

**REPORT OF THE GDC INSPECTORS ON THE  
BTEC LEVEL 3 EXTENDED DIPLOMA IN  
DENTAL TECHNOLOGY AWARDED BY  
EDEXCEL**

**SHEFFIELD CITY COLLEGE & EDEXCEL**

**27<sup>th</sup> MARCH 2012**

**REPORT OF THE INSPECTORS**

**MS M HARRIS (CHAIR)**

**MR C PARKER**

**PROFESSOR P HEASMAN**

**MR L MELIA (QA OFFICER)**

## OVERVIEW

### Overview

Sheffield College deliver this programme to a sufficient standard with a strong awareness of the need to equip students with practical skills ready for the work environment. The College has good relationships with local dental laboratories and NHS organisations, and a tutor team that is held in high regard in the local area. We felt there was an overall sense of support for dental technology at the College and were encouraged by the positive attitude of the students we met.

The College has excellent facilities to deliver the programme but needs to improve the overall infrastructure and administration of the course. We were disappointed at the level of administrative management. This was highlighted at an early stage with the inspection Base Room not being fully set-up with the documentation requested in the Council's Pre-Inspection Questionnaire.

We observed a strong but informal relationship between the students and the tutors, but no forum to record and audit student issues. The creation of a staff-student committee would be of great benefit to record and document student feedback and identify reoccurring themes. This would also provide the opportunity for tutors to hone course content on a practical level, and allow for a targeted approach to teaching the curriculum.

The relationship between the College and the laboratory work-based placement also requires formalising. We felt there are currently good but again informal links between the course tutors and local laboratories. Our consideration is that measures should be in place to ensure students are receiving comparable experiences while outside the College environment. The implementation of a formal schedule of visits to placements would assist in identifying inconsistencies at an early stage and allow for closer monitoring of student progress.

We reviewed a *Grading Review Sampling Report* and a *Resample Report* compiled by the awarding body, Edexcel, in March 2012. The material included evidence that suggested student work had not been internally verified. In addition, assessment records indicated a final grade for a unit had been awarded when work had not yet been completed. Subsequent contact with both the College and Edexcel has shown an action plan has been agreed to improve this area with monitoring to follow including a further review by Edexcel. It is a requirement that the auditing of assessment decisions be clearer and verified both internally and externally.

We were disappointed that student clinical logbooks were not available on the day of the inspection and subsequently provided by post. A majority of the logbooks did not display the correct course title on the front cover and all of them were mapped to the old course units from the previous Level 3 BTEC National Award and Diploma. The content of the few logbooks with the correct course title were copies of the out-of-date editions. We have noted the significant similarities in content between the previous diploma and the extended qualification that is the focus of this report, and accept that students have acquired the appropriate knowledge and practical skills, despite completing assessment and course literature mapped to the older programme. It is a requirement that all course material is updated immediately and evidence provided to the GDC before the next intake of students in September 2012.

## Introduction & background

1. As part of its duty to protect patients and promote high standards, the General Dental Council (GDC) monitors the education of student dentists and dental care professionals (DCPs) at institutions whose qualifications are approved by the GDC. The aim is to ensure that these institutions provide high-quality learning opportunities and experiences and that students who obtain a dental qualification are safe to practise.
2. The purpose of the inspection was to assess whether the BTEC Level 3 Extended Diploma programme in Dental Technology conforms to the GDC's requirements for the training of dental technicians and whether, on qualification, students would be acceptable for registration with the GDC.
3. This report sets out the findings of a one-day inspection to Sheffield College using the assessment principles and guidelines set out in *Developing the Dental Team – Second Edition (Interim) 2009* (DDT) as a benchmark. The report notes some good practices in the course provision, but also draws attention to a number of areas that require improvement. The report is based on the findings of the inspection and on a consideration of supporting documents prepared by the College.
4. The inspection took place on 27<sup>th</sup> March 2012. During the inspection, we met with academic staff of the College. We also met with a selection of year two students on the BTEC Level 3 Extended Diploma programme in Dental Technology; the Head of Department, the College Quality Assurance Officer, and the College Principal.
5. On the day of the inspection, the inspection Base Room was not fully set-up with the documentation requested in the Council's Pre-Inspection Questionnaire. The inspection team was advised that the College had not been informed by the GDC what material would be required on site. We have therefore reviewed our pre-inspection correspondence and would ask the College administrators to note page two of the full Pre-Inspection Questionnaire provided by the GDC on 18<sup>th</sup> January 2012 and the subsequent copy of the completed Questionnaire returned to the QA Team by Sheffield College in February 2012, still including page two that clearly outlines all documentation required at an inspection visit. In future, it is essential that all inspection paperwork is considered in detail by the College, and contact is made with the GDC to quickly clarify any areas of uncertainty.
6. The programme is awarded by Edexcel and is currently taught in four institutions across the United Kingdom – Birmingham Metropolitan College, Sheffield City College, Lambeth College, and the Belfast School of Dental Technology. The GDC treats each course provider separately and inspections will be undertaken at all institutions before allowing diplomates to register as dental technicians. The programme is delivered over two years to full time students only. The average intake to the full-time course is 16, which is also the projected figure for future cohorts.
7. The report(s) will be considered by the GDC Registrar. The School will be given the opportunity to correct any factual errors and then submit observations on the content of the report. The report, together with the School's observations, will be published on the GDC website.

## Programme content and delivery

8. Sheffield College's Dental Technology provision sits within the Dental, Science and Animal Care section, and is delivered at the Sheffield City College site. A new building opened on the campus in 2010. It is an impressive facility, providing students with modern teaching and learning environment. Within the new building, Dental Technology is situated in purpose built areas with industry standard dental laboratory equipment.
9. This award may be taught at various accredited institutions across the United Kingdom. It is a 180-credit programme, consisting of 18 separate units of differing weighting. We found that the College ensured all the GDC dental technology learning outcomes were adequately covered and assessed through delivery of the programme. The 18 module course content is large for a two-year programme but benefits from a strong amount of practical experience that the College has built into its provision.
10. The course materials are designed by the tutors in accordance with Edexcel guidance for unit content and learning outcomes. Units are taught through a combination of lectures, seminars, and practical assessment. Both tutors and students told us they recognised the importance of the employer/work placement experience. The students we spoke to were acutely aware of the transition in competency from College based learning to applying their skills in a real life environment with the daily practicalities of working in a commercial laboratory, sometimes at considerable pace.
11. The level of administrative awareness and programme management requires improvement. We observed a lack of clarity for who is responsible for the overarching organisation of the programme. This was highlighted on a very practical level with students using out-of-date logbooks mapped to the old Level 3 BTEC National Award and Diploma (see paragraph 29). We felt there was also a governance gap between the teaching staff at the delivery stage and the College faculty that maintain the more administrative, governmental areas of the course.
12. The College does deliver a dental nursing programme but there is no combined teaching and little evidence of the concept of dental team working being embedded throughout the course. Student exposure to other members of the profession is largely dependent on their environment at their employer or while on a work placement.
13. The College is aware of the dental team's prominence in the new Learning Outcomes of *Preparing for Practice*. There was acknowledgement of an opportunity with the establishment of the new Learning Outcomes to seek stronger links with students studying in other areas of the profession at the Charles Clifford Dental Hospital and the Sheffield Teaching Hospitals NHS Foundation Trust. It was understood that contact will be made with the hospitals in the near future to explore possibilities for more integrated learning.
14. The College intends to have two intakes to the course in September 2012 with subsequent years alternating between a single intake and a double intake. The tutors are confident that resources and a practical timetable has been worked out that allows for three cohorts to run without diminishing the learning environment. The current third year students finishing the BTEC National

Diploma in Dental Technology and the current second year students completing this inaugural BTEC Extended Diploma programme will create the space both in the teaching timetable and free up opportunities for work placements in local laboratories.

15. It was of some concern to note that Edexcel does not review technical feedback on the practical content of the programme and its teaching. It was felt that this is a significant weakness in the programme as the internal monitoring and peer review system are not undertaken by a registered dental technician. The focus of the Edexcel is on teaching ability rather than the quality and suitability of technical content, which is of vital importance to a registerable qualification. It is a requirement that a further QA system is introduced that focuses on the technical content of the course and utilises an external, registered dental technician to scrutinise delivery of the programme.

### **Work placements**

16. The final 10-credit unit of the programme is Work-based Learning in Dental Technology. The unit is designed to enable students to contribute to the development of transferable skills and should be carried out in a dental laboratory setting. The unit requires students to maintain a logbook for the duration of a work-based dental technology practical project, which is then assessed by tutors at the end of the course.
17. Work placements are organised by students and tutors working together to match people to suitable work environments and areas of interest within the profession. Students are encouraged to take the initiative and approach local laboratories. There are currently good informal links between the course tutors and laboratories within the region. We were told that course tutors have strong reputations in the industry and are able to use contacts to assist with finding placements when there is a difficulty. However, we felt these associations require formalising to ensure rigorous quality assurance and closer monitoring of student progress within the clinical environment. With the reduction of the length of the course from three years to two years, it is vital that students are provided with as wide a range of technical experience as possible. The College should develop measures to make sure students are not simply left performing more menial laboratory tasks and get the opportunity to hone their skills across the range of technical competences while outside of the College environment.
18. We understand that there are limited opportunities for jobs and work placements in the local area and it is not easy to get laboratory owners to formally engage with the College. We were encouraged to hear that an emergency first aid course has been run with 70 attendees and felt further CPD events could be used as an incentive for laboratory owners to give up their time to visit the college. We were also pleased to note that students who have completed previous incarnations of the diploma have stayed in the local area and are eager to remain in contact with course tutors. We felt this offers a further opportunity to build professional links into the course, and receive formal input from employers on curriculum design.
19. The student support mechanisms along with staff visits to work placements require formalising. There is currently no formal feedback to ensure consistency of teaching and comparable experience across locations. There is also no structured schedule for visits of placements by tutors, nor is there a system to monitor how a workplace mentor is progressing with a student. There is a

designated work placement tutor who is tasked with visiting placements however the individual is not afforded any hours outside teaching commitments and relies on support from the other two members of the teaching team, who undertake visits within the local area when there is time.

### **Staff issues**

20. The programme is delivered by two full-time dental technology tutors along with a part-time tutor and a part-time technician. The team has substantial professional and teaching experience and offer a practical focus to the provision of the course. We felt they showed a great commitment to the students with an open door policy for individuals to raise academic and pastoral issues. From our discussion, we were confident that the team works well together as a unit, are highly motivated and receive strong backing from the College. However, we found the tutors lacked an awareness of the administrative side to running the programme, which needs addressing. It is a requirement that the team receives training and support from the College in maintaining an audit of assessments, managing quality assurance, and keeping course literature up to date.
21. The College will be recruiting a fourth member of staff, who will be a registered Dental Technician. We felt this is a positive step and we were pleased to note that the College recognises an opportunity to incorporate new technology and IT skills into the course with the appointment.

### **Student issues**

22. Attrition rates for the programme were reported as 10% in the College documentation however our discussion with the student group identified a large amount of replacement applicants arriving on the course due to non-starters or individuals leaving at an early stage in the programme. While it is appreciated that there can be a degree of fluctuation in cohort numbers at the beginning of an academic year, full figures should be used when calculating attrition rates.
23. The year two students we met commented that the programme is very fast paced and due to a lack of clinical knowledge, it had been difficult to make an informed decision about selecting a primary area of dental technology in which to train. The tutors are addressing this by making year one free of a work placement. The current year one students will only do work placements in the second year, which will give the cohort an opportunity to gain more awareness of the three main specialisations within Dental Technology – removable prosthodontics, orthodontics, and fixed prosthodontics – before making their decision about which area they specialise in. We felt this was a largely positive rearrangement that offered students, particularly those that have not come from a clinical background, the chance to explore the profession. However, we felt this must not encroach on students' time at work in the clinical environment and places extra emphasis on the monitoring of clinical progress in year two to make certain that a full range of skills is being acquired.
24. The student group we met had some anxieties about their work-based placements in local laboratories, and the reduction of the programme from a three-year diet to a two-year one. There were also strong opinions about course content and the order assignments should be taught in. At present, there is no formal forum to record and audit these opinions and the College relies on the strong but informal relationship between students and tutors. The creation of a staff-student committee would be of great benefit to record and document

student feedback and identify reoccurring themes. This would also provide the opportunity for tutors to hone the provision of the course content on a practical level, and allow for a targeted approach to teaching the curriculum.

25. In general, the students we met told us they were happy with their experiences on the BTEC. They found it tough, yet rewarding and expected it to be a challenging course. We gained the impression that work placements are a vital component of the learning experience and must be closely monitored to ensure the continued development of practical skills while outside of the College setting.
26. Professionalism, fitness to practise and the roles and responsibilities of the dental team is covered in a 10-credit unit. Students were aware of the standards that will be expected of them as a member of a registered profession.

### **Assessment**

27. The assessment process is comparable with other BTEC courses, incorporating assignments and practical work including:
  - Written evidence and research studies in the form of assignments
  - Oral presentations
  - Discussions
  - Direct observations
  - Work-based assessment

The programme does not assess students using examinations: course leaders have applied to Edexcel's method of assessment, which is continuous and allows feedback and the opportunity to improve. Each unit has a set number of assessments, most of which are written, although there are also practical assessments where appropriate.

28. As in all BTEC National programmes, all units are internally assessed and criterion reference, based on the achievement of specified learning outcomes. Achievement can be at three levels - pass, merit or distinction. Practical assessment is marked according to how much help is needed from the tutor. The marking criteria supplied by Edexcel are extremely clear and very specific. The marking criteria for every unit are provided in the student handbook.
29. Student clinical logbooks were not available on the day of the inspection but subsequently provided by post. A majority of these did not display the correct course title on the front cover and all of them were mapped to the old course units from the previous diploma. The content of the few logbooks with the correct course title were copies of the out-of-date editions. The inspection team has therefore made a comparison of specifications between the Subsidiary Diploma/Extended Diploma we are looking in this report and the previous Level 3 BTEC National Award and Diploma it has replaced. We have noted the significant similarities in course content between the two, and accept that students have acquired the appropriate knowledge and practical skills, despite completing assessment and course literature mapped to the Level 3 BTEC

National Award and Diploma. It is a requirement that all course material is updated immediately and evidence of the completion of the task is provided to the GDC before the next intake of students in September 2012.

30. We reviewed copies of a *Grading Review Sampling Report* and a *Resample Report* compiled by Edexcel in March 2012. We were concerned to find that there was evidence of student work not being internally verified and assessment records indicating a final grade for a unit that had not yet been completed. Subsequent documentation has shown an action plan is in place to improve this area with monitoring to follow including a further review by Edexcel. It was felt this was indicative of the lack of emphasis placed on the administration of the programme, including the clear documenting of student assessment. It is a requirement that the auditing of assessment decisions be clearer and verified both internally and externally.
31. Arrangements for appeals follow Edexcel's procedures. Where a student wishes to appeal against the assessment decision of his or her assessors, he or she should make a request to the internal verifier. A second decision will be made by another member of the programme team and will involve the candidate. If the decision remains unsatisfactory to the candidate, the external verifier will be approached to make a final decision concerning the appeal.
32. There is no final exam board for this programme. Following successful verification, candidate names are forwarded to Edexcel for the certification of the BTEC Extended Diploma in Dental Technology.

### **Conclusion**

33. We were satisfied that the curriculum is being delivered as proposed in the original submission to the GDC and that it conforms to the GDC's principles and guidance as published in DDT.
34. We recommend that this programme be granted 'sufficiency'.

## **Requirements**

### **To the College**

- Ensure that GDC literature is read in full and any clarifications on process or administration are sought at the earliest opportunity. (5)
- Improve the level of administrative awareness and management across the programme. (11)
- Increase the opportunities for dental team working amongst College students. (12, 13)
- Investigate ways in which students can be assisted in gaining work placements (17, 18)
- Links between the College and work placement venues need to become more formalised to ensure rigorous quality control. There should be mentor training and close monitoring of the progression of student clinical skills. (17, 18, 19)
- The creation of a staff-student committee is needed to document student feedback and identify reoccurring concerns. (24)
- Ensure that all course material is updated immediately and evidence of the completion of the task is provided to the GDC before the next intake of students in September 2012. (29)
- Provide the GDC with updates on further reviews and sampling reports undertaken by Edexcel. (30)

### **To Edexcel**

- Introduce a verification system that focuses on the practical content of the course and utilises an external, registered dental technician to scrutinise delivery of the programme. (15)

### **To the GDC**

- Follow-up actions taken in response to the requirements are monitored

*[NUMBERS IN BRACKETS REFER TO INDIVIDUAL PARAGRAPHS WITHIN THE MAIN BODY OF THE REPORT]*

## GDC Report of the Inspectors 27<sup>th</sup> March 2012

### Response to recommendations on page 8

1. The questionnaire for GDC inspections of new DCP programmes has been saved to our internal intranet for Dental Technology staff. Paper copies also sent to all DT team and to the Sheffield College Quality Assurance Unit. In late September 2012 the Dental Technology Team Meeting will have as its focus this document. If there are any areas of clarification required by the team on process or administration we will contact GDC Quality Assurance.
2. From 1<sup>st</sup> September 2012 the programme area has been restructured so that we have a Programme Lead: Paul Golland (working to the Head of Department for Science) who will co-ordinate all aspects of programme management including awareness raising of administrative processes. The Assistant Principal for the area will monitor termly - directly with Paul Golland.
3. By October 2012 the Dental Nursing and Dental Technology sections will identify a number of shared outcomes that can be delivered together. For example Communication units, some aspects of Health and Safety, Cross Infection Control. The intention being to deliver jointly in 12/13.
- 4/5 The Course Leader will meet with the college Placement Manager in September 2012 with the intention of integrating the Dental Technology Team into this well managed unit. The links to Dental Technology placements and employers will then become more formatted, have Health and Safety checks prior to students starting and reviewed on a regular basis. Formal recording of tutor visits, student progress and mentor reports to be part of the student portfolio.

A mentor guidance will be designed that outlines the college's expectations of the placement experience and the competences that it requires of the student throughout the placement period. The Course Leader, Head of Department and Assistant Principal will arrange to meet with the Charles Clifford Dental Hospital to expand the already close links that the college has through Dental Nursing to Dental Technology.

6. Each group will nominate/elect a representative, these will then meet formally with the team on a termly basis. This has already been introduced.
7. The new log books have been amended and are being reproduced over the summer, a copy of which will be sent to the GDC Quality Unit in September 2012 **before** it is issued to the students.
8. Any reviews and sampling reports by Edexcel External Verifiers will be copied in to the GDC. The report includes all of the Science undertaken in the college - we will therefore only send information that relates to Dental Technology.