Subject Inspection of Technical Graphics and Design and Communication Graphics
REPORT

ÁrdscOil na mBráithre
Clonmel, County Tipperary
Roll number: 65320J

Date of inspection: 1 December 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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MAIN FINDINGS
- Overall teaching and learning in graphics lessons observed was very good.
- A very good range of teaching methodologies was employed by the subject department.
- Graphics subjects are very popular among students at both junior and senior cycle.
- Student attainment in certificate examinations at both levels is good.
- Senior management is facing a significant challenge in order to maintain the viability of the technology subjects offered in the school due to the popularity of the subjects and the recent and impending reduction in number of qualified personnel on staff.
- While subject planning is good, there are some weaknesses in Transition year (TY) planning and in the methods used to record the proceedings at subject department meetings.

MAIN RECOMMENDATIONS
- The suggestions made in the teaching and learning section of this report in relation to encouraging students to annotate their drawings and the promotion of higher level among high-achieving ordinary level students should be progressed in a collaborative manner.
- Senior management should investigate the viability of implementing co-operative teaching strategies in some graphics lessons.
- The TY module should be fully reviewed to ensure that it is consistent with the principles of the TY programme.
- The proceedings of subject department meetings should be recorded in a manner that is conducive to action planning while also placing a significant emphasis on developing classroom practices.
INTRODUCTION
Árdscoil na mBráithre, offers Technical Graphics (TG) and Design and Communication Graphics (DCG) as optional subjects in its Junior Certificate and Leaving Certificate programmes and as a compulsory component of its optional Transition Year (TY) programme. The school has a current enrolment of 701 students. The board of management of the school was given an opportunity to comment in writing on the findings and recommendations of the report, and the response of the board will be found in the appendix of this report.

TEACHING AND LEARNING
- Overall the quality of teaching and learning in the graphics lessons observed was very good.
- Lessons were structured appropriately and teachers incorporated clear introductions, development and summation of subject matter into the students’ learning experiences. Students were given appropriate time to apply their learning and consolidate their skills.
- Information and communication technology (ICT) resources were utilised effectively in all lessons observed. Visual presentations, parametric modelling software and the classroom visualiser were used to demonstrate constructions and to help develop students’ visualisation skills.
- When utilised, sketching was an effective teaching strategy. Colour and shade was also utilised to help students recognise surfaces and edges viewed from various viewpoints. These techniques worked well and students were also encouraged to include these practices in their own work.
- Lessons were organised in a manner that enabled subject matter to be divided into manageable segments for students. This approach enabled teachers to circulate among students regularly and to provide them with good levels of oral formative feedback.
- Pair work was incorporated effectively into one lesson. This task was well managed and students were given clear instructions from the outset. Each pair was given the opportunity to report back to the class group and the findings were recorded and discussed collectively. This method encouraged discussion and discourse and was particularly useful in the context of concept design.
- The practice of encouraging students to annotate their drawings was observed in one lesson. This very good practice should be adopted by all members of the subject department.
- Good questioning techniques were employed in most lessons observed. Best practice was observed when questions were differentiated to students’ abilities and where adequate time was given to students to formulate and express their answers.
- Students were very well behaved throughout the course of the evaluation.
- Overall the quality of student drawing was very good. Uptake of higher level and attainment in certificate examinations is generally good. However, the subject department should continue to emphasise to parents and high-achieving ordinary level students the advantages of sitting the higher level examination.
SUBJECT PROVISION AND WHOLE SCHOOL SUPPORT

- Graphics subjects are offered to students in all of the school’s curricular programmes. The time allocated to these subjects is in line with common practice and lessons are scheduled appropriately.

- Uptake of the subjects is very good. This is particularly the case at junior cycle where there are two class groups in each year group.

- The success of the subjects places a strain on the school’s resources as it also offers Technology and Material Technology (Wood) to junior certificate level and Construction Studies to leaving certificate level. Senior management is facing a significant challenge in order to maintain the viability of the technology subjects offered in the school due to the popularity of the subjects and the recent and impending reduction in number of qualified personnel on staff. All avenues should now be explored in order to mitigate the possible negative effects of recent staff changes.

- The subject department has a significant level of resources at its disposal. These resources are well maintained and easily integrated into lessons. ICT hardware and software is readily available and both geometric and electronic models are easily accessible.

- The subject department identified students’ literacy and numeracy skills as factors that hinder some students’ abilities to access subject matter fully. To address this issue, senior management in collaboration with the special education co-ordinator and the subject department should investigate the possibility of incorporating co-operative teaching into the graphics subject area.

PLANNING AND PREPARATION

- A system of subject department planning is in place. A subject department co-ordinator is appointed on an annual basis and this position is rotated among all members of the department.

- While subject planning meetings are recorded, a more structured approach should be taken to ensure that issues discussed, outcomes and responsibilities are clearly identified at the end of each meeting.

- Good quality subject plans have been developed for both TG and DCG. To eliminate repetition these plans should be consolidated to form one comprehensive document.

- The planned delivery of curricular content is based upon desired learning outcomes within specified timeframes. To further enhance this form of planning all electronic resources should be documented and linked to particular areas of the curriculum.

- The TY plan is based upon developing students’ parametric modelling skills. This is a worthwhile goal. However the methods employed need to be reviewed to ensure that the module is delivered in a manner more closely aligned to the principles of TY.

- The reflective practices employed by one member of the subject department detail student learning in all class groups. In doing so the teacher is able to identify areas for improvement and to inform future practice. This good practice should be adopted by all members of the subject department. Teachers’ individual planning and preparation for lessons was very good. Good practice was also observed where State Examinations Commission documentation was used to inform teaching and learning.
The draft findings and recommendations arising out of this evaluation were discussed with the principal and members of the subject department 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 Board of Management of CBS High School Clonmel welcomes the many positive findings and strengths identified in the inspection report. It would also like to acknowledge the professional manner in which the inspection was carried out.

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 Board will continue to support and promote the teaching and learning of Technical Graphics and Design and Communication Graphics in the school and will assist the subject department in the implementation of the main recommendations.

The Board strongly supports the notion of cooperative teaching but believes that it will be extremely difficult to implement such a recommendation due to recent and impending staff reductions.