

St. Brendan’s College Bray offers Technical Graphics (TG) and Design and Communication Graphics (DCG) as optional subjects in its Junior Certificate and Leaving Certificate programmes. Currently DCG does not form part of the school’s optional Transition Year programme. The school has a total enrolment of 336 students. The board of management was given an opportunity to comment in writing on the findings and recommendations of the evaluation, and the response of the board will be found in the appendix to this report.

TEACHING AND LEARNING

- In the main graphics lessons were delivered effectively. The lessons observed had clearly identifiable learning outcomes that were shared with students from the outset. The majority of lessons were structured appropriately and delivered at a pace that was suitable to the tasks and to the students’ abilities. Some consideration should be given to prioritising student activity over teacher input in single period lessons and the scale used for whiteboard constructions.

- Student participation was facilitated by teachers throughout the lessons observed. Student involvement in the learning process helped to create lessons that were interactive and interesting.

- Demonstration was the primary methodology employed during the lessons observed. These demonstrations took place using a variety of media including the whiteboard, chalkboard, drawing boards and interactive data projection. The display of correct procedures and techniques was most effective when carried out at the chalkboard and when interactive data projection techniques were utilised.

- Resources incorporated into the lesson helped students to visualise concepts and to reinforce their understanding of essential constructions. The colour coding of lines and surfaces enabled teachers to highlight key points and also helped students to improve their spatial competencies and awareness.

- Targeted questioning strategies were incorporated into lessons occasionally. To further improve students’ cognitive engagement in lessons, teachers should consider utilising strategies such as ‘no hands’ in order to maximise this engagement.

- Differentiation was evident in one lesson observed. Students who had completed an assigned task were given an additional sketching exercise to supplement their learning. The incorporation of additional sketching tasks should be implemented throughout the subject department not only to develop students’ freehand skills but also to promote the concept of problem solving among students.

- Student behaviour was exemplary during the lessons observed.

- The graphics classroom is well equipped and provides both students and teachers with a high-quality teaching and learning environment. High-quality student drawings and designs were displayed to affirm students’ efforts and to maintain high standards. Additional examples of DCG assignment portfolio work should also be displayed.

- Uptake of higher level and attainment in certificate examinations is good. Students’ class and portfolio work demonstrated a good level of draughting and were well maintained. In a few instances students added short notes to their drawings to enhance and reinforce
their understanding. This note-making practice should be developed throughout the subject department and promoted as a useful study aid.

- All portfolios were monitored appropriately; however additional formative feedback on students’ work would be most beneficial. Increased levels of feedback would not only inform students but also help teachers to identify areas of the syllabus where students were having difficulty, thereby further informing their teaching.

**SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT**

- The school offers TG and DCG as optional subjects for junior certificate and leaving certificate students. The subject department should develop an appropriate DCG module and incorporate it into the school’s TY curriculum in order to provide prospective students with the possibility of sampling DCG.

- School management is currently considering the introduction of the Leaving Certificate Applied (LCA) programme. In anticipation of the possible introduction of LCA, the subject department should review the Graphics and Construction Studies course. This review should help to identify the possible challenges regarding the implementation of the course as either an elective module or vocational specialism and allow the subject department to plan accordingly.

- Teachers are allocated appropriately to both subjects and programmes and the time allocated to the subjects is in line with common practice.

- An open evening is held to inform students and parents of possible optional subjects prior to entry to first year. Uptake of TG is particularly good and the number of students choosing DCG has increased since the introduction of the revised syllabus.

- The subject department is very well resourced and has access to a specialist graphics room equipped with a wide variety of resources, models and information and communication technology (ICT) hardware and software applications. ICT resources are stored on the local server and the subject department is currently progressing plans to upload graphics-specific resources to the school’s website. These initiatives are commended.

**PLANNING AND PREPARATION**

- Subject planning has developed appropriately in St. Brendan’s College. Co-ordination duties are rotated and shared thereby encouraging a collaborative approach to subject planning to develop.

- Records of planning meetings provided evidence of the discussion of a wide variety of issues ranging from student outcomes to incorporating the school ethos in graphics lessons. To further develop these good practices the subject department should identify clear and attainable goals for the future development of the subject in the school. These goals may include the introduction of a TY module, planning for the possible introduction of LCA, common assessment procedures, or tracking and goal setting with individual students.

- Subject plans for TG and DCG clearly outline the sequence for the delivery of the subjects. These plans are adhered to, especially with the two second-year groups where common assessments are planned.
• Teachers’ individual planning and preparation for lessons was of a high standard. This was evident from the incorporation of a wide range of topic-specific electronic and geometric models into lessons.

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.

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Appendix

School response to the report

Submitted by the Board of Management

Area 1: Observations on the content of the inspection report

The school management and members of the DCG/TG Department in St. Brendan’s College welcome the report of the DCG/TG inspector. We are very happy with the many positive comments and commendations contained in the report and feel that the report reflects fairly the huge effort and work put into the teaching of DCG/TG by the teaching team involved. We welcome the comments and recommendations contained the report. Some of these have already been discussed by the Principal with the teachers concerned and the rest will be taken on board during future subject planning sessions.

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 school recently held a staff development day at which the introduction of the LCA programme was discussed. This discussion was facilitated by a representative from the PDST. If a decision is taken to implement this programme, the DCG/Construction Studies module will be incorporated into the programme. It is also planned to introduce a TG/DCG module into the Transition Year programme for 2012/2013.