Education and Training Inspectorate

Report of an Evaluation of

Provision for the Priority Skills Area of Information and Communication Technology (ICT) and Computing at Level 3

across the

Six Regional Colleges in Northern Ireland

November 2010



Providing Inspection Services for Department of Education Department for Employment and Learning Department of Culture, Arts and Leisure



CONTENTS

| Section | | Page |
|---|--|------|
| PART ONE: INTRODUCTION | | |
| 1. | CONTEXT | 1 |
| 2. | SUMMARY OF MAIN FINDINGS | 2 |
| PART TWO: MAIN FINDINGS | | |
| 3. | PROVISION | 4 |
| 4. | OVERALL EFFECTIVENESS OF THE PROVISION | 5 |
| 5. | LEADERSHIP AND MANAGEMENT | 5 |
| 6. | QUALITY OF THE PROVISION FOR LEARNING | 8 |
| 7. | ACHIEVEMENTS AND STANDARDS | 12 |
| PART THREE: CONCLUSIONS AND KEY PRIOITIES FOR DEVELOPMENT | | |
| 8. | CONCLUSION | 14 |
| 9. | KEY PRIORITIES FOR DEVELOPMENT | 14 |

PART ONE: INTRODUCTION

1. CONTEXT

1.1 This report summarises the findings of an evaluation of the provision at level 3 for the priority skill of information and communication technology (ICT) and computing in the six area-based colleges of further education¹. Information and communication technology and computing refers to the study of the ongoing development and use of computer systems, mobile devices, communication networks, data distribution systems, new and emerging technologies, and specialist software applications in all aspects of our business and personal lives². In 1999 the Northern Ireland Skills Task Force identified ICT and computing as one of the six skill areas that were of vital importance to the Northern Ireland economy³. The further education provision for the priority skill area of ICT and computing at level 3 comprises of full-time and part-time professional and technical courses to primarily prepare students for employment in, and to up-skill existing employees within, the information technology (IT) and Telecommunications sector of Northern Ireland's economy. At the time of the evaluation two of the colleges had designated centre of excellence status in ICT and computing from their previous legacy colleges⁴.

1.2 In its publication 'Technology Counts' e-skills, the Sector Skills Council for Business and IT, highlights a number of key findings for the IT and Telecommunications sector in Northern Ireland⁵. In summary the report highlights that, despite the economic downturn that has resulted in a fall in demand for IT and Telecommunications professionals, Northern Ireland is still highly dependent on the IT and Telecommunications workforce. Three percent of people working in the Northern Ireland are currently employed in the IT and Telecommunications sector which is forecast to grow at 2.6% per annum to 2018, with more than 1,900 new entrants needed to join it every year to keep up with demand for continued growth and to address replacement demand for those who leave the sector. Skills needs will also change with professionals expected to be multi-skilled, having sophisticated business and interpersonal skills as well as technical competence, and there will be much greater demand for higher level networking and software oriented roles. Across the sector gender is a significant issue with just 17% of IT and Telecommunications professionals in 2009 being female.

1.3 The Department for Employment and Learning⁶ (the Department) also highlights a number of key areas which are important to the future development of policy for the ongoing development and sustainability of the IT and Telecommunications sector in Northern Ireland. These include high level skill demands from industry, falling numbers of ICT enrolments, the negative perception of the ICT sector, the gender participation gap, the link between the curriculum at post-primary and undergraduate level, links between education and industry and the continuous supply of highly skilled entrants to the IT and Telecommunications industry.

¹ ICT and computing also incorporates software development which is a key element of the curriculum provision at level 3 across the colleges. Although designated as a separate priority skill, the main provision for software engineering as a specialist professional and technical area across the colleges is at level 4 and above

² Software engineering is the process used for the development of specialist computer programmes and software applications ³ Software Engineering was identified as a separate skill area

⁴ Three colleges were centres of excellence in software engineering

⁵ E-skills Technology Counts - IT & Telecoms Insights 2010

⁶ Oxford Economics Research Study on High-Level Skill Needs in Northern Ireland ICT Sector 2009

1.4 The further education sector has a significant role to play in addressing the key issues highlighted both by the Department and e-skills. This includes the provision of an appropriate curriculum in ICT and computing at level 3 which meets the needs of industry, and the development of the necessary skills and attributes of the students to allow them to progress and contribute fully to the ongoing development of the IT and Telecommunications sector in Northern Ireland.

2. SUMMARY OF MAIN FINDINGS

2.1 All the colleges offer a good range of full-time ICT and computing programmes at level 3. Students are provided with the opportunities to develop the general range of technical ICT and computing skills and knowledge necessary to gain employment at a level appropriate to their study or to progress in their learning.

2.2 Enrolments to full-time ICT and computing programmes are good and are increasing across the colleges, however, only a small number of enrolments across the colleges are female.

2.3 Enrolments to part-time programmes are decreasing across the colleges, with most applicants targeting shorter or specialist qualifications to meet their needs or enable them to up-skill or re-skill as a consequence of the current economic downturn. Four of the colleges offer a satisfactory range of part-time courses at level 3 which have been planned and designed to meet industry needs. An appropriate range of programmes at national award level or lower are also offered in the community and to post-primary schools by these colleges. In two of the colleges the part-time provision, including industry training, is under-developed.

2.4 The management and co-ordination of ICT and computing programmes is good or better in four of the colleges. In best practice, good relationships exist between staff and curriculum managers, and there is good collegiality across campuses; individual programmes are well managed and co-ordinated across the colleges with good documentation and tracking and recording of student progress.

2.5 Most of the lecturers, across the colleges, are well-qualified and experienced in the delivery of ICT and computing programmes. In addition, they have good opportunities to undertake continuous professional development including studying for professional vendor qualifications, attending local, national and international conferences, or undertaking a range of in-house staff development programmes.

2.6 The overall quality of the teaching and learning is good or better in a majority of the lessons observed. In ICT and computing most of the lessons are good or better. In the provision for the development of literacy and numeracy for full-time ICT and computing students, however, a majority of the lessons are satisfactory or inadequate. Opportunities which exist in the mathematics for IT and communications and employability units to develop the students' literacy and numeracy skills are not being fully exploited.

2.7 The standards of work produced by most of the students across the colleges are good or better. They are making good progress in their learning and demonstrate good technical and practical skills in a range of disciplines including programming, website design, graphics, networking, games development, and general ICT work.

2.8 The pastoral care and learning support arrangements, including additional learning support, is good for students across almost all of the colleges.

2.9 A significant minority of students have been enrolled to ICT and computing programmes at level 3 without having achieved at least a General Certificate in Secondary Education (GCSE) pass at grade C in English and/or mathematics.

2.10 The development of work-related learning, enterprise and entrepreneurship, and curriculum enhancement including the use of guest speakers, industry events, real-life scenarios or case studies, is limited in the level 3 curriculum provision across the colleges.

2.11 The programme of careers education, information, advice and guidance (CEIAG) is not formalised for students on full-time ICT and computing programmes in four of the colleges.

2.12 There is a lack of innovation in the use of information and learning technology (ILT) by lecturers on ICT and computing programmes across the colleges to support their teaching and learning.

2.13 The quality of the hardware and software resources and accommodation for ICT and computing programmes is only satisfactory in two of the colleges.

2.14 The achievement rates on full-time ICT and computing programmes at level 3 are poor across the colleges.

PART 2: MAIN FINDINGS

3. **PROVISION**

3.1 All of the colleges offer full-time and part-time ICT and computing programmes at level 3. The full-time provision consists mainly of national diploma/certificate programmes in a range of disciplines, including the:

- BTEC National Diploma for IT Practitioners (Software Development);
- BTEC National Diploma for IT Practitioners (General);
- BTEC National Certificate for IT Practitioners (IT and Business);
- BTEC National Diploma in Media Production (Games Development); and
- BTEC National Certificate in Computer Rendered Entertainment and Animated Media (CREAM).

3.2 Two of the colleges offer the full-time General Certificate in Education (GCE) Applied Double Award A-level ICT qualification as a standalone qualification or alongside another national award programme. Although it provides an appropriate progression path to studying IT-related degrees at university, employers have voiced concerns in regards to the specification and learning materials associated with the GCE Applied ICT qualification⁷. As a result, both colleges are currently reviewing their provision and curriculum offer.

3.3 All of the colleges have appropriately structured their national diploma provision to allow students to achieve at various levels including national awards, certificates or diplomas.

3.4 Students have access to good progression paths across the colleges with opportunities to undertake programmes of study from level 2 to level 4 or higher. There is evidence of good progression across the levels in ICT and computing programmes.

3.5 Enrolments to full-time ICT and computing programmes are high and are increasing across the colleges, however, only a small number of enrolments across the colleges are female.

3.6 Enrolments to part-time programmes are decreasing across the colleges, with most applicants targeting shorter or specialist gualifications to meet their needs or enable them to up-skill or re-skill as a consequence of the current economic downturn. As a result, recruitment to more generic courses such as part-time national certificate programmes in ICT and computing is poor with provision decreasing across the colleges. Four of the colleges offer a satisfactory range of part-time courses at level 3 which have been planned and designed to meet industry needs. These include CISCO, CompTia and Microsoft qualifications in a range of disciplines such as networking, systems security and software development, and ICT essential skills qualifications. In one college the economic engagement is targeting the delivery of courses to meet the specific needs of local industry. and in another a fast track national award ICT course is available as part of the college's rapid response programme for industry. An appropriate range of programmes at national award level or lower is also offered in the community and to post-primary schools by these colleges. In two of the colleges the part-time provision, including industry training, is under-developed.

⁷ The e-skills UK Strategic Plan for Northern Ireland 2010-2014

3.7 All of the colleges identify four GCSE passes at grade C or above, or equivalent, as their main entry criteria to ICT and computing programmes at level 3. Whilst the entry profile of most of the students across the colleges meets the criteria, a significant minority of students enrolled on these programmes have not achieved at least a GCSE pass at grade C or above in English and/or mathematics. As a consequence, they have been identified by the colleges as needing to develop their literacy and numeracy skills and competences, and are required to enrol on essential skills programmes. In one college, the entry profile of the first year students is particularly weak in terms of academic ability and grades achieved, and a majority of students are struggling to cope with their programme. Subsequently, retention rates are modest. The college is reviewing its recruitment process and is considering the provision of different entry and progression routes for students at different ability levels.

4. OVERALL EFFECTIVENESS OF THE PROVISION

4.1 The overall effectiveness of the provision at level 3 for the priority skills of ICT and computing is outstanding in one college, very good in one college, good in two colleges, and is satisfactory in two colleges. Given the Department's commitment to ensuring high quality education and training, the weaknesses in the overall quality of the provision need to be addressed as a matter of urgency by those colleges with only satisfactory provision, if they are to meet the needs effectively of their students and the wider community.

4.2 Of the two colleges who had designated centres of excellence status in ICT and computing, the overall effectiveness of the provision was outstanding in one and very good in the other⁸.



5. LEADERSHIP AND MANAGEMENT

STRATEGIC LEADERSHIP

5.1 The management structures and job roles for staff at various management levels are different for ICT and computing programmes across all of the colleges. Senior and middle managers, and programme co-ordinators are working extremely hard, sometimes within tight financial constraints and at times heavy workloads, to sustain and develop the ICT and computing provision across the colleges. In addition, they are working within complex organisational structures, four of which are spread across large geographical areas, with increasing numbers of full-time students.

⁸ Of the three colleges who had designated centre of excellence status in software engineering, the overall effectiveness was outstanding in one but only satisfactory in the other two.

5.2 In four of the colleges the management and co-ordination of ICT and computing programmes is good or better. In best practice, good relationships exist between staff and curriculum managers, and there is good collegiality across campuses; individual programmes are well managed and co-ordinated across the colleges with good documentation and tracking and recording of student progress.



Best Practice example of Leadership and Management:

In one college, the quality of the leadership and management of ICT and computing/software programmes is outstanding. Due to the particular style of management employed, good channels of communication have been developed for staff across the college and a uniform and standardised programme of study developed. There is sharing of information and good practice through cross-campus team meetings, cross-marking moderation meetings, standardised internal verification procedures and the development of an electronic team site to facilitate the sharing of resources and the tracking and monitoring of student progress. Video conferencing is used effectively to facilitate cross-campus meetings and good contingency planning is in place to allow a minimum of disruption to programme delivery if a member of staff also take place. In addition, good links to industry have been established and the use of real life projects has been embedded in programme delivery.

5.3 Where less effective management practice is evident, there is limited management and co-ordination across college campuses, fewer opportunities for staff to meet and share good practice, and a lack of cohesion and standardisation in programme provision. In two of the colleges, heavy workloads, limited access to appropriate hardware and software, and a lack of effective curriculum leadership and management across campuses are having an adverse affect on staff morale.

ACTION TO PROMOTE IMPROVEMENT

5.4 The quality of the self-evaluation and improvement planning processes is variable across the colleges. In four of the colleges, curriculum managers have produced a concise and realistic evaluation of the ICT and computing provision at level 3 across the college and produced an appropriate improvement plan which has been agreed with the quality

manager. In the remainder, the self-evaluation reports are general and descriptive and do not focus sufficiently on the quality of the overall provision across the college and how it can be improved. There is also a lack of specific short term working targets in the improvement plans against which progress can be measured.

STAFFING AND CONTINUAL PROFESSIONAL DEVELOPMENT

5.5 Most of the lecturers, across the colleges, are well-qualified and experienced in the delivery of ICT and computing programmes; they deliver across a range of programmes at different levels and across college campuses. A significant number of lecturers have also successfully participated in the Learning and Skills Development Agency Northern Ireland (LSDA NI) lecturers into industry initiative and a small number are external verifiers for awarding bodies, have participated in foreign exchange programmes or been members of international project teams.

5.6 Lecturers have good opportunities to undertake continuous professional development including studying for professional vendor qualifications, attending local, national and international conferences, or undertaking a range of in-house staff development programmes. In one college planning is taking place to refresh course teams and up-skill staff to ensure that the college continues to have the capacity to deliver ICT and computing programmes in the future.

PHYSICAL RESOURCES

5.7 Students and staff in four of the colleges have good access to an appropriate range of industry standard up-to-date hardware, software and programming languages or software development tools. In one college, the hardware and software resources available to students on the games development programme are excellent. Across the colleges wireless access for students using their own laptops is a developing feature, however, this is not widely used by students due to restricted access and concerns about security by the colleges. In two of the colleges, the quality of the hardware and software resources and accommodation for ICT and computing programmes is only satisfactory. Whilst lecturers and students in the colleges are doing well with the resources they have, there are issues across the colleges in terms of access to computer rooms with up-to-date industry standard hardware and software, software licences and standardisation of the use of software across campuses, and capacity issues if student numbers are sustained or continue to increase.

ECONOMIC ENGAGEMENT

5.8 Although staff across the colleges have developed appropriate links to industry, Sectoral Skills Councils, Workforce Development Forums, and other sectoral bodies, and one college has developed an innovation centre, the involvement of industry in the planning, delivery and review of the ICT and computing curriculum provision and assessment process at level 3 is under-developed. Examples of good practice exist, including one college leading the Department funded Open Source Software project. To date, it has supported 60 businesses to raise their capacity to make use of Open Source software applications to bring about business improvement. This has been well-managed in the college; the support provided to industry by staff in the college is excellent. It has also helped refresh the curriculum for full-time students, where they make use of Open Source software applications in their work. In the main, however, the inclusion of work-related learning, enterprise and

entrepreneurship, or curriculum enhancement such as the use of guest speakers, industry events, or real-life scenarios and case studies in programme delivery at level 3 are limited. In addition, although the colleges are currently planning for the introduction of new ICT and computing programmes within the qualification and credit framework (QCF), good opportunities for them to consult with industry on the content of the curriculum provision are not being fully exploited.

5.9 The links between ICT and computing programmes and other technical and professional areas such as electrical and electronic engineering, and the promotion of ICT and computing as a science, technology, engineering, and mathematics (STEM) related subject are also under-developed across the colleges. In addition, although there is an awareness of the work done by the ICT Future Skills Action Group⁹ to promote the software industry in Northern Ireland and the implementation of the new e-skills Employer Board, there is no strategic overview from curriculum managers in the colleges of the ICT and computing provision at level 3 across the sector.

6. QUALITY OF THE PROVISION FOR LEARNING

QUALITY AND EFFECTIVENESS OF THE CURRICULUM

6.1 The number of employment opportunities for students achieving ICT and computing qualifications at level 3 is limited in Northern Ireland with most employment opportunities targeted at graduates from higher education courses. The full-time computing and ICT provision at level 3 across the colleges does, however, provide students with the opportunities to develop the general range of technical ICT and computing skills and knowledge necessary to gain employment at a level appropriate to their study, if the opportunity arises, or to progress in their learning. The technical and professional programmes on offer by the colleges contain a range of units which provide opportunities for students to progress to a number of career pathways including programming (software development), web design, networking, systems architecture, multi-media, and games development.

6.2 The number of hours allocated to the delivery of full-time ICT and computing programmes is similar across the colleges, with time allocated for core ICT and computing units, a tutorial session and additional time allocated for essential skills classes. The mode of delivery on full-time programmes varies across the colleges, and across individual college campuses, with particular units structured so that they are semesterised or offered over the academic year. Whilst the mode of programme delivery will depend on specific circumstances within individual colleges or campuses, best practice is demonstrated where there is a standardised and uniform delivery of the programme units and a standardised assessment process across the college. In one college, in addition to their core ICT and computing units and essential skills classes, students are also provided with a pastoral tutorial, an additional tutorial and project time which are well planned and used effectively to enhance their overall learning experience.

Best Practice example of Programme Delivery:

Full-time students enrolled on the National Diploma in Media Production (Games Development) in one college undertake an additional unit in programming which meets well the needs of the students.

⁹ ICT Future Skills Action Plan Progress Report 2009

6.3 As part of their national diploma provision all of the colleges offer a communications and employability unit to enhance the employability skills of their students and to meet the needs of industry through the development of general skills such as teamwork, time-keeping, independent working and problem-solving. With the exception of one college, a mathematics for IT unit is also offered to enhance the students' mathematical skills and knowledge and to prepare them for progression to further and higher education. These units also provide good opportunities for students to further develop their general literacy and numeracy skills.

THE QUALITY OF TEACHING AND LEARNING

6.4 During the evaluation 95 full-time and part-time lessons were observed. These included 79 (83%) lessons in ICT and computing, and 16 (17%) lessons in the wider context of literacy and numeracy development for ICT and computing students including mathematics for IT, communications and employability and the essential skills of literacy and numeracy.



6.5 The overall quality of the teaching and learning was good or better in a majority (74%) of the lessons observed. In ICT and computing most (82%) of the lessons were good or better. In the provision for the development of literacy and numeracy for full-time ICT and computing students, however, a majority (69%) of the lessons observed were satisfactory or inadequate.

6.6 Most of the lecturers use an appropriate range of teaching approaches effectively including demonstration, questioning, practical sessions, problem-solving techniques, small group work, videos, on-line resources and peer evaluation. In best practice, the lecturers organise lessons to include short practical and theory sessions to ensure that students are not constantly working at computers but can engage in other activities such as small group-work or discussion.

Best Practice examples of Teaching and Learning:

In one lesson observed students participated in teams in a debate on 'privacy' versus 'freedom of information'. They were all actively engaged in their learning, raising some very topical points for consideration and fully enjoyed the experience. In another, the students worked effectively in small groups to evaluate a range of games controllers for a game that they were developing. They then participated in a plenary session to discuss the strengths and limitations that the controllers would have for their own game.

6.7 In the lessons observed where the quality of teaching and learning was less effective, the range of teaching strategies used by the lecturers to support the needs of students was narrow. The teaching was mostly directed by the lecturer and students had few opportunities to actively engage in their learning; the expectations for the students were low and there was a lack of enthusiasm from the lecturers. In addition, a small number of part-time lecturers are employed, across the colleges, with limited or no previous teaching experience and they are not being effectively supported in the development of their pedagogical skills by college management.

6.8 With the exception of one college, the provision of opportunities for the inclusion of enterprise and entrepreneurship in course delivery on the full-time level 3 ICT and computing programmes is limited. In this college students are involved in a range of local and national initiatives and projects including a local city centre management project, enterprise competitions, inter-campus competitions, and a national web design competition. A number of industrial visits have taken place, and guest speakers have been used to support the students learning experiences. ICT and computing lecturers have also developed international links to other colleges and good links have been established with media programmes in the college through joint projects and competitions.

Best Practice example of Innovation and Creativity:

In one college students devised an idea for a new computer game and competed in a 'Dragon's Den' type inter-campus competition to reach the final, where they presented their idea and were interviewed by a panel of experts from business and the games industry. The quality of the presentations and responses to panel questions were of very high quality. A range of prizes, including a week's work experience with a major software company, were sponsored by the panel members.

6.9 Opportunities are provided, through essential skills classes, for those students who have been identified as having a need to develop their literacy and numeracy skills and competences. The links between these classes and the students' main ICT and computing programmes are largely under-developed. In addition, the good opportunities which exist to develop further the students' literacy and numeracy needs in the mathematics for IT and communications and employability units, as part of their full-time national diploma provision, are not being fully exploited.

6.10 Most of the lecturers and programme teams across the colleges have developed a good range of online resources which are stored on the colleges' virtual learning environments (VLEs) and shared across campuses. Most students have good access to their college VLE and a majority of the students interviewed had accessed it remotely; they spoke positively about the available resources and the support available for their programmes of study. The VLEs, however, are mostly used by lecturers as a repository for information and in two colleges they continue to operate alongside common student and staff drives which are not well managed or organised. In addition, the use of ILT, including interactive whiteboards, to support teaching and learning is basic and mostly includes the use of PowerPoint presentations with hyperlinks or links to short videos. The use of new or innovative technologies is mostly under-developed across the colleges.

Best Practice examples of the use of Information and Learning Technology:

In one college, a complete programme of study in games development is administered and delivered totally through electronic means with a minimal amount of paper-based input. In another, ILT mentors are used to support and assist the lecturer in the use of ILT in the classroom, including the development of teaching strategies to use ILT more effectively and innovatively to support teaching and learning.

ASSESSMENT

6.11 Across the colleges students are increasingly availing of facilities to submit their coursework electronically and there is evidence of good feedback and marking for improvement from lecturers. The arrangements for internal verification of assessments are good across all the colleges. In four of the colleges students are also aware of the progress they are making in their coursework and on their overall programme, and value this and the feedback they receive. In the other colleges, access to on-line tracking and performance management systems are under-developed.

Best Practice example of Student Feedback:

One lecturer used on-line marking facilities and a range of feedback mechanisms to support the students including comment boxes, hyperlinks, links to e-books and MP3 files.

CAREERS EDUCATION, INFORMATION, ADVICE AND GUIDANCE

6.12 The provision of a formalised programme for CEIAG is good in two colleges but is under-developed in the other four. In best practice the students had met and are familiar with the role of the careers officer in the college, and are aware of further education and career progression paths, as well as specific job roles available and the skills set needed in the IT and Telecommunications industry.

6.13 In four of the colleges, the students are unsure about where they could progress to and what skills and qualifications employers wanted. The CEIAG programme in these colleges is based mainly around the Universities and Colleges Admissions Service (UCAS) and is not effectively meeting the needs of the students. Across all of the colleges there is also a lack of careers information available for those students who may not want wish to pursue a career in ICT and computing beyond level 3.

STUDENT SUPPORT

6.14 Good pastoral care and learning support arrangements are in place for students across almost all of the colleges. A small number of students on ICT and computing programmes also avail of additional learning support. Almost all of the students interviewed are happy on their programmes and most speak highly of the support they receive from their lecturers or designated support officer.

6.15 Although tutorial classes are an integral part of the timetables across the colleges, the tutorial support programmes are mostly informal and unstructured. The use of the electronic individual learning plan (e-ILP) is also variable across the colleges. In four of the colleges it is not used effectively. In an example of best practice in one college, the programme co-ordinator makes good use of the e-ILP and uses it systematically to support,

track and monitor the progress of students; he has identified how it can be developed further and linked to other college processes to enhance the student learning experience and the management of students and their learning. In another college, good processes are also in place through the student council to allow student input to the development of the college support system.



7. ACHIEVEMENTS AND STANDARDS

7.1 The standards of work produced by most of the students across the colleges are good or better. They are making good progress in their learning and demonstrate good technical and practical skills in a range of disciplines including programming, website design, graphics, networking, games development, and general ICT work. Most of the students have good oral communication skills and respond well to questions and tasks set in class. They have developed good working relationships with their lecturers and peers.



7.2 Course assignments and project work are mostly set at an appropriate level with a good degree of challenge for the students. In best practice there is standardisation in the assessment process in terms of the content, layout, standard, success criteria, and quality assurance processes used across the college; links also exist between technical and professional units or real life projects and scenarios, and assignments are quality assured by industry representatives. Where examples of less effective practice in the assessment tasks; the

assignments contain simulated scenarios, the expectations from the lecturers are low and students are not actively engaged in their learning. In one college, the programme team are revising the assessment content on the national diploma programme to take account of the different ability levels of students with consideration being given to shorter, more concise and focused assignment tasks, time-constrained assignments, class tests, and the re-introduction of end-of-unit examinations.

7.3 Retention rates on full-time ICT and computing programmes vary significantly across the colleges from poor at 37% to satisfactory at 70% but are mostly modest. As a consequence, achievement rates vary significantly from poor at 34% to modest at 67% but are mostly poor.

7.4 Achievement rates on part-time ICT and computing programmes vary across the colleges and range from modest at 67% to good at 84% but are mostly satisfactory. Retention rates on part-time programmes are mostly excellent.

7.5 A number of strategies have been implemented by the colleges to improve retention issues, including a review of the structure and management of programme teams, re-directing students to programmes of study at different levels, reviewing the entry criteria for programmes, closer data monitoring, improved student support sessions, revising assessment strategies to include a variety of evidence incorporating videos, graphics, quizzes, and photographs as an alternative to the written form. Whilst the strategies are starting to have an effect on retention levels, poor achievement rates remain a major issue on full-time ICT and computing programmes at level 3 across the further education sector.

PART 3: CONCLUSIONS AND KEY PRIOITIES FOR DEVELOPMENT

8. CONCLUSION

8.1 The overall effectiveness of the education provision for the priority skills of ICT and computing at level 3 is good or better in the majority of the colleges. In one college the provision is outstanding, it is very good in one college, good in two colleges, and is satisfactory in two colleges.

9. **KEY PRIORITIES FOR DEVELOPMENT**

9.1 While this report highlights strengths in the provision of ICT and computing programmes across the colleges it has identified a number of key issues. In order to improve the quality of the provision in the technical and professional area of ICT and computing the colleges and the Department need to:

- implement strategies to develop more effective work-related learning, curriculum enhancement and enterprise and entrepreneurship in the level 3 curriculum across the colleges;
- implement strategies to address the poor to modest retention rates on full-time courses, which contribute towards low levels of achievement;
- review the provision and marketing strategies used for part-time courses to target and meet more appropriately the specific needs of students and industry;
- implement more effective enrolment procedures to ensure that all students have achieved appropriate levels of competence in literacy and numeracy to allow them to progress successfully in their learning and meet the specified outcomes for their ICT and computing programmes;
- implement strategies to attract and inform female students about career opportunities in ICT and computing;
- review the provision for careers education, information, advice and guidance (CEIAG) for students on full-time ICT and computing programmes; and
- ensure that all students on ICT and computing programmes have access to good quality hardware and software resources and accommodation.

© CROWN COPYRIGHT 2010

This report may be reproduced in whole or in part, except for commercial purposes or in connection with a prospectus or advertisement, provided that the source and date thereof are stated.

Copies of this report are available on the ETI website: www.etini.gov.uk

