

CITSCAPES Project CASE STUDY REPORT



GLASGOW CALEDONIAN UNIVERSITY

A CITSCAPES Publication

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Executive Summary

The GCU Senate agreed in principle in June 1999 to conduct a pilot exercise aimed at the introduction of a University-wide compulsory scheme for the achievement by all students in their first year of study of a baseline level of C&IT skill. The proposal before Senate had considered the feasibility and costs of a range of possible approaches, including the adoption of the European Computer Driving Licence, but had recommended an approach based on the scheme adopted at the University of Glasgow. This involved assessing students on a 'baseline' competency in a number of common applications, but also, crucially for HE, added a requirement for information searching skills. Pre-pilot work had been funded through the Academic Development Fund, a central resource to support innovation, steered by the University's Learning and Teaching Committee. The proposal was also supported by the Information Strategy Steering Group, and had already achieved a University-wide consultation which was able to demonstrate the support in principle of a majority of the academic Departments.

The pilot project exceeded its target of achieving the certification of 500 students in the academic year 1999-2000. The pilot proved necessary in the design of an acceptable scheme for the compulsory certification of all students. The key element in the design was the flexibility of allowing the students to achieve the baseline standard through a range of possible routes, with a common assessment, centrally administered. The range of possible ways in which the students might achieve the baseline competency includes embedded training through existing modules, the provision of tutor-led training sessions offered by the central Student ICT Skills Service, self-teach and online methods, or the use of drop-in clinics. Also, it is possible for any student to self-rate themselves as already possessing the baseline skills, and to sit the assessment without any additional instruction at all.

Senate approved the compulsory element of the scheme in June 2000 and agreed to move to a University-wide policy from 2001-2002.

In the climate of fierce competition for resources that exists in a post-1992 HEI the introduction of a new University-wide policy such as compulsory C&IT certification can only occur when there is both a compelling external case for change, and also the commitment of senior management. In the GCU case the Principal's personal commitment was evident from the start. It was also important that a source of central funding was available for an extended pilot which allowed a transitional phase to be developed and trialled. There was also in this case the influence of the developments at the University of Glasgow, which had already achieved a compulsory University-wide scheme, and was willing to collaborate with GCU.

In the Senate debate on the recommendation that such a compulsory requirement should be adopted for all GCU students it was crucial that a pilot project had achieved consultation across all Departments, and had already demonstrated that the scheme was workable. Many details of implementation remained to be designed for the inclusion of every student but the flexibility of provision allowed agreement to be reached with programme organisers. The only remaining hurdle was the issue of funding. This was finally resolved by top-slicing generic elements of the scheme and charging for centrally provided training.

At the time of writing this report the full scheme is agreed and final details are being discussed with programme organisers, and the IT Support Service. Some questions remain which will reveal over the academic year 2001-2002 whether the provision has been fully

resourced, whether the infrastructure of support is in place, and whether the baseline has been pitched at the right level.

1. Introduction

1.1. *The Institution*

Glasgow Caledonian is a 'post-1992' University. Formed after a merger between centrally funded Scottish HEIs in Glasgow, it received University status in 1993 and is now one of the larger universities in Scotland with over 14,000 students. It is located in the centre of the city of Glasgow.

GCU is one of the leading Scottish Universities with an access mission, taking a high proportion of its students from the West of Scotland, and having the largest enrolment of part-time undergraduates in Scotland. Programmes have a strong career focus, resulting in a high graduate employment rate. The University's Mission Statement highlights this:

"Glasgow Caledonian University has a distinctive role in Scottish Higher Education, providing flexible life-long learning opportunities to students from a wide variety of backgrounds and at different stages of their lives:

Working together with professional bodies, employers and others in education to support students gain nationally recognised qualifications, enhancing their skills and advancing their careers.

Developing the capabilities of all our staff, strengthening the university's profile nationally and internationally in research, scholarship and learning.

Promoting the regeneration of the West of Scotland through the generation and transference of higher skill levels, partnering others in applied research and the commercial development of the regional knowledge base."

GCU Mission Statement, 2000 (<http://www.gcal.ac.uk/about/vision.htm>)

It is worth noting that even in its mission statement the University acknowledges the importance of generic skills.

1.2. *Management Structure*

GCU has adopted a management structure consistent with its status as a post-1992 institution. The Executive provides strong central management, with all Executive posts, including Deans, being permanent appointments (see Appendix 1). There is a single exception to this: the Assistant Principal (Quality) is elected by academic staff as a three year appointment. Heads of Departments are also permanent appointments. Following recent appointments several members of the Executive have professional backgrounds from outside Higher Education.

The committee structure is conventional, with Senate being responsible for academic policy and the Executive for resourcing. Senate has a number of standing committees which bring forward recommendations. These are the Academic Policy and Practice Committee, Learning and Teaching Committee, Academic Quality and Standards Committee, Research Committee, and Research Degrees Committee. The Executive also conducts its business through a number of committees. For the purpose of this case study

the most relevant is the Information Strategy Steering Group, chaired by the Director of Learning and Information Resources.

As with most universities, the above kind of formal description does not necessarily capture the complexity of decision making, and the gap between policy and implementation. In practice, policy emerges in many ways, some being quite reactive, others *ad hoc*; some policy is implemented in detail, other policy never gets implemented at all because of pressure on resources. GCU is not unusual in this respect. It is also the case that developments in policy can often be driven by the influence and drive of individuals, sometimes acting at moments which are opportunistic. Nevertheless, since 1998 GCU has undergone a quite intense process of articulating strategy. More than in most HEIs, the Senate and Court of the University have engaged in a sustained attempt to define a vision for the institution.

1.3. Academic Structure

There are currently three Faculties within the institution: Caledonian Business School, Faculty of Health and the Faculty of Science and Technology. These are further subdivided into a total of 20 departments, schools or divisions and it is within these that over 90 undergraduate and 40 postgraduate programmes are run (see Table 1).

The Caledonian Business School is the largest in Scotland and the Faculty of Health is the largest of its kind in the UK.

Faculties	Number of Schools	Departments / Divisions	Under-Graduate Programmes	Post-Graduate Programmes	Number of Students
Business School	1	10	26	16	4500
Faculty of Health	2	4	28	8	5000
Science and Technology	2	6	41	18	3000
Total	5	20	95	42	12500

Table 1: **Summary of Faculty Structure**

The University also runs professional courses in several subject areas.

There are a number of non-faculty departments with interest and/or input to C&IT training. For example, the Department of Learning and Educational Development (DLED), the Library, Student Services and Information Technology Support Centre (ITSC).

1.4. Academic Year Structure

The academic year is divided into 2 semesters, each lasting 15 weeks – 12 weeks for teaching and a 3 week examination period. The university has adopted a modular system, with a typical module involving around 175 hours of academic work. In each semester

students will typically take three modules each worth 20 SCOTCAT points.¹ To obtain an ordinary degree students must gain 360 SCOTCAT points. For an honours degree 480 SCOTCAT points must be gained.

1.5. Collaborative Partnerships

The University has collaboration agreements (or with some, at the time of writing, statements of intent) with four Further Education colleges – Glasgow College of Building and Printing, Glasgow College of Food Technology, Coatbridge College and James Watt College. In some programmes, teaching is shared between GCU and the college. Students benefit in terms of university access, progression and opportunities for further study.

There are a number of other institutions that work closely with GCU offering franchised courses, joint delivery and awards.

1.6. C&IT Provision within the University

C&IT resources are currently managed on a ‘Local Management – Central Co-ordination’ model. Faculties/Schools/Departments determine their own C&IT approaches to support learning, administration and research. In some areas such as procurement of desktop computers and the network backbone infrastructure, there is central co-ordination through the Information Technology Support Centre (ITSC). Exploring and developing the potential of C&IT to support independent learning is carried out at Faculty/School/Department level and also through the Department of Learning and Educational Development.

The University has approximately 80 C&IT support staff providing a range of services for staff and students. The majority of the staff are located and managed locally within Faculties/Schools/Departments.

The current student to computer ratio is 9:1. Computers are primarily located in Faculty/School/Department-owned labs. A dual-platform exists with both the Business School and the Faculty of Science and Technology using PCs and Faculty of Health using Macs. Computer labs within each Faculty are connected through a local area network. Students are provided with login IDs and user work space to allow them access to computer resources within their own Faculty. Several hundred computers (mostly PC) with general student log-ins are located within the Electronic Information Floor of the library. Also, within the library, there is a small training lab for student use and the STILT (Staff Training in Learning & Teaching Technology) lab.

The University has standardised on a common applications package – Microsoft Office – via a site licence. All students and staff are provided with an e-mail account. Currently this is *Eudora* for students and *MS Outlook* for staff.

¹ SCOTCAT: Scottish Credit Accumulation and Transfer Scheme

2. History of Provision

The following history gives details of the rapidly changing situation in C&IT skills training within the University over the past 2 years. This history helps provide an insight into the objectives and operation of the current provision.

2.1. Pre-1999

Prior to 1999, the policy within the University was to embed core skills development, including C&IT skills, in University modules. In many programmes, especially in the Faculty of Science and Technology and the Business School this appeared to work adequately, since a high level of C&IT skill capability was an integral part of some of the modules studied. However there were still a number of programmes which did not address this issue at all.

For many students the only C&IT induction provided was a one-hour general introduction to some of the C&IT resources available within the University. This was provided by the Library during Induction Week and included information about student email, hardware and software including CBT software packages available in the Library. Attendance at this session was voluntary.

Overall, there was no systematic requirement for students to demonstrate their competence in C&IT, and there was growing evidence that many students were falling short of the minimum required level of skill to benefit from the University's increasing use of C&IT in teaching and learning. In February 1999, the chairs of the Information Strategy Steering Group and Learning and Teaching Committee tabled a proposal asking Senate to agree to the following:

- compulsory attainment of a minimum standard of competence in C&IT skills;
- adoption of a standard University-wide test;
- approval of a flexible approach to training to meet the required standard (e.g. embedded in modules, offered by departments separately from modules, flexible/open learning, bought in from outside providers).

Senate gave broad approval to this outline policy but requested that a more detailed policy document and proposal be tabled at the Senate meeting in June 1999.

2.2. Research on C&IT Training Requirements

A short-term project was funded through the University's Academic Development Fund from April to June 1999 to carry out a University-wide consultation on the use and attainment of student C&IT skills; and to investigate current approaches to C&IT skills development within other educational establishments and industry. The results of this wide-ranging consultation would form the basis of the detailed report and a set of recommendations for the June 1999 Senate meeting.

At least one academic representative from each department within the University was consulted to determine at what level of study attainment of particular C&IT skills was considered appropriate. They were also consulted on the current level of C&IT skills acquired by students within their programme of study; access to C&IT resources; approaches to teaching and learning of C&IT skills; and departmental views on certification and accreditation of C&IT skills.

The important issues to come out of the consultation process were:

1. The current policy was to embed the teaching of C&IT skills in modules. This demonstrated a very variable level of provision, depending on modules studied, programmes and faculties. Clearly students taking some modules were provided with a high level of training in C&IT skills, while other students received no C&IT training at all.
2. The consultation carried out in the University identified a broad agreement on two levels of generic student C&IT skills: basic skills required at the start of programmes of study, and more advanced skills required later.
3. There was almost unanimous agreement for raising the profile of C&IT skills. However, opinion was divided on whether attainment of these skills should be certified, accredited, compulsory or optional.
4. An essential feature, which emerged during the consultation, was the need for flexibility in whatever solution was adopted in terms of the delivery and approach to teaching and assessment.

As part of the research study, other approaches to C&IT skills training within other institutions were investigated. At the time, the University of Glasgow was the only Scottish university that made attainment of a baseline standard compulsory for student progression. The *IT for Effective Study* programme started in the University of Glasgow in 1994/5 and became compulsory for all first year students from the academic year 1998-1999. Other Scottish universities (including Strathclyde University and Queen Margaret University College) had also adopted this baseline for training but did not make attainment compulsory. The University of Glasgow IT baseline closely matched the basic set of skills identified as required by GCU students during level 1 of their study.

This baseline can be reached through a number of different routes – a 12-hour ‘Basic’ course (for those with no or little IT experience), an 8-hour ‘Orientation’ course (for those with some IT experience) and a 4-hour ‘Refresher’ course (an introductory session about the University’s IT services plus some self-teach material). Reaching the baseline is assessed by competence-based assessment, including a large document built up over the duration of the course.

Other institutions in the UK were adopting similar approaches but in most cases attainment or accreditation was not compulsory.

Industry-recognised C&IT skills standards were also investigated for the possibility of adoption across the University. These included the European Computer Driving Licence qualification. However, it was considered that some components of this were not appropriate for all level 1 students at GCU and within it some subjects such as information searching were not adequately covered. In addition, the time required to study all of the modules and the testing costs were considered too high for adoption across the University.

The research carried out resulted in a paper which was presented at the Senate meeting of June 1999 which recommended that a pilot project be carried out in the academic year 1999-2000 with the main aims of:

- issuing certificates of Basic ICT Competency to 500 students;
- providing centrally co-ordinated training based on Glasgow University materials and assessments;
- involving a wide range of students, from various programmes and applying a 'mixed economy' of training provision offering various routes to achieving the baseline (including exemption);
- investigating appropriate means of supporting part-time, direct entry and post-graduate students;
- deciding whether or not to invest in the development of GCU's own teaching and assessment materials.

The paper also recommended that the pilot project would be carried out with a view to implementing a compulsory certification programme in C&IT skills in the following year. To co-ordinate and implement the pilot and subsequent full certification, a seconded post of *Student ICT Skills Co-ordinator* was proposed. The Co-ordinator would be responsible for determining and recommending appropriate means of attaining the baseline; assessing students and providing training, remedial support and additional help; and administering the awarding of a Certificate. The Co-ordinator would be located in the Department of Learning and Educational Development and would report to the head of this department.

This project would be managed by a Student ICT Skills Steering Group, a cross-University group comprising of representatives from the three Faculties, ITSC, the Library, Information Systems Management, Student Services, the Department of Learning and Educational Development, Academic Quality/Regulations, and the ICT Skills Co-ordinator.

2.3. Student ICT Skills Pilot Project

These recommendations were agreed by Senate and a pilot was conducted in the academic year 1999-2000.

The pilot project was successful in achieving its original objectives and more students than the targeted number of 500 gained certificates. Positive feedback was received from students and programmes that took part. This was instrumental in highlighting some important issues that need to be addressed prior to full implementation of the programme. In light of the lessons learned from the pilot programme and in order to address the issues raised, the ICT Skills Programme was refined to include the following factors:

- a self-evaluation and streaming process should be established;
- a flexible system of delivery was required including embedded training, stand alone courses of various levels (Basic, Orientation, Refresher) and drop-in clinics;

- development of self-paced, student-centred teaching materials, in discrete units relating to each area of ICT Skills competence should be undertaken and made available for use throughout the University;
- a centrally co-ordinated, compulsory assessment procedure should be established.

At the end of the pilot project, in April 2000, a set of recommendations was presented to the University Executive and then to the Senate in June 2000. These included:

- compulsory certification should apply to first year undergraduates only for the academic year 2000-2001;
- strong recommendation that the project be centrally funded while detailed operation of the policy was still under development.

Senate agreed to a full-scale, centrally funded trial of this new system for all first year, full-time undergraduate students only, to take place in the academic year 2000-2001. A decision on compulsory certification was delayed and referred to Academic Quality and Standards Committee and Academic Policy and Planning Committee as changes were required to the University Assessment Regulations.

2.4. Full-Scale Trial

A full-scale trial ran in the academic year 2000-2001 for all first year, full-time undergraduate students. The requirement for flexibility in the approach taken to C&IT skills training resulted in a 'mixed economy' of routes being available for students to reach the baseline. The routes were:

- **Embedded training:** Students took an existing module in their first year in which all elements of the ICT Skills Baseline were embedded. Students then undertook a separate assessment in ICT skills.
- **Centrally provided training:** In programmes where there was little or no C&IT skills teaching embedded in modules, students were allocated to an appropriate level of C&IT skills training provided centrally by the Student ICT Skills Group. This training was offered in addition to existing modules and students then undertook a separate assessment in C&IT skills.
- **Exemption through prior qualification:** Students who entered the University with an up-to-date, competence-based equivalent qualification (e.g. the Glasgow University Baseline or the C&IT component of GCU Summer School) were granted an exemption.
- **Assessment only:** Some students required no additional training but were still required to undertake an assessment to demonstrate their competency in C&IT skills.

One of the most important issues raised during the pilot was the need to manage the increasing degree of variation in student C&IT skills. A self-evaluation form was developed (both paper-based and on-line versions) which all new first-year students were asked to complete before the start of Semester A. The on-line version gave students immediate feedback on areas where training was required/not required. Data from all

returned forms was fed into the student record system and made available across the University. This gave programme organisers and tutors information about students' C&IT skills on entry to their programme and allowed streaming to take place as well as training to be tailored to individual student's needs.

Another issue associated with the wide-range of skills was the need for drop-in clinics for students who had either received no formal C&IT skills training or required additional assistance. These clinics ran approximately five times a week. To attend, students were required to sign-up, indicating the area where assistance/training was required. The tutor would cover any topic, depending on demand. A clinic would run with any number of students with a maximum of 20.

To ensure that all students met the criteria for competence regardless of the training received to reach the baseline, a separate ICT skills assessment was devised. This 2-hour assessment covered all elements within the baseline. Students were required to obtain an overall pass of at least 80%, gaining at least 50% in each of the seven areas. When training was carried out by the ICT Skills Group assessment sessions were conducted at the end of the training programme. Otherwise programmes organised assessment sessions for their students that were then staffed by ICT Skills tutors. Drop-in assessment sessions were also arranged to cope with students who either missed their initial assessment session or were required to resit. There was no limit to the number of times a student could resit the assessment.

Both the pilot project and the full-scale trial were centrally funded, therefore absorbing the cost to departments. This allowed departments to choose the method of training which best suited their programmes and students. It was, however, decided that when compulsory certification would be implemented, any teaching carried out by the ICT Skills Group would be charged to the departments or faculties involved. Other aspects of provision such as assessments, drop-in clinics and materials would be top-sliced.

3. Current Situation

The overall provision of C&IT Skills Induction at GCU described below is due to be implemented in the academic year 2000-2001. The situation is, therefore, still in a state of transition. The main features will be:

	Compulsory	Optional
Credit-Bearing	Core Modules	Optional Modules
Non Credit Bearing		Drop-in Clinics Library Resources e.g. CD-ROMs Effective Learning Service
Internal Certification	Student ICT Skills Baseline	
External Certification		ECDL

Table 2: Overall Provision of C&IT Induction

3.1. Compulsory Training

3.1.1. Student ICT Skills Programme

Central to student C&IT induction provision at GCU is the Student ICT Skills Programme. This programme has been described in detail in the previous chapter, but a summary of its main features is presented below.

The main objective of the Programme is to ensure all new students have a basic set of C&IT skills which will enable them to use the University's C&IT resources and so become more effective students. From the academic year 2001-2002 all new students must achieve the GCU Certification in Basic ICT Competency before receiving an exit award. This scheme was piloted in the academic year 1999-2000 with a full-scale trial in the 2000-2001.

The baseline competency consists of several elements: basic word processing, spreadsheets, file management, email, information skills and integration of applications (see Appendix 2 for details). This set of skills can be attained through a mixed economy of training: embedded training in compulsory modules, or through the various routes offered by the Student ICT Skills Programme. Regardless of how training is received, all students are required to pass a competence-based C&IT skills assessment. This must be passed with an overall mark of at least 80%, with a 50% pass required in each of seven separate sections.

In general, the Business School and Faculty of Science and Technology students will receive training embedded in compulsory modules or through a self-teach approach; Faculty of Health students will receive training through additional short courses provided by the Student ICT Skills Group.

The C&IT skills on-line self-evaluation form, devised for the full-scale trial, informs students and their tutors of areas where training may be required. This information is compiled for each individual area of the baseline and stored in the student record system

where it is available for use across the University. This enables training to be provided only for those students who require it, and for the training to be individualised to students' needs.

In some programmes (e.g. Computing, Vision Sciences) students are provided with no formal C&IT skills training. These students are expected to already possess the required level of skill on entry, or to reach the required level through a self-teach approach, or to attend drop-in clinics.

Student-centred, self-paced teaching booklets, each covering one of the areas within the baseline have, been developed by the Student ICT Skills Group. These are used across the University for teaching generic C&IT skills within modules, on short courses, as a self-teach package and in drop-in clinics. In addition, an Information Skills web-based teaching package is used to teach use of the library catalogue and the Internet.

The cost of centrally provided training by the ICT Skills Group is charged to the relevant department or faculty. This has influenced how departments have organised C&IT skills training for their students, for example using the centrally provided training, using academic staff from within the department to provide the training, or requiring students to use a self-teach approach. Central elements of the Programme such as assessment, self-evaluation and drop-in clinics are funded centrally.

3.1.2. Compulsory Modules

Depending on their programme of study, some students at GCU will be required to take a compulsory module in which C&IT skills are embedded. These modules generally include all elements of the ICT Skills baseline, but may also extend to include more advanced C&IT skills, or other generic skills. The modules tend to be offered at level 1 and are subject specific. They are delivered by various departments within the University: e.g. Business Information Management, Psychology, and Engineering, as well as affiliated colleges, e.g. Glasgow College of Building & Printing. Examples of such compulsory modules include:

Information & Data Analysis – Department of Business Information Management (20 SCOTCAT points)

This module is part of the core Business School's framework and taught to the majority of first year Business School students. There is teaching input by two different divisions within the Business School (Business and Information Management and Economics). It consists of the baseline in ICT Skills and extends this to explore the transformation of business data into information. The module includes sources of business data, principles and techniques for statistical processing and collating of data, statistical analysis and interpretation and presentation of information.

Introductory Skills for Psychology – Dept of Psychology (20 SCOTCAT points)

This module is taught to students on the BSc Psychology programme. It enables students to acquire and develop a number of generic as well as specific psychological investigation skills. The syllabus consists of basic C&IT skills including library search skills, study skills, research methods, ethics and statistical analysis, and presentation skills.

Engineering Computing 1 – Dept of Engineering (10 SCOTCAT points)

This module is taught to all first year engineering students. It consists of basic concepts of C&IT and provides an introduction to the technical issues which affect the performance of computer systems in the real world. It includes the baseline in ICT skills, the internal structure and operation of a computer, operating systems and file management, information networks, and the use of application packages (word processing, spreadsheets and integration) to solve engineering problems.

Information Management Module - (20 SCOTCAT points)

This module is taught to all GCU students on a number of programmes with a 'Building' focus at one of the affiliated colleges, Glasgow College of Building and Printing. This module teaches students generic skills with a strong emphasis on library and literature searching. The syllabus includes word processing, report presentation, spreadsheets, use of the library, information as a business resource, effective literature searching, major referencing systems, the Internet, email and research methods.

The examples given above represent only a sample of the compulsory modules with a strong C&IT focus. There are several other compulsory modules with a strong C&IT focus, some of which may not cover any or all of the elements of the baseline.

3.2. Optional Training

3.2.1. Library Induction

The library runs short (one-hour) IT induction sessions (in Week 0) to inform students of the facilities and services available within the library. During these sessions, students have the opportunity to complete the ICT Skills self-evaluation form as well as explore some CBT software available e.g. 'Computers Don't Bite', 'Webwise', ECDL training software, and 'Tonic' (Netskills training).

There is also an Information Skills web-based teaching package on the library catalogue, databases and the Internet. This is also used as a learning resource within the Student ICT Skills Programme.

Academic Liaison Librarians offer subject-specific training sessions on information skills.

3.2.2. Effective Learning Service

This new service was developed because of concerns over student progression rates (GCU appears low in the Universities league table on this measure, although it has a rate comparable with that of similar post-1992 HEIs), and a growing belief that a service dedicated to supporting students in key areas of skill and generic learning needs is essential to tackle this problem. One-to-one tuition on basic C&IT skills is one area where assistance is offered. Students can approach this service themselves or be referred by their programme or even by assessment boards.

3.2.3. Drop-In Clinics

These clinics are offered by both the ICT Skills Programme and Library IT Support. They are designed with flexibility in mind. Students sign up for a clinic, indicating which area of support/training they require. Clinics run approximately five times a week for up to a maximum of 20 students at any clinic. Depending on demand, the clinic tutor will either offer students one-to-one tuition on specific problems or will teach the class on a specific topic.

3.2.4. Optional Modules

In some programmes, students may choose from a number of optional credit-bearing modules to allow them to specialise in a particular subject area. These modules are offered at various levels of study and include a wide range of C&IT related topics.

3.2.5. European Computer Driving Licence

The library plans to become an ECDL test centre in the near future. ECDL training material and test engines have been purchased and are installed on all the machines in the library. Uptake from students has been low, but staff are being encouraged to gain the ECDL, using their ILA to help fund this qualification.

3.2.6. Library Resources – e.g. Computer Based Training Packages

The library has a number of IT teaching resources such as videos and CD-ROMs. Other electronic resources are mentioned in section 3.2.1 above

4. Current Strategy and Policy

At Glasgow Caledonian University, student C&IT induction and training has a fairly high profile at strategic level. An indication of the level of importance placed on the use of C&IT in learning and teaching, including C&IT induction, is demonstrated by the degree of interest and involvement the Principal has taken throughout the development of C&IT induction. He is a keen supporter of C&IT Literacy and sees it as an important element of graduateness and employability for students. He was instrumental in initiating the original study of student C&IT skills provision in 1998/9, and has stated publicly that he would be keen to support a policy of movement towards an externally recognised qualification in the form of an industry/educational standard in C&IT skills.

The University recognises the need for investment in C&IT skills training for staff and students. The Strategic Plan (2000) highlights the completion of the ICT Skills Pilot Programme as one of the key achievements of the academic year 1999-2000.

4.1. Strategic Plan

In the University's Strategic Plan (2000), the effective use of C&IT in learning and teaching is a key priority area. C&IT is recognised as having the potential to enhance the learning experience as well as increasing flexibility, allowing study to be independent of time and place.

The University is committed to make greater use of C&IT-based learning materials and to increase the number of on-line modules to support off-campus delivery. The provision of appropriate C&IT systems is recognised as crucial.

The Strategic Vision includes some key objectives and targets that relate directly to C&IT:

- "Providing more opportunities for students to follow the University's programmes through different modes of study whether on campus, at work or in the home through: Use of C&IT based materials, which not only enhance learning but gives students greater choice by potentially allowing them to take certain modules on-campus, at home, at work or within their local community".
- "Ensuring that all programmes equip students with key personal and transferable skills by enabling all students to reach accredited standards in IT skills to benefit fully from the University's own C&IT-based learning and teaching".
- Enabling graduates from all programmes to earn a certificate of proficiency in IT which is recognised by potential employers".

GCU Strategic Plan (2000)

Within these objectives, key targets for 2000-2004 include the following:

- "to make IT skills certification scheme available to all full-time students and monitor uptake";

- “to increase the number of externally produced C&IT-based learning packages licensed for use in the University and to monitor their effect in teaching and learning”.

GCU Strategic Plan (2000)

A framework of related strategies supports the University’s Strategic Plan. These strategies are intimately linked and, to an extent, dependent on each other. Most of them make specific reference to student C&IT induction or training.

4.2. The Learning Teaching and Assessment Strategy

Within the context of the University’s mission and strategic objectives, the Learning Teaching and Assessment Strategy is concerned with improving the quality of learning for all students at the University. It defines the concept of the *Glasgow Caledonian Learning Experience*, placing emphasis on teaching and assessment methods that encourage the development of independent learners, with attainment standards for personal and transferable skills as well for subject knowledge. The primary aim of the Learning Teaching and Assessment Strategy is:

“to equip students with the necessary subject knowledge, skills, attributes and confidence to enter employment, undertake further study, and play a constructive and creative role in society throughout their lives”.

Learning Teaching and Assessment Strategy 2000-2004, p1

The Learning Teaching and Assessment Strategy makes specific reference to the attainment of generic skills including C&IT skills, and the Learning Teaching and Assessment Strategy Action plan for 2000-2001 reports on the progress of the University’s ‘*ICT Skills Certification*’. The Learning and Teaching Committee has, as its primary function, the requirement to monitor the progress in implementing the Learning Teaching and Assessment Strategy. The ICT Skills certification scheme is one of the key aspects of the Learning Teaching and Assessment Strategy action plan and a report from the Steering Group is submitted to each meeting of the Learning and Teaching Committee. The minutes of this committee are provided for each Senate. In principle, then, the implementation of the certification policy should be closely monitored.

4.3. The C&IT Strategy and Policy

This policy focuses on the development of infrastructure, standards, protocols and policies in C&IT. Its purpose is:

‘to provide a framework for the effective deployment, use, support and development of C&IT in the University, while maximising the return on investments in systems, personnel and equipment.’

C&IT Strategy and Policy, Development Plans 2000-2003

In describing the current position of the C&IT infrastructure, the document highlights a number of initiatives in place to equip both students and staff with the necessary skills to take advantage of the introduction of C&IT into the learning environment. This includes

reference to the Student ICT Skills Project. The University's C&IT Policy also commits to providing training to enable effective use of C&IT facilities for both users (i.e. students and staff) and C&IT support staff.

It is envisaged that successful implementation of the C&IT Strategy will lead to the re-positioning of GCU as a more innovative organisation where flexible course delivery is provided using C&IT appropriately.

4.4. Institutional Responsibility for Student C&IT Induction

A cross-university *ICT Skills Steering Group* is the body with primary responsibility for the strategic aspects of student C&IT induction and training in the University. This Steering Group is responsible to both the Information Strategy Steering Group and the Learning and Teaching Committee. The composition of the Steering Group was described earlier in section 2.2. This group is responsible for guiding and implementing University policy relating to the Student ICT Skills Programme. In terms of organisational structure, the Student ICT Skills Programme is currently located in the Department of Learning and Educational Development. However, this position is under review, and it is planned that the Programme will become part of a new integrated learning service in the near future.

An important role of the steering group has been to ensure that the faculties, schools and departments are fully aware of, and are properly prepared for, the introduction of the new policy. A crucial agreement has been reached through consultation with the Deans regarding the way in which the new training resource will be funded. The agreement provides for continued central funding of the generic aspects: the salaries of the co-ordinator and the administrator, the costs of assessment, the drop-in clinic, and all materials. However, the costs of tutor-led training, centrally provided, will be borne by the Departments. The risk involved in this arrangement is that the training that might more efficiently or effectively be provided by the centrally-trained tutors recruited for this purpose might now be provided in resource-poor Departments by their own staff. Nevertheless, the institution-wide agreement that has now been achieved over funding is a vindication of the flexibility of provision that was designed in this mixed economy approach.

5. Emerging Directions

As stated earlier, the current situation regarding C&IT induction and training at Glasgow Caledonian University is in the process of change. For the first time, a system of compulsory certification of student C&IT skills will be in operation from the next academic year 2001-2002. In addition, the locus of responsibility and provision of this service is under review.

5.1. Review of Learning Services Provision

A full review of learning services provision within the University was recently initiated by the Principal and undertaken by the Director of Learning & Information Resources with assistance from an advisory group. The aim of the review was:

“to provide a learning infrastructure that can both continue to deliver current learning support and provide coherent, enhanced support for new technology based approaches to learning”.

Learning Services Overview, 2000

The rationale behind this review was based on several factors. These included the general change in student profile and expectations, together with the increasing impact of C&IT on teaching and learning, including opportunities for initiatives such as e-learning. It was recognised that these factors could be supported through the wider use of learning technology both on and off campus. This in turn requires the provision of user-focused, effective learning support that enhances and develops the learning skills of all students. It was proposed that, in order to provide such a facility, expertise from a number of learning related services should be incorporated to form a single integrated learning service.

As a result of this review, a re-structuring process is currently taking place in the University, with the establishment of an integrated learning service combining the Library, IT Support Centre and some elements of the current Department of Learning and Educational Development.

The review identified some University-wide projects which, it suggested, would benefit from being located within an integrated learning service. C&IT skill-focused projects included:

- the Student ICT Skills Project;
- IT training for staff;
- development of information skills training for staff and students.

This new learning-focused service is scheduled for implementation in summer 2001.

5.2. Staff C&IT Training

To date, there has been no systematic provision for staff C&IT skills training. Such training has tended to be reactive, rather than proactive, and technology rather than skills, focused. As part of the Learning Services review, staff C&IT skills training has been given a higher profile, systems have been put into place to support this, and staff are being actively encouraged and supported to gain the ECDL qualification. It is also intended that short courses will soon be offered to staff. These will include general C&IT skills courses as well as courses designed to help staff effectively use the university's MIS and student record system.

5.3. Conclusions

On the evidence presented, the above account provides an encouraging picture of training in C&IT skills in GCU students. The University has moved rapidly from a situation where provision was patchy and many students were able to graduate without any guarantee that they had acquired even a minimum level of competence in using computers for standard applications. From session 2001-2 this should no longer be possible and all undergraduates in their first year of study will have to demonstrate their ICT competence.

In the immediate future it is likely that the ICT Skills Baseline, commonly agreed with a number of Scottish HEIs, will be retained. However, in the longer term, it is possible that a graduated scheme may develop where various levels of C&IT skills are considered relevant and addressed, for example C&IT skills for:

- entry to university;
- effective study;
- work placement;
- employability/graduateness.

The current Principal would support initiatives in this area from bodies such as JISC to aid in setting the curriculum; raising minimum standards; or identifying good practice through promotion of role models and best approaches.

A number of questions remain:

- Will the University's resource allocation model mean that some Departments attempt to provide training for their students to achieve the baseline when they would be better advised to use the centrally-provided training?
- Will the University's C&IT infrastructure cope with this new demand? (The scheme has already revealed inadequacies in a number of areas, including student email).
- Will the current structure be able to give the required individual support to students who are consistently failing to pass the assessment?
- To what extent can the University front-load the training and assessment so that the baseline can be assumed to have been reached by the end of the first

semester, say? (Early attainment would tie the baseline standard to C&IT skills for study purposes, rather than for employment).

In the climate of fierce competition for resources that exists in a post-1992 HEI, then the introduction of a new University-wide policy such as compulsory C&IT certification can only occur when there is both a compelling external case for change, and also the commitment of senior management. In the GCU case the Principal's personal commitment was evident from the start. It was also important that a source of central funding was available for an extended pilot which allowed a transitional phase to be developed and trialed. There was also in this case the influence of the developments at the University of Glasgow, where not only had an ancient University with over a hundred Departments managed to achieve a compulsory University-wide scheme, but even more importantly it was willing to share its experience and its materials with GCU.

In the Senate debate on the recommendation that such a compulsory requirement should be adopted for all GCU students it was crucial that a pilot project had achieved consultation across all Departments. It was therefore possible to counter opposition to the proposal by demonstrating that a majority of departments had already expressed their approval of the principle. The debate was then focused on the details of implementation and funding.

Appendices