The UK Value for Money Steering Group
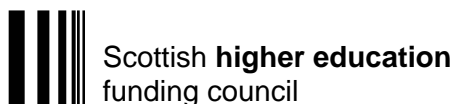
The Management of Student Administration

A guide to good practice

Department of
Higher and Further Education,
Training and Employment
for Northern Ireland

Value for Money Initiative

The Management of Student Administration

A guide to good practice

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Foreword

Student administration lies at the heart of an institution's activities. A well-managed system operating to good practice standards provides a range of benefits, for example:

- by providing key information to help institutions improve their ability to achieve their core strategic objectives;
- to reduce errors and improve student satisfaction;
- to reduce the risk of student complaints; and
- to support, through better quality information, the formulation of strategy and policy.

Student administration involves a broad range of functions often supported by complex management information systems. It is also an area that is subject to continual change as institutions respond to the many challenges facing the sector, including increasing competition and changing stakeholder expectations. We identified a desire to seek continual improvement in service provision which this guidance is aimed at helping, if you feel that your institution can benefit from being benchmarked against the sector's own view of good practice.

This report is therefore intended to help institutions to review their arrangements for student administration through comparison with generally recognised good practice and with specific developments and experiences in the sector. As such, it represents a starting point, highlighting areas with potential for improvement and for consultation and/or collaboration between institutions. More specifically, the report includes a self-assessment guide which institutions are encouraged to work through to assess their existing practices against identified good practice. This self-assessment tool can be tailored to your own institution's approach to student administration by creating an action plan in response to the answers to any of the questions you wish to answer.

The report identifies a number of important themes:

- The acquisition of suitable information systems is the greatest problem facing institutions in the area of student administration and, to date, there does not appear to be one system which meets all needs. This means that institutions have a range of choices, so effective option appraisal is critical to systems development.

- Effective project management is vital when developing systems for student administration; appropriate expertise, internal or external, should be obtained from the outset. The identification and implementation of changes to rationalise the processes of student administration should be an integral part of any project.

- The information needs of all stakeholders, both internal and external, should be established as part of the specification for systems development. This is essential for effective option appraisal.

- The approach to student administration is undergoing significant change because of a range of factors. Therefore, institutions should consult widely to explore solutions that will meet their particular needs.

The report highlights principles of good practice across a range of student administration functions. These are not exhaustive, but they do provide examples of approaches to some of the more common areas, as well as specific topics such as the development of an in-house system, partnership developments, outsourcing of the management information system and enterprise resource planning systems.

Our thanks go to those institutions who participated in this study and who have allowed their particular experiences to be included in this report.

I commend the report to higher education institutions and hope that it will help managers to develop more economic, efficient and effective systems for student administration.

Professor David Wallace
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Vice-Chancellor
Loughborough University

1   Executive summary

Background

1.1   This study of the management of student administration is the sixth in a series of studies carried out under the auspices of the UK Value for Money Steering Group. The study seeks to highlight areas of good practice in the management of student administration within the sector and offer insights into future developments to improve services and achieve better economy, efficiency and effectiveness. This report covers many areas within student administration; it is a starting point for institutions to highlight the particular areas of their own systems that require more detailed attention.

1.2   The study was conducted through visits to 11 pilot institutions to review their present practices. Numerous other institutions also contributed in areas where they had particular expertise (see Annex C). A Benchmarking Working Group was also formed to develop good practice indicators for the sector in this area.

Management information systems (section 3)

1.3   The acquisition of suitable management information systems (MIS) is the greatest problem facing institutions in the area of student administration. We identified no single system that meets the needs of all institutions. To address this problem, institutions are taking a number of approaches, including:

- purchase of 'best of breed' systems;
- in-house system development;
- partnership developments;
- outsourcing of MIS; and
- enterprise resource planning systems.

1.4   These approaches have been examined. Their key advantages and disadvantages are highlighted through case studies.

1.5   Institutions are encouraged to ensure that, whichever approach they adopt, sound project management practices are followed, drawing on the necessary level of expertise. The original specification needs to be carefully prepared, and there should be a thorough option appraisal and later, a post-implementation review. Where the necessary expertise is not available in-house, external assistance may be needed. In any event, a large commitment of time from users and customers of the system is essential if the selected system is to meet user needs.

Organisational structures (section 4)

1.6   There is no 'model' organisational structure for delivering an effective student administration function. The report examines the advantages and disadvantages of centralised versus devolved systems. The key advantage of centralised systems is that it is easier to ensure consistent

practice. However, consistency is also possible within devolved systems and there may be advantages in terms of customer services. Institutions are encouraged to define the objectives of their student administration function, to be consistent with their strategic planning objectives and to assess which model will best meet these needs.

Policies and procedures (section 5)

1.7   Institutions are encouraged to consider the different needs of the various user groups when developing their procedures. The wider availability of electronic means of communication should assist institutions in ensuring that their policies and procedures are easy to maintain and widely accessible.

Processing of student information (section 6)

1.8   The report examines key principles of good practice relating to the following areas of processing student information:

- recruitment;
- admissions;
- registration;
- student records and tracking; and
- examinations.

1.9   Institutions are encouraged to review their own practices to ensure that these key principles are satisfied.

Recruitment and admissions

1.10   In particular, institutions are encouraged to define their recruitment and admissions strategies to meet the objectives within their overall strategic plan in the most efficient way. Key principles of good practice include:

- targeting of recruitment activity;
- effective monitoring of enquiries and outcomes;
- clear focused communications with students and potential students;
- effective determination and application of admissions criteria; and
- efficient systems for controlling the clearing process.

Registration

1.11   Institutions have successfully adopted a number of strategies for streamlining registration, including fast-track/slow-track enrolment processes and provisional enrolment of continuing students in advance.

1.12   We identified no UK institutions with management information systems that will allow remote self-registration of students, but this is a likely future development. The work at Liverpool John Moores University (see section 3) is likely to result in such a system.

Student records and tracking

1.13   Wide dissemination of data to meet the needs of various users is key to avoiding duplication of effort and inefficient practices, particularly at the departmental level. Clearly this is facilitated by good management information systems. Other key principles of good practice include:

- the initial capture and maintenance of high quality data;
- capture of data once only;
- accessibility of data; and
- speed of availability of data.

1.14   Where these principles are followed, there will be a stronger sense of corporate ownership of data, which in turn encourages good maintenance practices.

Examinations

1.15   Institutions are encouraged to continue to place the students' needs first in terms of the scheduling and conduct of examinations. The procurement of invigilators is one area where many institutions may be able to save costs, particularly if they presently use academic staff for this task. Key principles of good practice highlighted include:

- efficient timetabling arrangements;
- effective security and invigilation processes;
- effective arrangements for servicing exam boards; and
- rapid and accurate production and dissemination of results.

1.16   Good management information systems are likely to produce the most substantial efficiency gains, since automatic upload of marks and exam results can substantially reduce the amount of duplication of effort between academic and administrative departments.

Internal and external reporting (section 7)

1.17   The report examines the key reporting requirements for both internal and external purposes. Institutions are encouraged to assess their information needs, defining the user groups and the key reports to be made in order to prioritise the use of human and MIS resources and avoid duplication of effort.

1.18   Wide availability of high quality data or data sets will reduce the demand to respond to ad hoc information requests.

Customer service and communications (section 8)

1.19   Institutions are encouraged to assess customer satisfaction in order to refine procedures and policies and to eliminate any wasteful practices. Service level agreements and performance indicators, although not widely used within the sector, are possible tools for defining the service levels expected and for monitoring the effectiveness of procedures.

Service level agreements can also help when comparing the cost of the service provided with possible bought in services.

1.20   Institutions are encouraged to consider the potential for increased use of electronic means of communication, and to review the nature and number of publications in this area.

Data protection issues and archiving (section 9)

1.21   This section refers institutions to the work already conducted on archiving and data protection by the Joint Information Systems Committee (JISC). It highlights the key pitfalls in terms of student administration and the application of the 1998 Data Protection Act.

Independent review (section 10)

1.22   Institutions, monitored by their Audit Committees, are encouraged to ensure that appropriate coverage of student administration is included in the internal auditor's audit needs assessment and value for money strategy. Follow up of any resultant recommendations and continuing periodic review of this area are also encouraged.

1.23   Other approaches to review include internal quality reviews, peer reviews and reviews by external agencies.

Self-assessment guide (section 11)

1.24   As part of this study a working group was established to develop benchmarks for student administration. The group determined a series of objectives and then prepared **self-assessment** questions, designed to identify good practice.

1.25   Institutions are encouraged to use the self-assessment questions to review their own systems. Numerous examples of good or innovative practices are highlighted to help institutions identify ways to improve their own practices.

1.26   The self-assessment questions have also been prepared as a stand-alone document available on the HEFCE web-site under 'Publications' reference 01/27.

2   Introduction

2.1   The role of student administration within an institution needs to be clearly understood. This section considers the following issues:

- the definition of student administration;

- the stakeholders;

- the objectives of student administration; and

- the role of management information systems in student administration.

Definition of student administration used in this study

2.2   Although the key functions of student administration will be common to most higher education institutions (HEIs), a wide variety of organisational structures exists. In defining the scope of their student administration function, institutions therefore tend to produce widely disparate descriptions.

2.3   The functions falling within the scope of this study are set out in Figure 1, with other key functions which may fall under the definition of 'Registry' responsibilities in some institutions.

Figure 1 - Student Administration Functions
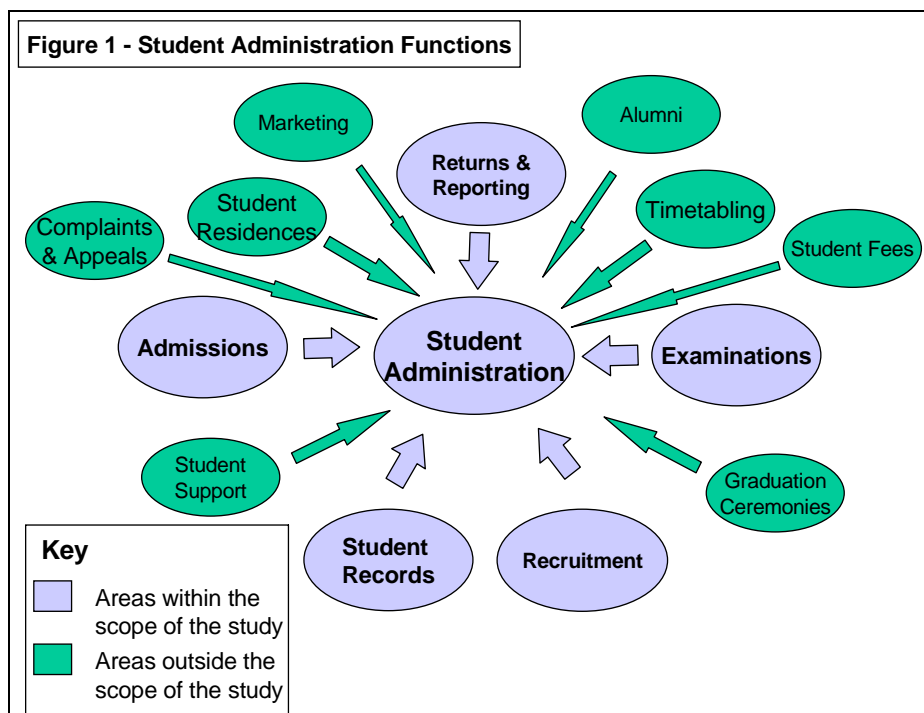
Defining stakeholders

2.4 To define clearly what is required of the institution's student administration processes, it is useful to identify the key stakeholders of the system. The stakeholders include the following:

Within the institution:

- **students** – widely considered to be the most important customers, students are affected either directly or indirectly by every aspect of student administration;

- **staff** – as users of the data produced, and more widely as stakeholders in the institution;

- **senior management** – as users of the data produced, as stakeholders in the institution and as those responsible for implementing the institution's corporate and value for money strategies;

- **governors** – again as users of the data produced and as the custodians of value for money within the institution.

Outside the institution:

- **the Universities and Colleges Admissions Service (UCAS), feeder institutions and direct applicants** – who expect the admissions system to be efficient and fair;

- **funding bodies and organisations** – who rely upon the data produced to provide the correct funding to the institution or to support applications for funding;

- **the Higher Education Statistics Agency (HESA)** – as customers for the receipt and analysis of data;

- **employers** – who require information about prospective employees and may act as partners for some activities; and

- **others** – such as government, local education authorities, quality agencies, student loans companies, the public, potential students, parents.

2.5 This list is not exhaustive, and institutions may be able to define additional stakeholders relevant to their particular circumstances.

2.6 In evaluating its systems an institution will need to consider the requirements of all of its stakeholders, and at times will need to balance conflicting priorities in the interest of the institution's overall strategy.

Objectives of student administration

2.7 At an early stage in evaluating their own student administration function, institutions will need to establish what the systems are seeking to achieve. It will then be possible to evaluate the existing systems to establish how well they support the underlying objectives. Some objectives will be common to most HEIs; others may be specific to individual institutions.

2.8   As part of the study, a Benchmarking Working Group was set up, largely comprising nominees from sector representative groups, to produce good practice indicators for student administration. The group established a series of key objectives for student administration, against which it then developed self-assessment questions which could be used by institutions to evaluate their own procedures.

2.9   The results of this work are set out in section 11 of this report; the key objectives were as follows.

- Students are recruited and admitted in accordance with appropriate policies, regulations and business objectives.

- Data are collected and recorded accurately.

- Systems have been established to track students through their lifetime at the institution.

- The conduct of examinations is in accordance with the needs of the institution.

- Student assessment is in accordance with the institution's regulations and procedures.

- Internal and external reports are produced in an accurate and timely manner.

- The quality of service to students, staff and other customers is appropriate.

2.10   Institutions may wish to use these objectives when undertaking their own self-assessment, or they may wish to modify and add to them as applicable.

The role of management information systems in student administration

2.11   At the outset of the study it was clear that many of the difficulties experienced by HEIs in organising their student administration in an economic, efficient and effective way are the result of MIS deficiencies.

2.12   A number of institutions had been awaiting the outcome of the Management and Administrative Computing (MAC) initiative. This had been expected to provide MIS which would meet the developing needs of HEIs. Once it became clear that this initiative was not likely to deliver the expected solutions, many institutions had to address the deficiencies of their existing systems in isolation.

2.13   Some of the solutions adopted are highlighted later in this report. The report does not seek to recommend any particular system since institutions will need to consider fitness for purpose, and no one system is likely to suit the needs of all institutions. Further, this is an extremely fast moving area and any recommendation would quickly be out of date. However, the report does emphasise the elements of good practice in identifying the best solution.

2.14   The UK Value for Money Steering Group has already issued a report on Information Systems and Technology Management (HEFCE 98/42 and 98/43). This report does not seek to replicate that work, but concentrates on matters which may enable institutions to benefit from the experiences of others.

3   Management information systems

Introduction

3.1   The management information systems in place have a fundamental impact upon the way institutions manage student administration. Indeed, many of the difficulties which institutions encounter, and the reason they saw this area as a high priority for a value for money study, are due to the lack of readily obtainable, affordable systems which fully meet their needs. This report highlights the different approaches taken by institutions to find a solution.

Specifying needs

3.2   The system specification determines the shape and fit of everything that follows. Before embarking on any particular solution, institutions need to specify clearly what they wish to achieve from a new system. There are many examples of good practice, including several institutions that have employed specialist consultants to help prepare the specification.

3.3   Whether an institution decides to employ specialist help or not, this is not a task which can simply be delegated. A great deal of involvement from all the parties likely to be affected by the new system will be required. Many of those who have been through the process emphasised that the amount of time spent specifying needs should not be underestimated and should not be curtailed in any way. Elements to be considered in the development of any good specification include the following:

- the overall strategic objectives, consistent with the institutional strategic plan, which the new system is intended to address;

- the availability of in-house expertise and whether external support is required to prepare the specification;

- a clear distinction between which elements of the new system are essential and which are desirable;

- detailed functional requirements; and

- detailed technical requirements.

Option appraisal

3.4   Having specified its needs, an institution will need to match the specification to the options available. A number of institutions have sought specialist help with this stage of the process since, in such a fast developing area, the range of options may not be known in-house.

3.5   In many cases a two-stage option appraisal has been adopted, by initially determining the approach and then evaluating the various options within the approach. The appraisal should be fully documented. In view of the cost, the eventual decision is likely to be taken at the highest levels within the institution, probably with senior management taking a recommendation to the institution's governing body. HEFCE has
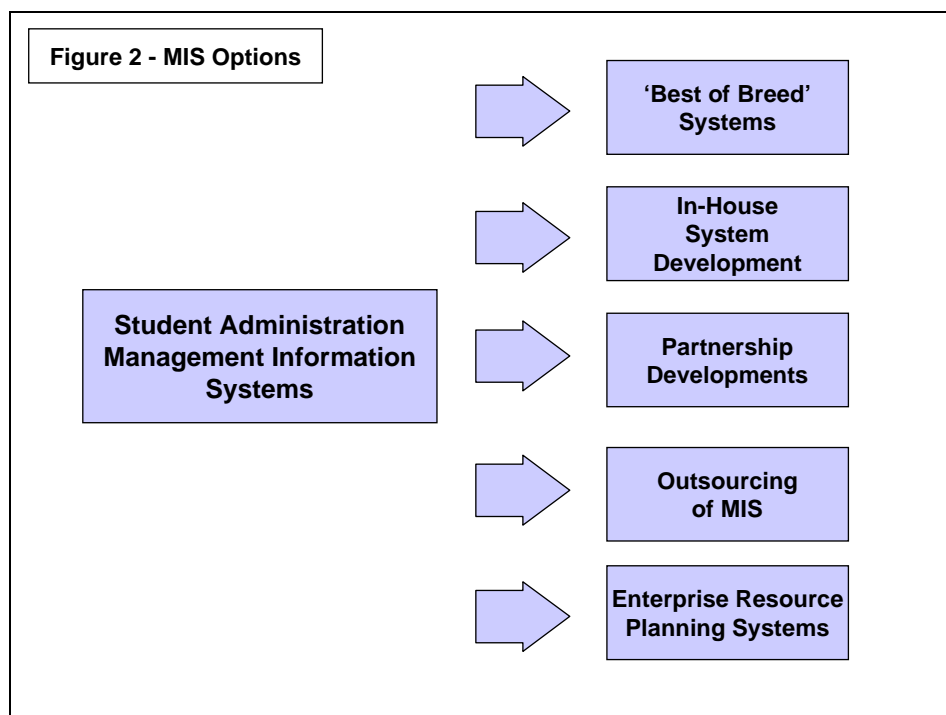
issued guidance on investment and option appraisal which should be referred to for further information on good practice (www.hefce.ac.uk, publications ref 99/21, 'Appraising investment decisions').

Post-implementation review

3.6 Post-implementation review of the option eventually adopted is also important to ensure that the institution understands the extent to which its original objectives have been achieved. This will enable the institution to assess whether any further action is required and will also inform the approach to future systems implementation.

Approaches to obtaining management information systems

3.7 The approaches to meeting institutions' MIS needs identified during this study are illustrated in Figure 2 below. Clearly the range of options actually available to institutions may be more limited than this. In particular, small institutions are unlikely to find in-house developments viable or practicable unless some sort of partnership or consortium arrangement can be organised.

Figure 2 - MIS Options

Student Administration Management Information Systems

- 'Best of Breed' Systems
- In-House System Development
- Partnership Developments
- Outsourcing of MIS
- Enterprise Resource Planning Systems

3.8 Examples of these approaches are set out below. This report does not seek to recommend any of the approaches as being better than any other, other than to highlight the principal advantages and disadvantages. The key success factors depend on the approach taken and in particular on the use of sound project management practices. The risks attached to each option considered should be carefully assessed as part of the appraisal process.

Purchase of 'best of breed' packages – St Andrews University

3.9   St Andrews decided that the most appropriate way to obtain an MIS would be to buy a commercial package. They chose the Dolphin system and consider that it largely suits their needs. The system has been in operation since Easter 1999, and has not been adapted in any way. However, the university has developed its own data warehouse whereby data sets are downloaded and made widely available via the web, subject to the requirements of the Data Protection Act.

Approach to acquisition

3.10   The key success factors in evaluating and acquiring the system were:

- wide consultation with the users through a working group;

- the development of a clear specification of the institution's operational requirements;

- the development of a costings grid covering software, consultancy, training, maintenance and support to enable proper comparison of costs, a clear indication of the cost of any increased functionality, and a basis for negotiating with suppliers;

- the development of an extensive evaluation questionnaire consisting of 111 different tasks, covering all aspects of the student records function, which was used to compare the systems evaluated through physical demonstrations; and

- visits to other institutions already using the system to obtain practical advice and see the system in operation.

Advantages and disadvantages of a commercial system

Advantages	Disadvantages
Relatively quick.	The system purchased will be the 'best fit' of those available and may not have the full range of functionality desired by the institution.
System support likely to be available.	
Ease of evaluation – system can be demonstrated and reference sites are likely to be available.	

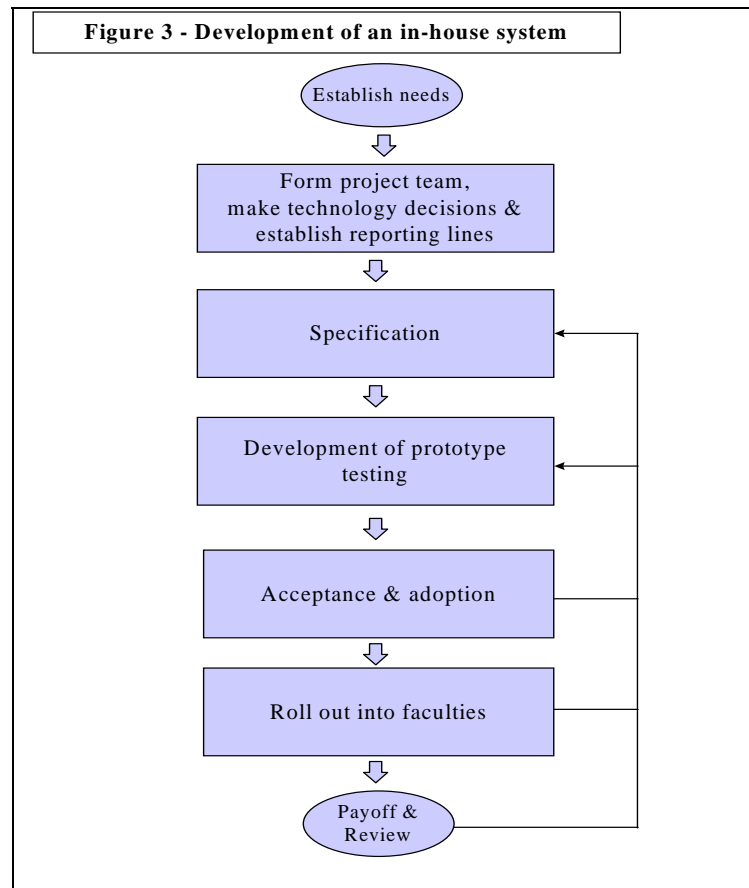**Development of an in-house system – Lancaster University**

Background

3.11   Lancaster University chose to develop its own in-house system following a recognition that the existing system was unable to cope with a rapid growth in student numbers and could not offer the additional functionality which the university required, for example, on-line access by departments. Like many universities, Lancaster had been looking to the MAC initiative to address its concerns and, as such, tolerated an outgrown and outdated system for longer than it might otherwise have done. The system developed is now up and running although a number of further refinements are planned.

The Lancaster system

3.12   The integrated student and course administration system which was developed, 'LUSI', models the student administration processes from the initial enquiry to the institution through to alumni activities. The academic courses that the student pursues are likewise managed from initial proposals through approvals and modifications to the laying down of courses. Students, their courses, and all the related processes that manage these throughout their respective lifetimes are fully integrated. Information is time-related, allowing historical and future views of all data items and their relationships.

3.13   The system is continuing to be developed with the goal that data should be captured once and only once, and should then be available to the whole university in line with individual needs. The university would also like to develop web interfaces, which would facilitate developments such as on-line registration for students and browse facilities for students and staff.

Approach to development

3.14   Lancaster considered a number of options before deciding to develop its own system, in fact there was a reluctance to do so if a suitable package could be acquired. The key stages in its approach are illustrated in Figure 3.

Figure 3 - Development of an in-house system

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                    ┌──────────────┐
                    │Establish needs│
                    └──────┬───────┘
                           ⇩
              ┌────────────────────────┐
              │   Form project team,   │
              │ make technology decisions & │
              │  establish reporting lines  │
              └────────────┬───────────┘
                           ⇩
              ┌────────────────────────┐
              │     Specification      │◄─────┐
              └────────────┬───────────┘      │
                           ⇩                  │
              ┌────────────────────────┐      │
              │ Development of prototype │◄────┤
              │        testing         │      │
              └────────────┬───────────┘      │
                           ⇩                  │
              ┌────────────────────────┐      │
              │  Acceptance & adoption  │──────┤
              └────────────┬───────────┘      │
                           ⇩                  │
              ┌────────────────────────┐      │
              │  Roll out into faculties │─────┤
              └────────────┬───────────┘      │
                           ⇩                  │
                    ┌──────────────┐          │
                    │   Payoff &   │──────────┘
                    │    Review    │
                    └──────────────┘
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3.15   Figure 3 illustrates the iterative nature of the later stages of the project. In particular, it shows the close consultation with users, through a project group which met on a weekly basis, and the extensive testing carried out at each stage. This meant that the specification could be adapted, within reasonable parameters, as the system developed.

3.16   Some of the key success factors in the approach adopted were;

♦   full consideration of the options available, through an external consultant's report;

♦   allowing sufficient time to specify in detail the university's needs and the 'wish list';

♦   wide, and ongoing consultation with the users of the system throughout the lifetime of the project;

♦   extensive testing at all relevant stages;

♦   high-level commitment and involvement – a Steering Group with senior management team representation was formed and the project manager was the Head of the Student Registry; and

♦   the right technical team – Lancaster had recently restructured its MIS function and had access to a head of MIS and staff with experience of this type of development.

Advantages and disadvantages of in-house development

Advantages	Disadvantages
The end product - a system designed to meet the specific needs of the institution.	New developments have inherent risks. Therefore there is a need for appropriate levels of project management and technical expertise.
	Need for large amounts of staff time to develop the system, including technical staff, senior management and users.
	Length of time to develop.
	Need to provide own system support. Vulnerability to staff changes will need to be considered.

Partnership developments - Liverpool John Moores University

Background

3.17   In 1997, the university began to re-examine its approach to student administration as part of a 'transformation project'. This project was initiated to review current areas of activity, to recommend ways of improving the quality of the institution's work, and to shape its future identity. Recommendations were made around the following key themes:

- the learning community;

- research, development and enterprise;

- the student environment;

- learning and teaching;

- institutional systems and processes; and

- consultation and implementation.

3.18   Recommendations covered both the nature and character of the university. For example one of the recommendations relating to the student environment was that: '*All existing computer-based information systems should be supported by a single database. Students should be allowed to update, where appropriate, their own records (eg address changed). Secure read-only access should also be provided to all personal information*.' The project also recommended a fundamental review of institutional systems and procedures.

3.19   The student administration systems in place were not adequate to meet the developing needs of the institution or to embrace the types of changes envisaged under the transformation project. In particular, there was a fragmentation of administration systems which was seen as counter-productive to the future aims of the university.

Approach adopted

3.20 A functional specification was prepared for a student administration system and a number of possible approaches were identified. To meet the cultural objectives identified by the transformation project the university was looking to systems of the type operating within the US and Australia. At that time two software companies were identified who were seeking development partners within the UK to roll out the systems they were currently operating elsewhere. Following consideration of both options the University entered a development partnership with Oracle. Oracle had already developed a system now operating in at least eight universities in Australia and were seeking to customise their system within the US and the UK.

3.21 Key features of the approach adopted were:

♦ as development partners, the university obtains a customised system at an advantageous price. Clearly it also carries a share of the risks inherent within any new development;

♦ the concept of the system is a student 'self-service' approach. Students will have wide access to their own data (with suitable controls in place) and the ability where appropriate to amend and maintain it;

♦ as a partnership development, the university has access to a proven project management methodology and external expertise; and

♦ 'people issues' have been put first; communication and training are an integral part of the project management system adopted.

3.22 The project started in February 2000. Staff responsible for research student administration planned to use the system from autumn 2000. The admissions staff planned to use it during the 2000-01 recruitment cycle, and other areas of student administration will begin using the system between August and December 2001.

Advantages and disadvantages of this type of partnership development

Advantages	Disadvantages
Ability to draw on external project management experience.	As with any new development, there is an inherent risk associated with the project, although sound project management practices are being adopted to minimise this.
Student-centred approach. Students will have controlled access to their own data via the internet.	
System customised to meet the needs of the institution.	

Outsourcing of the MIS function – University of Durham

Background

3.23   The University of Durham undertook a pathfinder PFI project for the university's registry systems and other administrative functions. As a result of this process, management information support has been contracted out and is provided by an external company.

Approach adopted

3.24   The university identified the following key pointers from its experiences of outsourcing the MIS:

- the process of considering alternative methods of service provision is valuable in itself as it requires institutions to define how they wish to operate. However, it is important not to underestimate the amount of time and the level of detail required to specify a system effectively;

- the service provider needs to have a good understanding of the academic culture in general, and the nature of the specific institution in particular;

- when outsourcing a service, the external financial commitment is known in advance. But it is important to take account of in-house staff time spent in managing the outsourced service, as this is likely to represent a significant cost to the institution; and

- 'casual' users, for example within academic departments, may find it difficult to adapt to a sophisticated new system and procedures, and significant investment in staff training is required to facilitate the transition.

Advantages and disadvantages of outsourcing MIS

Advantages	Disadvantages
By outsourcing a service, considerable risk can be removed from the institution, and considerable benefits may be gained from having access to a wide range of external technical expertise.	The service levels are defined in advance. As with other methods of provision, changes in requirements may be costly.
The institution can keep control over the service provider by including formal terms and conditions in the contract, including financial penalties for non-delivery or late delivery.	As direct control is not exercised over the way the service is delivered, a certain amount of flexibility may be lost.
All training requirements are met by the provider.	

Enterprise resource planning systems – University of Newcastle upon Tyne

Background

3.25   Enterprise resource planning systems are in the process of being adopted by several UK institutions. Their key feature is that they operate as a single system covering all aspects of the institution's administration – finance, estates, personnel, and so on. As such, there is no need to develop interfaces between the key systems, and information once input is available to all who need it. At present such systems *incorporating student administration modules* are not available to buy 'off-the-shelf'. The development partnership with the University of Newcastle upon Tyne and SAP (a company that sells business software) is expected to change this.

Sector experiences

3.26   A number of institutions are in the process of implementing the SAP system for areas such as finance and human resources. The system does not have a student administration module but the University of Newcastle upon Tyne is presently acting as a pilot site to develop one.

3.27   Enterprise resource planning systems have the potential to support much good practice across all aspects of university administration: they facilitate consistent practice, reduce inefficiencies in terms of duplication of effort, and facilitate the production of good management information which can be used to review current practices. However, in order to meet their own needs, many UK HEIs are implementing such systems piecemeal, which dilutes these advantages.

Advantages and disadvantages of an enterprise resource planning system

Advantages	Disadvantages
Information is consistent since it need only be input once.	The systems are complex and significant amounts of training are required if users are to make best use of them.
The ability to produce management information by linking data items.	Implementation is across all administrative areas. Any teething or ongoing problem will be widely felt.
There is only one system to support and maintain.	Setting up such a system requires considerable expertise since there are many options for data structures, etc. The options chosen affect functionality and as such need to be carefully tailored to the institution's needs.
There is no need to develop interfaces between various administration systems.	Substantial investment is required if all administration systems are replaced at one time. Similarly an exit strategy may be more difficult to formulate in future.

Interfaces with other systems

3.28   Some of the systems described above will clearly reduce or eliminate the need to develop separate links between systems. For example, enterprise resource planning systems are intended to cover the whole area of MIS and as such avoid the need to duplicate data.

3.29   Where such systems are not in place, problems may arise in terms of the need to duplicate input, or transfer data from one system to another. The link between the finance system and student administration system is of particular concern because of the need for close liaison for managing student debt.

3.30   Mechanisms introduced by institutions to address some of these difficulties include:

- manual reconciliations between systems (very time-consuming);

- access by finance staff to student administration systems (and vice-versa); and

- regular transfer of data and exception reporting.

3.31   Clearly automated links offer by far the best solution, and some institutions have achieved this even where systems are not readily compatible. For example, one institution has set up a system whereby standing data such as student addresses are updated automatically on the finance system from the student records system. This has had particular benefits for the collection of student debts.

4　Organisational structures

Introduction

4.1　UK HEIs have a variety of organisational structures for student administration. No single structure represents a 'model' for the sector. However, the most effective structures have a number of common features:

- clear reporting lines to the highest levels of management;
- defined objectives and terms of reference;
- careful consideration of the level of devolution of the service;
- management of workload peaks;
- high quality management information;
- review procedures; and
- accommodation and estates issues.

4.2　These areas are explored in more detail in this section.

Reporting lines

4.3　Input at the highest levels of the organisation is required for this core function. Institutions have recognised this, with student administration functions usually reporting to the highest levels of senior management.

Defining objectives

4.4　Defining the objectives of the function will help to determine the most suitable organisational structure to deliver them. Examples of some possible objectives are given in section 11 of this report.

Largely centralised v largely devolved systems

4.5　There is no single 'right' answer as to the appropriate level of devolution: institutions will need to assess the suitability and cost effectiveness of any proposed system individually. The general picture in the institutions visited as part of this review was of largely centralised systems. Some of the key benefits of centralisation and devolution are set out in the following table.

Benefits of centralised and devolved systems

Largely centralised	Largely devolved
Consistency in approach across the institution. Leading to benefits in terms of: • data quality; • security of data; and • compliance issues (eg data protection).	Approach may also be consistent, but mechanisms need to be in place to ensure that policies and procedures are in place and are effectively communicated and operated.
Possible economies through avoiding duplication of effort.	Ability to react to local circumstances.
Single location may be able to offer a broader range of services and a wider range of specialisms.	Physical locations may be more convenient to customers.
Mechanisms may also be introduced to 'personalise' a central service, such as allocation of named contacts for various departments.	Facilitates provision of a more personal service.

Managing workload peaks

4.6   Student administration experiences significant peaks in workload. Institutions have sought to address this via:

- multi-skilling of staff to enable them to assist at peak times. This also has advantages at other times of year to allow staff to cover each other's work. Furthermore it can be a motivational tool to promote staff development;

- use of staff from other departments at peak times;

- use of temporary staff; and

- provisional enrolment or enrolment in advance, thereby reducing the peak.

Review procedures

4.7   Some HEIs now conduct cyclical reviews of their administrative functions through mechanisms such as internal quality reviews and process review groups. Review procedures are considered in greater detail in section 5.

Accommodation and estates issues

4.8   Institutions have found that the nature of their estate can have a significant impact upon the way student administration is organised. Institutions generally apply the principles that points of contact with students should be:

- easy to find;

- open, approachable and welcoming; and

- well known to students in terms of the services offered.

4.9 The physical structure of buildings can represent a significant challenge to at least the first two of these objectives, although institutions seek to mitigate problems through good signage and communications.

4.10 One institution visited had taken the opportunity to specify the type of space it needed within a new building. It has adopted a 'one stop shop' approach whereby students may, at a single location, deal with financial matters, the majority of academic administrative matters including handing in coursework, and other administrative tasks such as changes to their standing data.

5 Policies and procedures

Introduction

5.1 The level of formalisation of policies and procedures varies between institutions, although it is widely accepted that they should be in place. This section discusses what should be covered by the policies and procedures, and sets out some of the barriers to developing them and how some institutions have overcome these.

Development of policy

5.2 Policies for student administration will largely stem from an institution's academic and administrative objectives. These in turn arise from the strategic planning process, taking account of the views of all the institution's stakeholders. Suitable representation on committees involved in policy development will be required to ensure appropriate input from the student administration perspective. In practice, this generally already occurs in institutions.

What should the procedures cover?

5.3 The content and scope of the procedures will largely depend upon the institution's needs. The table below illustrates the level of detail likely to be required by some of the key users and operators of systems.

5.4 Where this approach has been adopted within the sector it has been facilitated by publication electronically, which means that individuals can easily be directed to relevant procedures.

Development of procedures

5.5 Some of the main issues which institutions face in producing and maintaining procedures are highlighted below:

- the time required to initially produce procedures;
- the need to maintain the procedures;
- training; and
- communication of procedures.

These are discussed in the rest of this section.

Purpose and users of procedures

User	Likely requirement
Customers of the system.	The purpose of the system and detailed instructions from a user's perspective.
New, temporary or inexperienced staff operating the system.	Detailed desk instructions, plus an overview of the objectives of the system and the procedures in place to achieve them.
Existing staff operating the system.	Detailed desk instructions, well indexed to facilitate occasional access, plus an overview of the objectives of the system and the procedures in place to achieve them.
Operational managers.	An overview of the objectives of the system and the procedures in place to achieve them, plus access to detailed desk instructions.
Senior management.	An overview of the objectives of the system and the procedures in place to achieve them.

Investment of time

5.6   Where departments are constantly responding to more immediate demands, development of procedures can easily remain tomorrow's priority.

5.7   However, institutions which have invested the initial time in producing procedures report the following benefits:

- consistency of practice is promoted, improving data quality;

- consistency of practice and the existence of formal procedures reduces the scope for complaints and assists in any defence against complaints;

- training time is saved as new and existing staff have a source of reference for queries; and

- the development of procedures may identify inefficient practice or duplication of effort.

5.8   Approaches to the initial production of the procedures vary. Some institutions feel that the procedures need to be developed by the staff operating them, within a predefined framework which ensures consistency in approach. Elsewhere, the responsibility has been given to one dedicated member of staff. This has the advantage that the person tasked with the work is less likely to be distracted from it by conflicting

priorities, and also gives an overview which could lead to a reduction in inefficient practices.

5.9　　Achieving these benefits does depend upon ensuring that the procedures are working documents which are up-to-date and easily accessible.

Maintenance of procedures

5.10　　Procedures need to be up-to-date. The frequency of review should be established in advance and a mechanism for this determined. It may be more constructive and productive if the review of procedures coincides with a general review of the processes to seek enhancements to them. This practice has been adopted successfully by at least one institution within the sector.

5.11　　Recognised quality standards such as ISO9000 provide a framework for the preparation and maintenance of procedures and mechanisms for confirming compliance, although at present such standards are not widespread within the sector. Internal audit will also have a role to play since its reviews of this area should include an assessment of the adequacy and effectiveness of procedures.
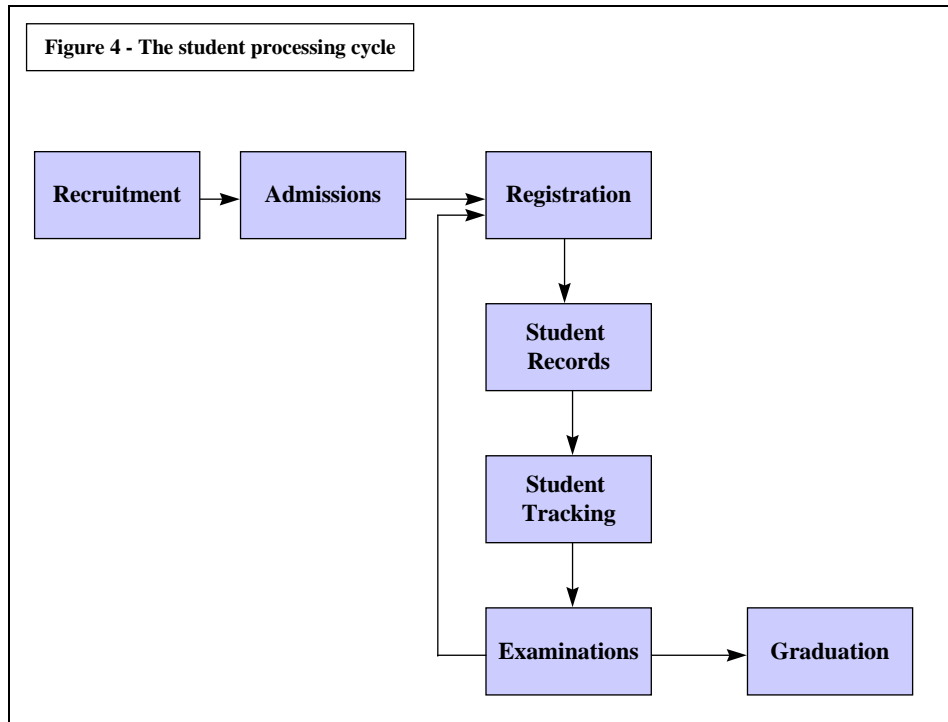
Communication and training

5.12　　If the procedures are to be working documents they must be readily accessible. Electronic communication facilitates this, particularly where the procedures can be made available over the internet or intranet. If this is set up in a logical and helpful format, staff (and other users where applicable) will have easy access to the procedures and will be assured that the most up-to-date version is being viewed. Alternative approaches include the use of loose-leaf handbooks, so sections can be updated without requiring a complete reprint.

5.13　　The induction of new staff should include an introduction to the procedures relevant to their role and general awareness training of the procedures for other areas.

6   Processing of student information

Introduction

6.1   This section focuses on the main areas of processing information on students as illustrated in Figure 4.

Figure 4 - The student processing cycle

```
Recruitment → Admissions → Registration
                                │
                                ▼
                          Student
                          Records
                                │
                                ▼
                          Student
                          Tracking
                                │
                                ▼
                          Examinations → Graduation
```

6.2   The key elements of good practice relating to each area are highlighted below. Section 11 of this report provides a framework for institutions to assess their own systems in many of these areas. It also illustrates how institutions have put some of the principles into practice.

Student recruitment

Principles of good practice

6.3   The following principles underpin effective recruitment:

- a clear link with the institutional strategy;
- targeting of recruitment activity;
- effective monitoring of enquiries;
- provision of high quality and timely information;
- effective monitoring of outcomes; and
- clear, focused communication with potential students.

Institutional strategy

6.4   The key driver in determining an institution's recruitment policies should be the institutional strategy. Institutions will need to have mechanisms to translate the strategy into policy and procedures, for

example corporate and operational planning structures, suitable committee structures and performance targets.

Monitoring and analysis of enquiries and intake

6.5   Logging enquiries facilitates production of management information, which can help institutions to direct recruitment effort and to assess the effectiveness of its present policies. Appropriate management information systems are likely to be required to carry out logging cost-effectively. Use of the internet for handling enquiries also facilitates such analyses, since enquiries can be requested in a pre-determined format.

6.6   Capture of this information requires a co-ordinated approach; institutions will either need to route all enquiries through a single location or ensure that all of those likely to deal with enquiries know what information they must capture and have a suitable mechanism for doing so.

6.7   Various mechanisms for this are already being adopted by the sector, from sophisticated call centre logging to the use of standard enquiry forms.

6.8   Comparison of the source and nature of enquiries with the eventual intake can help an institution to assess the effectiveness of its current student recruitment strategy, and to redirect its efforts if necessary. A case study by the American Association of Collegiate Registrars and Administrative Officers (AACRAO) highlighted the savings which could be made from acting on this type of analysis (www.aacrao.com/pubs/po-005.htm). The case resulted in savings of almost 14 per cent, comparing spend per student enrolled before and after the study.

Targeted recruitment activity and clear communication

6.9   Some of the more innovative recruitment strategies for home students include:

- the use of well located higher education shops offering a range of information and advice on access to HE;
- mentoring of pupils in schools;
- use of the internet;
- student tutor schemes in schools;
- informal visits and open days;
- employment of student ambassadors to visit schools and assist at open days and other recruitment events;
- consultation with the Students Union on the design of the prospectus and other recruitment literature;
- appointment of an access and participation officer;
- move towards more flexible modes of study;
- surveys of the reasons for students choosing the institution;

- guaranteed place schemes for local applicants;

- surveys of students rejecting the institution;

- summer schools for potential students; and

- schools' partnership and liaison programmes.

6.10   Clearly the package of mechanisms adopted will depend upon the strategy which the institution is pursuing and how effective the various methods are assessed to be.

Admissions systems

Principles of good practice

6.11   The following factors are necessary for effective admissions procedures:

- seamless and efficient links with the recruitment and student records processes;

- efficient systems for controlling the clearing process;

- careful management of overall student numbers; and

- effective determination and application of admissions criteria.

Interfaces with recruitment and student records

6.12   The MIS interfaces will clearly depend upon the systems which the institution has available. The most efficient systems are those which avoid duplication of effort through links to any general enquiry system and the ability to download UCAS data seamlessly.

Clearing and management of overall student numbers

6.13   Target numbers are generally based upon the funded student numbers, adjusted to suit the strategy of the institution and the teaching staff available. Institutions also need to build in certain assumptions, for example on drop-out rates, which can be estimated on the basis of previous years. As students accept offers of places, running totals can be maintained.

6.14   The degree of reliance upon the Clearing system to achieve target student numbers varies widely between institutions. Not surprisingly, those with the heaviest reliance on Clearing tend to have the most co-ordinated and efficient systems to manage it. Key principles of good practice associated with the Clearing process are:

- close control of total student numbers – probably by maintaining running totals and using trend analysis, modelling and comparisons with previous years;

- clear communication with admissions tutors regarding target numbers;

- availability of key staff to counsel potential students at the critical times; and

- ability to respond promptly to enquiries and, where appropriate, to re-direct students to alternative courses where there may be suitable vacancies.

6.15   Some institutions set up a single location for the main period of the Clearing process. This facilitates the rapid exchange of information, enabling numbers to be monitored closely and students to be referred across the various disciplines. Judgements still need to be made regarding student numbers: potential students will frequently contact a number of institutions at this time, and institutions are only reasonably certain that a student will actually arrive when the Clearing form is received.

Admissions criteria

6.16   Institutions base their admissions criteria on a number of factors, including:

- market forces (demand for courses and supply of students);

- applicants' ability to cope with the programme of study to be undertaken;

- assumptions about acceptance rates;

- any widening participation objectives; and

- other strategic aims of the institution.

6.17   Institutions generally seek to apply their criteria in a manner which promotes equality of opportunity. Pre-defining clear criteria supports this objective, although academic judgement will still be required in less straightforward cases, for example applicants with non-standard entry qualifications and mature students, where account may be taken of relevant experience and interviews to assess the student's potential.

6.18   There is presently a range of practices regarding who makes admissions decisions. This is explored further in section 11 of this report.

Registration

Principles of good practice

6.19   The registration process is often one of the first points of formal contact between new students and an institution's administration. Institutions seek to streamline the process as far as possible both to minimise inconvenience and time spent on the process by students, and optimise efficiency for the institution.

Streamlining of the registration process

6.20   The registration process is widely expected to move towards practices in the US where students self-enrol over the telephone or the web. UK HEIs do not generally have the technology to support such an approach. However, many see this as a medium- to long-term objective. A case study of Liverpool John Moores University's approach is set out in section 3 of this report.

6.21   Some of the techniques adopted by HEIs to improve registration are:
  • use of fast-track/slow-track processing whereby 'problem' students are sidelined to avoid holding up the majority of straightforward cases;

  • student self-enrolment;

  • pre-registration or provisional registration of continuing students;

  • 'one stop shop' registration dealing with financial matters, basic student records, academic counselling and course choices;

  • staffing measures including:
    – briefing meetings;

    – post-event review meetings;

    – use of temporary and floating staff and employment of students; and

  • fixing the time of attendance for various cohorts of students.

6.22   The effectiveness of these techniques will depend upon the needs and culture of the institution. For example, one institution found that queues were significantly reduced by setting fixed times for students to enrol, but another found this less effective since a significant number of students fail to attend formal enrolment at all. These students require a disproportionate amount of time to chase up and, therefore, the institution does not wish to turn away any who arrive for enrolment outside of their allotted time.

Student records and student tracking

Principles of good practice

6.23   Good practice within student records and tracking was characterised by:

- wide dissemination of data;

- high quality of data captured and maintained;

- speed of availability of data; and

- broad ownership of data.

Dissemination of data

6.24   Where data are not widely available, institutions may spend a disproportionate amount of time responding to ad hoc queries and data requests. Some institutions make systems available selectively to academic and other user departments. Other institutions have developed data warehouse facilities, whereby data sets are extracted and made available over the internet to those who need them.

Data quality and ownership

6.25   Corrections to poor quality data can take a disproportionate amount of time to deal with. Poorly structured data also inhibits access and use by lay people since it is difficult to be sure that the data have been extracted completely and correctly. The benefits from improvements in data quality may take some time to be realised since data relating to specific students will span a number of years.

6.26   Availability of data on a timely basis is also an issue in many institutions, for example where the input of enrolment data is slow and academic staff need class lists to plan their work. Failure to provide information on time often leads to separate record-keeping within academic departments and consequently a lack of 'ownership' of central data, which reduces the likelihood that amendments to data will be reported.

6.27   Most institutions do not at present allow routine access by students to data, other than by providing audit lists where individuals are required to confirm the accuracy of their own data. In a number of systems in overseas universities, particularly in the US and Australia, students maintain their own standing data and are able to select courses and programmes of study via the web. Although many UK institutions may see this as a long-term objective, systems are not currently in place to support this approach.

Examinations

Principles of good practice

6.28   The following factors were considered to be good examination practices:
- efficient timetabling arrangements;
- effective security and invigilation procedures;
- effective arrangements for servicing exam boards; and
- rapid and accurate production and dissemination of results.

Conduct of examinations

6.29   A number of institutions have sought to optimise the efficiency of examinations through timetabling, for example by scheduling large examinations as early as possible to facilitate marking. The primary concern is the student perspective, and institutions try to minimise the examination stress to students. However, organising examinations is a huge logistical task, so although institutions take great care to accommodate students with special needs or problems, the extent to which other individual student preferences are reflected is likely to be limited.

6.30   Key issues which institutions need to address in this area include:
- room management, including whether certain exams should be held off-site;
- the method for providing invigilators. The use of clerical and temporary staff is likely to represent better value for money than using academic staff, who could be more productively engaged in teaching and research activities;
- training of invigilators;
- adoption of anonymous marking schemes to support equal opportunities policies; and
- security arrangements for examinations to minimise opportunities for cheating.

Exam results

6.31   Institutions seek to produce results as rapidly as possible while exercising appropriate controls over their accuracy. Again, this represents a huge task in terms of co-ordinating:
- marking;
- external examiners' visits;
- conduct and servicing of exam boards;
- collating results; and
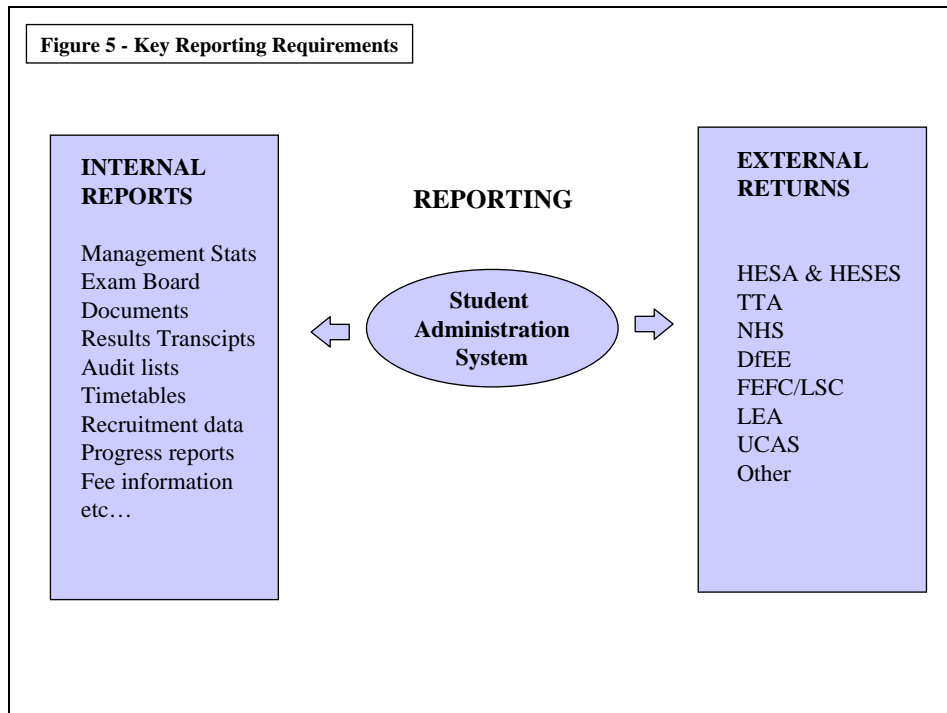- publishing results.

6.32   Good management information systems avoid duplication of effort in processing and publishing results. At least one institution has sought to

streamline its practices through piloting paperless examination boards. However, published results still need to be carefully checked. Institutions should also consider the implications of the Data Protection Act on the publication of results (see section 9).

7   Internal and external reporting

Introduction

7.1   Institutions have to produce a wide variety of information for a range of purposes. Many institutions said that responding to the demand for reports and the continuing changes in the information required represents the greatest challenge to them. The range of reporting requirements is illustrated in Figure 5.

Figure 5 - Key Reporting Requirements

INTERNAL REPORTS	REPORTING	EXTERNAL RETURNS
Management Stats	Student Administration System	HESA & HESES
Exam Board Documents		TTA
Results Transcipts		NHS
Audit lists		DfEE
Timetables		FEFC/LSC
Recruitment data		LEA
Progress reports		UCAS
Fee information		Other
etc…		

Assessment of information needs

7.2   Few institutions have fully assessed their information needs, although many have well defined systems for producing standard reports. An information-needs assessment will help institutions to prioritise their needs and avoid duplication of effort. An approach to carrying out such an assessment would be:

- identify the key user groups and their needs, consulting as necessary;

- define the key external returns which need to be made;

- define the key internal reports and information required;

- categorise the returns to distinguish between those which are essential, highly desirable or desirable;

- consider if any reports are duplicated and whether there are opportunities for minimising this;

- consider the frequency at which information is required;

- consider the resources available to produce the information and prioritise, on the basis of the defined categories, which information will be produced; and

- leave some scope to respond to ad hoc requests, although these should be strictly controlled and prioritised.

7.3   Good MIS and high quality data make producing information much easier. Indeed institutions introducing new systems generally see this as an opportunity to improve the quality and scope of their management information. The ability to analyse information easily on existing and potential students, to assess the effectiveness of current practices and procedures, may well offer opportunities to make savings and improvements.

Internal reporting requirements

7.4   The production of reports for external agencies is often a key driver for obtaining funding. Because of this, it is often perceived within institutions and particularly within academic departments, that external reporting requirements are prioritised ahead of the institution's own information needs.

7.5   The nature and scope of ad hoc queries will depend very much on the extent to which users can access and analyse data themselves. Approaches to providing such access vary widely, and include allowing access to the main system, or data sets derived from it (data warehousing). Inhibiting factors include:

- lack of suitable MIS to support such access; and

- poor data quality or 'unfriendly' data structures which inhibit extraction and analysis by more casual users.

7.6   These problems are difficult to overcome and in practice usually mean that staff at a relatively senior level within the central administration need to become involved in responding to basic enquiries and data requests.

7.7   Some institutions produce large quantities of printed reference information, to which casual users may refer, again mitigating the need for ad hoc requests and reports.
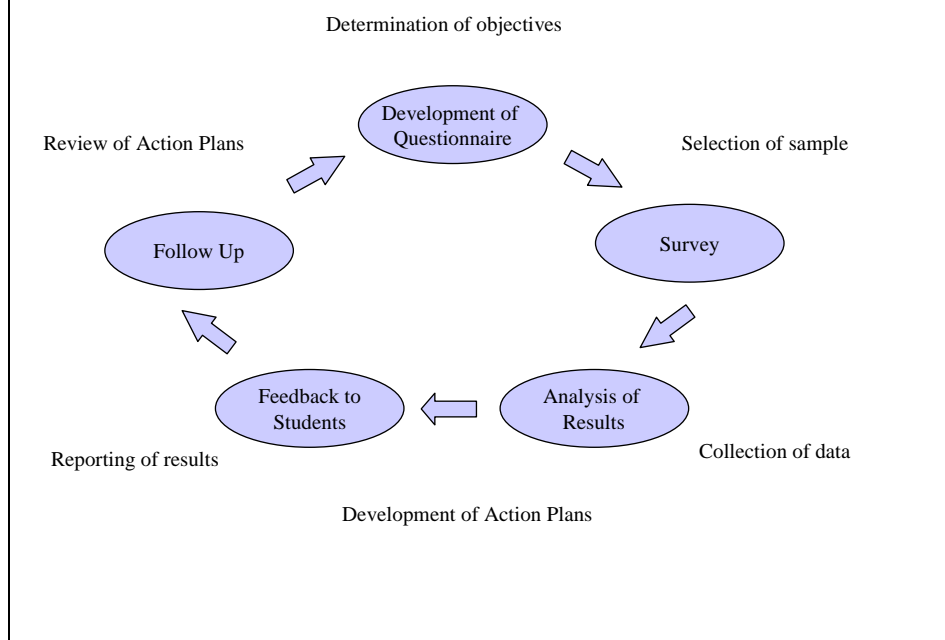
8 Customer service and communications

Approaches to assessing customer satisfaction

8.1 The stakeholders for an institution's student administration are discussed in the introduction to this report. Not surprisingly, when reviewing customer services, institutions tend to focus on students and particularly on prospective students. A number of approaches may be taken to achieve this:

- satisfaction surveys and interviews;

- performance indicators (PIs);

- service level agreements (SLAs);

- consultation and liaison groups; and

- complaints procedures.

8.2 The approach taken will depend upon the nature and assessed needs of the institution. Some of the approaches are discussed in more detail below.

Satisfaction surveys

8.3 Surveys in themselves clearly will not result in improvements in customer services. Institutions should be clear about the objectives of any survey. The most successful examples seen during this study are those developed via working groups of interested parties; for student and prospective student surveys this is likely to include students.

8.4 The results of surveys should be developed into action plans, allocating responsibilities and timescales, and these should be reported and followed up at a sufficiently senior level within the organisation. The process is illustrated in Figure 6.

8.5 Development of such questionnaires and the interpretation of results is a specialised area, and institutions may feel the need to draw on external support.

Figure 6 - Student Satisfaction Survey Process

Determination of objectives

Development of Questionnaire

Review of Action Plans

Selection of sample

Follow Up

Survey

Feedback to Students

Analysis of Results

Reporting of results

Collection of data

Development of Action Plans

Use of service level agreements and performance indicators

8.6   There is little use of formal performance indicators and service level agreements for student administration at present within the sector, although some development is taking place. A case study of one institution is set out below.

Case Study – University of Sheffield

Development of service level agreements

Objective

> The purpose of the SLAs is to document and publicise internally the results of a negotiation process between provider departments and users, whereby the service levels for central service and administrative departments are agreed, monitored and developed. The underlying principle is to achieve greater customer focus in the administrative support for the university's key business processes of teaching and research.

Implementation

> The information in the SLAs details each of the services delivered and includes a description of the service, details of the client groups eligible for the service, the provider and user responsibilities, the availability of the service, the service statistics/outputs, the response times/service measures, any dependencies and exclusions, and the feedback and monitoring mechanisms. Each SLA is available in its entirety on the university's intranet with links to other documentation as appropriate.

> **Monitoring**
>
> Monitoring is being undertaken by service quality teams set up to negotiate the SLAs. These are chaired by senior academics and include representatives of major users of the services, that is academics, students and where appropriate other administrators. Feedback on the two SLAs produced so far has been largely positive. Their production, however, is seen as the starting point of a continuous improvement process.

8.7 Institutions need to be clear about their objectives in introducing such measures. Some of the advantages of these approaches are set out below.

Potential advantage	SLAs	PIs
Basis for impartial evaluation of the service provided.	✔	✔
Basis for comparison with external service providers.	✔	
Defines information requirements.	✔	✔
Reduction in 'expectation gaps' through definition of the level of service to be provided.	✔	
Tool for resource planning.	✔	✔
Facilitation of comparison between different functions/institutions.	✔	✔

Other approaches

8.8 Some of the main methods used by HEIs to enhance the level of customer service are:

- review of the nature and number of complaints;
- suggestion and comments schemes;
- liaison groups, and discussion forums; and
- interviews with early leavers.

Communication with stakeholders

8.9 Institutions spend considerable sums of money in developing, printing and distributing publications, although electronic means of communication are becoming more widespread. Some of the key developments in this area are set out below.

Electronic communications

8.10 Communication with stakeholders via electronic means holds several key advantages:

- printing and distribution costs are minimised;

- information is easier to keep up-to-date; and

- communications have greater immediacy.

8.11 In terms of internal communications, some institutions are now making extensive use of the internet and intranet. This includes many publications such as course catalogues and procedure documents which previously would have been printed and distributed.

8.12 There was concern in some quarters that the ease of electronic communication can lead to 'information overload' particularly with e-mail. To combat this, it is important that institutions establish a code of conduct regarding use, and misuse, of their facilities. Although many institutions have policies on the nature of communications, very few have addressed the issue of quantity.

8.13 The developments in use of electronic communications seem likely to continue with initiatives such as the Higher Education and Research Opportunities project (HERO, www.hero.ac.uk). This is being established within the sector and is intended to provide a single web portal for information on UK higher education.

Publications

8.14 Publications represent a major area of spend within most institutions. Several have reviewed the nature and number of their publications in order to:

- develop a consistent 'corporate style';

- reduce the number of separate publications;

- reduce duplication between publications;

- optimise print run sizes;

- reduce printing and distribution costs;

- improve presentation, style and readability; and

- develop a suitable web strategy.

8.15 The use of marketing specialists or consultants may be appropriate to address corporate style, presentation and readability issues.

Other mechanisms

8.16   Other key mechanisms for communicating with stakeholders include:

- liaison with the students' union;

- representative groups, committees and discussion forums;

- student help desks – 'one stop shops', so students can obtain information via a single enquiry point where their enquiry will either be answered or the information found for them;

- HE shops;

- liaison with course or departmental representatives;

- TV screens located around the campus; and

- posters.

9   Data protection issues and archiving

Data protection issues

Background

9.1   The Joint Information Systems Committee (JISC) has produced guidance for HEIs on the implementation of the Data Protection Act 1998. This guidance is available on the web at www.jisc.ac.uk/pub99/sm09_data_prot.html .

9.2   Most recent innovations in student administration have resulted, or will result, in wider access to data. In future this may also mean that students themselves have access to certain types of data. Furthermore, since the 1998 Act also applies to manual systems, all paper systems and publications need to be controlled as well.

Examinations

9.3   Some of the key issues are as follows:

- the publication of exam results on notice boards or in the press, and the announcement or publication of results at graduation may breach the Act if the consent of candidates is not obtained;

- withholding exam results, for example pending payment of fees or other debts, cannot be sustained indefinitely without breaching the Act once an examination has been marked;

- examination scripts are exempted from data subject access, but examiners' comments are not, particularly if recorded other than on the script; and

- individuals have the right not to have significant decisions about them made solely by an automated process. This may have implications both for the automated marking of examinations and for the automated production of degree classifications for exam boards.

Cross-border data flows

9.4   Where personal data are transferred out of the European Economic Area (EEA), data controllers are required to assess whether the protection afforded to the data they send to non-EEA countries is sufficient, given the likelihood of risks to the rights of data subjects.

9.5   Clearly this has implications where data are published on the web, or where there is collaboration with non-EEA institutions, funding bodies or agencies.

Alumni records

9.6   Where alumni offices adopt direct marketing techniques, the database will not only have to comply with the data protection principles, but will also have to take account of the fact that data subjects can request that their personal data are not processed for marketing.

Processing

9.7   Specific conditions within the 1998 Act must be met before data processing can take place. Separate conditions apply to the processing of 'ordinary' and 'sensitive' data.

Data subject rights

9.8   The 1998 Act gives rights to individuals in respect of personal data held about them by data controllers. These include the right to make subject access requests about the nature of information and to whom it has been disclosed. For example, all students could be advised that information about them may (or will) be disclosed to other agencies like HESA, the Funding Council and TTA.

Conclusions

9.9   Clearly in such a climate, institutions need to have clear policies and procedures for ensuring that they comply with the Act and that staff and other potential users are adequately trained to comply with it. The nature and scope of the institution's data protection registration also needs to be regularly reviewed to ensure that it is appropriate.

Archiving

Introduction

9.10   Archiving of data is becoming an increasingly important issue within institutions. The requirements of the Data Protection Act 1998 mean that institutions will need to respond to requests for information from students and ex-students, and so will need systems to facilitate this.

9.11   The JISC Archives Sub-Committee of the Humanities Non-Formula Funding Committee has developed good practice on archiving in HEIs (www.kcl.ac.uk/projects/srch/reports/reports.htm).

9.12   Institutions will need to establish a policy on archiving to determine what will be retained, in what format, and for how long. Such a policy should be part of the institution's overall information strategy. Legal requirements including those of the Data Protection Act will strongly influence such a policy.

Document retention times

9.13   The JISC Archives Sub-Committee commissioned a report, 'Study of Records Lifecycle', which sets out guidance on retention periods for a variety of student administration documents. The report is available on the web at www.kcl.ac.uk/projects/srch/reports/reports.htm .

10   Independent review

Introduction

10.1   Independent review of systems and the mechanisms through which value for money is obtained are important features of any development process and can represent an important catalyst for change. Such input may be provided by internal or external sources. The most common sources are:

- audit committees;
- internal audit; and
- other institution-specific mechanisms.

Audit committees and internal audit

10.2   The audit committee and internal audit have a responsibility to review the institution's internal control systems to assess their adequacy, reliability and effectiveness, and to determine whether proper arrangements are in place to promote economy, efficiency and effectiveness.

10.3   Student administration represents a core area of every institution's business, so it is perhaps surprising that many institutions have not seen this as one of the key areas for audit attention. Audit committees are therefore encouraged to take the following actions:

- verify that appropriate coverage of student administration is included within the institution's Audit Needs Assessment (ANA);
- verify that the institution's value for money strategy addresses the area of student administration; and
- request management or internal audit to undertake a value for money review of the student administration systems, focusing upon the self-assessment questions set out in section 11 of this report.

Other mechanisms

10.4   Other mechanisms for reviewing systems include:

- control risk self-assessment (CRSA);
- internal quality reviews;
- peer reviews by staff from other institutions;
- collaborative reviews by groups of institutions; and
- quality reviews by external agencies, such as Chartermark.

10.5   These mechanisms are likely to represent a useful addition to, rather than a substitute for, the work of the audit committee and internal audit. Their key strengths are highlighted below.

Mechanism	Strengths

Internal quality reviews	- focus on the needs of the individual institution; - can be helpful in establishing service level expectations.
Peer reviews by other institutions and collaborative reviews	- allow for sharing of experiences and benchmarking between institutions; - review is by a practitioner and as such should be practical and credible.
Reviews by external agencies	- may offer externally recognised quality standard; - promotes consistency with generally accepted good practice standards.

11   Self-assessment guide

The approach adopted

11.1   At the outset of this study, the sector expressed the need for a series of benchmarks for institutions to assess the performance of their Registry functions.

11.2   The benchmarking of student administration systems was considered to be particularly challenging, because of the variety of structures and functions of individual institutions. For this reason a sector Working Group was set up to tackle this area. The Group comprised members nominated by the Association of Heads of University Administration (AHUA), the Academic Registrars Council (ARC) and a Director of Finance. Consultancy support was also obtained from a recently retired Director of Registry. **Annex B** lists the members of the Benchmarking Working Group.

11.3   The terms of reference for the group were:

> **To develop a range of suitable benchmarks relating to student administration systems within the UK higher education system.**

11.4   The group began by determining key objectives for student administration systems. Some areas were excluded, both because of the timetable for completion of the study and to avoid duplicating work done elsewhere. For example, IT systems were not included because of a study by the UK Value for Money Steering Group (HEFCE reference 98/42). Student finance, tuition fees, marketing, alumni relations and student support have been the subject of recent scrutiny so were also excluded from the study.

11.5   The objectives selected were as follows:

Objectives selected for assessment

Objective 1
Students are recruited and admitted in accordance with appropriate policies, regulations and business objectives.

Objective 2
Data are collected and recorded accurately.

Objective 3
Systems have been established to track students through their lifetime at the institution.

Objective 4
The conduct of examinations is in accordance with the needs of the institution.

Objective 5
Student assessment is in accordance with the institution's regulations and procedures.

Objective 6
Internal and external reports are produced in an accurate and timely manner.

Objective 7
The quality of service to students, staff and other customers is appropriate.

11.6   The objectives were used as the basis for a series of questions which were put to a sample of institutions, which are listed at **Annex C**. These pilot sites were of differing sizes, at a variety of locations, included old and new universities, and offered a variety of course portfolios. The questions were designed to elicit information on the practices at these institutions to determine key elements of process and common approaches. These would be considered by the sector to represent generally accepted good practice. The results are set out in the following section of the report.

11.7   Discussions with the pilot sites were not limited to registry staff but included a range of interested parties and customer groups, namely:

♦   heads of institutions (or an appropriate deputy);

♦   heads of registry functions;

♦   registry and other student administration staff;

♦   heads of finance;

♦   heads of management information systems;

♦   heads of academic departments; and

♦   student representatives.

11.8   The results of this work are not intended to represent a checklist of good practice. It is recognised that something which works well in one institution, and could be seen as good practice there, could be unsuitable elsewhere. Consequently the objective of this work is to present what was considered to represent good practice at the institutions visited to enable other institutions to assess the potential for their own processes to be improved. It is recognised that student administration is a rapidly developing area, particularly in terms of the technology available, and that this pace of change is likely to continue. As such, 'good practice' is constantly evolving as new developments become available and affordable. The self-assessment questions have also been prepared as a stand-alone document available on the HEFCE web-site under 'Publications' reference 01/27.

Current practice

Objective 1

      Students are recruited and admitted in accordance with appropriate policies, regulations and business objectives.

Integration of functions

Self-assessment questions

i.   To what extent are the recruitment and admissions functions integrated, and what are the pros and cons of that approach for the institution?

ii.   To what extent does admissions policy drive recruitment activity?

11.9   Most institutions in the sample have integrated recruitment and admissions functions. The main advantage of this approach is the avoidance of duplication of records. One medium sized institution was particularly strong in this area, operating a 'call centre' system supported by a database which enables potential students to be tracked from initial enquiry through to admission and enrolment without the need to duplicate any input.

11.10 The extent to which admissions policies drive recruitment activity varied between institutions. Institutions with high demand for places generally give this area less attention than those who have to work harder to meet recruitment targets. This is understandable; however, for an institution to achieve the best value for money in its recruitment, such activity should be appropriately focused.

11.11 As well as appropriate co-ordination of the recruitment and admissions function, there should be suitable co-ordination between the various staff members making admissions decisions. One institution significantly reduced the level of rejected applications by examining, with the student's permission, other options for students rejected by their first choice of department or course. A senior member of staff makes a further check on whether any remaining rejected applicants can be accommodated, for example by studying for lower level qualifications or at franchise institutions.

Policies and procedures

Self-assessment questions

iii.   Are admissions policies established and documented?

iv.   Do these provide a clear statement of policy and objectives?

v.   How are the policies informed, monitored and communicated?

vi.   Are the policies written and published in such a way as to inform the institution as a whole, not simply admissions staff?

vii.   Do these policies provide practical guidance for staff on dealing with difficult or sensitive situations?

viii.	How does the institution ensure that policies comply with relevant rules and legislation (for example, Data Protection Act, Equal Opportunities legislation, UCAS rules)?
ix.	How does the institution monitor the effectiveness of policies against objectives (for example, in relation to admission of disadvantaged students, ethnic minorities, and students with particular entrance qualifications) and are such comparisons reported to senior management?

11.12   All the institutions visited have documented their admissions policies, though the majority considered that further development would be useful to ensure that policies and objectives are clearly stated. Further development was also considered desirable at several institutions in the provision of practical guidance for staff on dealing with difficult or sensitive situations, and ensuring that policies are written and published in a way that informs the whole institution and not just admissions staff. It was generally considered that the higher education environment is increasingly litigious, and that clear, consistent documentation and application of procedures represents a first line of protection for institutions.

11.13   With increasing amounts of legislation and guidance, institutions often find it challenging to keep policies and procedures up-to-date. Compliance with the Data Protection Act, Equal Opportunities legislation and UCAS rules have been addressed in a number of ways. Most institutions have centralised their control over these areas, particularly compliance with the Data Protection Act. Other areas may be less formalised, relying on staff in the central administration to keep in touch with relevant legislation guidance and professional briefings.

11.14   A number of the institutions were using, or intending to use, the web to communicate policies and procedures. Though this cannot ensure that relevant people read procedures, it ensures that the information is widely available, on a timely basis, to those who may need it, and that the version seen is always the most up-to-date available.

11.15   Monitoring the effectiveness of policies and procedures took several forms, and several institutions are seeking to develop it further. One institution has developed an annual report which summarises the way its objectives have been achieved. This includes admission of disadvantaged students, ethnic minorities and students with non-standard entrance qualifications. In another institution, postcode monitoring is used to assess whether students from disadvantaged backgrounds are being attracted to the institution, this issue being presently under debate within the HE sector.

Analysis of data

Self-assessment questions

x.	Is any analysis made of early leavers?
xi.	Are the results of these analyses used to inform the marketing and recruitment processes?
xii.	Have any analyses been carried out of the reasons for applicants applying/not applying to the institution, or the reasons for accepting/not accepting an offer, or for not taking up a place?

11.16 A number of institutions have analysed the reasons for applicants applying/not applying to the institution and for accepting/not accepting the offer of a place. One institution carried out a full survey of applicants who had withdrawn their applications or rejected an offer from the institution, to assess:

- what attracts applicants to the institution;

- why applicants may reject an offer;

- why applicants may prefer another institution;

- what applicants think of the service offered to them; and

- how the service offered could be improved.

11.17 To improve the response rate, the institution included a free prize draw ticket with the survey to be returned with the completed questionnaire. The findings of the survey have been used to develop a number of action points relating to:

- information provided to applicants;

- the conduct of open days;

- customer service issues;

- the physical environment;

- academic issues; and

- the image and reputation of the institution.

11.18 It is important to consider Data Protection legislation when conducting this type of survey, to ensure that the institution's registration is appropriate and, where necessary, that permission has been sought from the applicant to use their data in this way.

11.19 Although several institutions do follow up early leavers, few have done this systematically. One institution formally contacted all students who withdrew within the first two to three weeks of term. This information was used to review and improve the conduct of Freshers week.

Handling of enquiries

Self-assessment questions

xiii.	Has the institution established policies and procedures for dealing with enquiries?
xiv.	Are enquiries logged?
xv.	How do you ensure that all offices that are likely to receive calls are aware of where to route different types of enquiry for the institution as a whole?
xvi.	Has the institution analysed the route by which enquiries are received (post, e-mail, etc) and allocated resources accordingly?

11.20 A key feature in handling enquiries has been increased use of electronic media in recent years. Institutions find this to be a convenient way of handling enquiries since they can be directed easily to the right member of staff. To make best use of this method of communication, it is helpful to list who to contact for various types of enquiry, routine and more specific, on the institution's web page. For example, one institution has a 'who to contact and how' link on the home page of its web-site which provides key e-mail addresses, postal address and telephone numbers for the institution.

11.21 Not all institutions visited log all enquiries, but there was a general acceptance that this represented good practice. Where institutions do not do this, it was generally because they do not have appropriate IT systems and because paper systems were considered to be too cumbersome. Where enquiries are logged, most institutions have analysed the source of their enquiries (e-mail, telephone, post, etc) and have allocated resources accordingly. As mentioned above, one institution was particularly strong in this area, dealing with all enquiries through a 'call centre' where, from the first point of contact, an enquirer is allocated a named individual to whom further enquiries can be directed.

11.22 All the institutions considered that offices likely to receive calls were aware of where to route the different types of enquiries received. Various methods of communicating these procedures are operated, the most popular being via the staff handbook, with web versions of staff handbooks becoming increasingly commonplace.

Selection and recruitment of students

Self-assessment questions
xvii. Is selection carried out by academic and/or by administrative staff?

11.23 In most cases, selection of students is carried out by academic staff on a devolved basis. Two of the institutions have centralised standard decisions; these are now made by administrative staff. This is a relatively new initiative in one institution, and is very successful. Admissions decisions are now routinely made by staff in the admissions office in line with criteria pre-determined by the relevant admissions tutors. A key element in the scheme's success has been the establishing of a mechanism for academic staff to be consulted in cases where academic judgement is required.

11.24 A major benefit of such a system is the freeing up of academic time from administrative work to concentrate on teaching and research, representing improved value for money to the institution. This approach is worthy of consideration by other institutions. Account must, however, continue to be taken of external requirements, for example, the requirement of the Teacher Training Agency (TTA) for applicants to be interviewed by academic staff.

11.25 Most institutions have carried out limited assessment of the cost effectiveness of the various types of recruitment material, in terms of the background and educational profile of the students admitted. One institution commissions MORI surveys in this area. This has led to changes in recruitment methods, for example press advertisements have been found to be ineffective so are no longer placed.

Training of admissions tutors

11.26 Only four institutions in the sample provide systematic training for new academic selectors. Several other institutions intended to introduce such training in the short or medium term, and there was consensus that such training represents good practice, to ensure that institutional strategies and equal opportunities policies are adhered to.

Data input and accuracy

i.	Have policies and procedures been established and published for the collection of data and the notification of changes, with clearly defined responsibilities for students and staff?
ii.	Are reminders issued on a timely basis, and are academic staff reminded regularly of the need to report withdrawals and other changes promptly?
iii.	Are staff trained to input data correctly?
iv.	Are procedures documented for the guidance of staff inputting data?

11.27 Most institutions have established policies and procedures for the collection and input of data and the notification of changes.

11.28 Staff are trained to input data accurately in most institutions. However, the accuracy of initial input varied widely in the institutions visited. Some use sample checking to verify the quality of input. However, none had found it practical, given the volumes of data processed, to check all input. The exception to this was an institution where students input their own enrolment data ready for checking by an enrolment officer before the enrolment process is complete.

11.29 Institutions utilise a range of validity checks to ensure accuracy of data input. Most of these are software-specific and are not readily transferable to other systems. One institution had particular concerns in this area since students input their own data. Data accuracy had actually been improved through this system since controls include:

- for many fields, a limited range of acceptable input options;

- logic tests which limit the options for subsequent fields when a particular option has been selected for an earlier field; and

- controls which prevent the student from moving on to the next field without completing previous fields.

11.30 While such controls are likely to be common to many systems, self-enrolment by students has led to particularly careful consideration of potential security problems within this institution. It is essential that students can only access their own records and that they cannot access areas such as exam marks. Because of the attention given to security when introducing the system, the introduction of self-enrolment has actually improved data quality and integrity rather than undermining it.

Centralisation of data

Self-assessment questions	
v.	Is responsibility for input of data centralised or devolved?
vi.	Are separate departmental databases maintained? If so, how is the accuracy of the central database assured?

11.31 Data control and the ability to amend data on the central database was restricted to the central administration in most cases, although a number of institutions are now able to upload certain data, marks in particular, directly into the central database. Though none of the institutions visited are presently able to allow academic staff and

students to amend data on-line, it is understood that a number of institutions do allow academic staff to amend data on-line, and at least one large institution allows students to update some of their data (particularly addresses) via the web. The main inhibitor to this in other institutions is the lack of appropriate software, since there are considerable security issues to address with such a system.

11.32   In several of the institutions, departments maintain their own databases of student information. This can lead to anomalies between central and departmental data. Systems that operate a data warehouse (a facility whereby data sets are downloaded from the main database and made widely available) seem to be best at avoiding these anomalies. Where such systems operate, authorised users can access data and load it into their own spreadsheets. In such systems all users have an interest in ensuring that the data is accurate and that changes are notified to the relevant department. Those without such systems tend to check the accuracy of central data via the distribution of audit lists for checking and similar methods.

Managing workload peaks

Self-assessment questions
vii.   Is annual enrolment conducted on-line? If so, to what extent (for example, data input by students, or staff)?
viii.   What methods are employed to help cope with peak workloads (for example, use of temporary staff)?

11.33   One of the key workload peaks was noted as being the enrolment of students at the start of the year. Institutions have adopted a number of strategies to help cope with this peak. The most common method is the use of temporary staff, floating staff or staff 'borrowed' from other departments. Other strategies include postal enrolment of students and provisional enrolment of continuing students before the start of the academic year. One institution visited simply sets itself very tight deadlines, and staff work long hours to meet these deadlines; in this case all data are input within three days of enrolment.

Handling changes

Self-assessment questions
ix.   Are students given on-line update access to amend their own records and, if so, what security and data validation procedures are in place?

11.34   Initial collection of data was generally found by the institutions visited to be easier to regulate than changes to the data. Students and staff may fail to inform the relevant department of changes. Institutions have adopted a range of strategies to deal with this, including attempts to make it easy to notify changes, for example, by electronic means. The most common way of checking the accuracy of data was via data audits. Asking staff and/or students to confirm the accuracy of data from printed records has not achieved good response rates.

Prioritisation of information needs

Self-assessment questions
x.   Have the information needs of the institution been prioritised?
xi.   Are adequate validity checks and checks of accuracy built into the input processes?
xii.   How do you attempt to ensure that complete and accurate records are in place in sufficient time to meet these needs?

11.35   Few of the institutions visited have formally determined their requirements for management and corporate information as a basis for determining priorities in terms of staff and information technology resources, although in most institutions the IT strategy goes some way towards achieving this. One institution visited was carrying out such a formal determination. The sector has been strongly encouraged to produce information strategies, and the JISC has produced guidance in this area (www.jisc.ac.uk/pub/infstrat).

11.36   To be able to report efficiently and to provide good management information, data must reach the system as efficiently as possible. A wide range of timescales for initial input of registration data was observed at the institutions visited. The most efficient was the institution where data are input on-line by the students themselves. Of those institutions inputting data from a paper-based system the tightest deadline was the completion of input of registration data within three days of the completion of the physical enrolment process. In the slowest institution data was still not complete by the end of the first semester, although this was due largely to difficulties in getting students to complete the formal enrolment process.

Use of technology

Self-assessment questions
xiii.   Are any innovative methods of data capture, handling and storage in use (for example, Data Image Processing, Optical/Intelligent Character Recognition (OCR/ICR), Workflow systems)?

11.37   The institutions visited had limited experience of innovative methods of data capture, such as data image processing, optical/intelligent character recognition (OCR/ICR) and Workflow systems. One institution has made use of OCR systems to read questionnaires issued to Freshers. Another institution carried out a trial using OCR, but found that the data produced were unreliable using the reading equipment available at that time.

Objective 3
Systems have been established to track students throughout their lifetime at the institution.

Course structures

Self-assessment questions
i.   Is the course structure, on the basis of which students make their course choices, coherent and readily comprehensible?

11.38   All institutions visited considered the course structure, on the basis of which students make their course choices, to be coherent and readily comprehensible. One institution was in the process of simplifying its modular system to substantially reduce the number of modules on offer. This partly reflected feedback from students which suggested that they would welcome clearer course paths with less choice rather than more.

Data collection and validation

Self-assessment questions
ii.   Are registrations for mandatory units automatically generated?
iii.   Are unit registrations validated as they are input?
iv.   Is responsibility for correct registration as between students and staff clearly specified?
v.   Do students verify the units they are registered for?
vi.   Are systems available to auto-validate students' unit choices against the requirements for their target awards?

11.39   Responsibility for correct registration as between students and staff was clearly specified at all institutions visited and generally rested with students, with all but one requiring students to verify formally the units they were registered for. Institutions also recognised that, in practice, checks still need to be carried out by staff if the risk is to be minimised of students reaching the end of their courses without the correct credits.

11.40   In most cases, registrations for mandatory units for a student's chosen course are automatically generated by the system. This saves repeatedly inputting the same units for groups of students. The extent to which a student's registrations for course units are checked centrally tends to depend on the extent to which academic advisors are involved in agreeing and approving the units registered for. Some IT systems automatically validate the units for which a student is registered against the course they are taking. If the registrations are not appropriate to the award being sought, the student and their academic supervisor/s are informed.

Monitoring and tracking

Self-assessment questions
vii.   Are progress decisions automated wherever practicable?
viii.   Are the regulations on 'unsatisfactory progress' clearly defined?
ix.   Is each student's progress reported regularly to their academic supervisor?

x.	Is there a process which ensures that all unsatisfactory students are followed up and receive appropriate guidance?
xi.	What processes are in place for verifying that a student has satisfied the regulations for the award of the degree?

11.41   Some institutions can indicate progress decisions automatically in straightforward cases. Where this occurs, it has been important to ensure that academic decisions rest properly with academic staff and that they specify where progress should be automatic and where further consideration is needed. All institutions visited believed that they have clear regulations defining what constitutes 'unsatisfactory progress'.

11.42   In approximately half of the institutions visited, the prime records of students' progress are held centrally. In the remainder, the prime record is maintained within departments, with data being passed to the centre periodically to update the central system. Where the prime records are held within departments, some institutions leave practices regarding monitoring of students' progress to individual departments to determine. This can lead to inconsistent treatment of students in different departments and a perception of unfairness by students. Other institutions have standard procedures which the departments are expected to follow to prevent such inconsistencies.

11.43   All but one of the institutions visited believed they had systems in place which ensure that students making unsatisfactory progress are followed up and receive appropriate guidance. A few institutions felt that their systems were not formalised to the extent that they would like. Again, consistency of treatment between different students was felt to be key.

11.44   The final check to ensure that students have satisfied the regulations for the conferment of a degree is carried out manually in most institutions, although one has a system which automatically highlights when the required number of credits have been achieved. This avoids the need to check all cases manually.

Objective 4

The conduct of examinations is in accordance with the needs of the institution.

Control of papers

Self-assessment questions	
i.	Is guidance published to secure arrangements for the preparation and printing of examination questions?
ii.	What arrangements are in place to ensure that question papers are stored in secure conditions at all times?

11.45   Most institutions had published guidance regarding security arrangements for the preparation and printing of examination questions. In some, however, the arrangements within departments are less formalised, with reliance on departments to ensure that security arrangements are adequate. Clearly the absence of formal arrangements carries risks.

11.46   For the security of examination papers once they have been prepared, a variety of mechanisms are adopted by institutions. In the main, reliance is placed upon physical controls with scripts locked away with only a limited number of key holders.

11.47   A variety of mechanisms was in place to assist with the security of blank answer books. Again, physical measures represented the main control mechanism. One institution prepares answer books in a variety of colours which are allocated at random to the various examination sessions. This reduces the risk of students preparing answers on illicitly obtained stationery and using them during an exam (since students would need to predict which colour of answer book was to be used for a particular session). Another control mechanism used is to issue answer books in numerical sequence. Books used out of order could thereby be detected.

11.48   Institutions were also concerned with ensuring that opportunities for impersonation of students in exams were minimised. The most common approach is to require students to bring their identity cards with them to exams and to place them on their desk during the exam.

Management of exam halls

11.49   Most institutions visited use academic staff for invigilation duties. There is a recognition that academics may not see this as the best use of their time, although some institutions prefer to have a member of the relevant department present, at least at the start of the examination, to answer queries on the examination paper. In some institutions there is a perception that using academics is a zero–cost option since their salaries are already budgeted for. This ignores the opportunity cost associated with the tasks of a more academic nature which could be undertaken if staff were not attending examinations.

11.50   Other methods of procuring invigilators at the institutions visited include:

- the use of 'chief invigilators' who are administrative staff, familiar with the examination rules and regulations supplemented by academic staff;

- the use of a mixture of academic staff and temporary staff brought in to assist them;

- the use of supervised postgraduate students; and

- the use of a pool of experienced temporary staff, with relevant academic staff visiting the examination hall at the start of the examination to answer any questions.

11.51   Few institutions have calculated the cost of their particular means of procuring invigilators. If the 'zero cost' argument is not accepted with respect to academics, it is clear that the use of academics is considerably more expensive than the use of clerical or temporary staff.

11.52   While some institutions provide formal training for invigilators, others rely on written guidance. This relies on invigilators to read and understand the guidance. In general, institutions have found it impractical to check on the way examinations are conducted, and the only way they might find out about inconsistencies or lack of understanding of the rules would be through students' complaints after the event.

11.53   Institutions were also keenly aware of the need to keep examination rules under review. For example, the growth in use of mobile phones - which includes the ability to send and receive messages and access the internet - has required a response from institutions, many of which either ban mobile phones and other electronic equipment from examination halls or require that they be switched off during examinations.

11.54   All institutions visited make use of computers for the timetabling of exams, the most popular off-the-shelf packages in use being Celcat and Scientia. Problems with scheduling of rooms largely depend on the nature of the institution's estate. For example, one institution visited has few large rooms available. This has necessitated the hiring of facilities off-site for large examinations and the transportation of students to the examination location. This can represent a significant logistical task.

11.55   Requirements for examinations represent only one aspect of the space needs of an institution. A study of space management in Welsh HEIs published by the National Audit Office in 1996 indicated that in general large rooms, which are most useful for the conduct of examinations, tend to be under-utilised. Institutions will need to assess their own space needs, probably through the conduct of utilisation surveys, and keep these needs under review.

Examination timetabling

vii.	Is the timetabling of exams computerised?
viii.	Is there a computerised room allocation system for exams?

ix.	If so, which computer package(s) are used?
x.	What principles underlie the construction of the examination timetable (for example, student to have only one exam per day)?
xi.	Are clashes highlighted by the system?

11.56 All of the systems in use by the institutions visited highlight or prevent examination clashes. However, particularly where there is a great deal of choice, it is occasionally necessary to make arrangements to accommodate clashes which are unavoidable. This usually involves some sort of segregation or supervision of relevant students until the examination has been completed.

11.57 Due to the extent of modularisation and, consequently, the large numbers of examinations being held, most institutions find it difficult to enact clear principles regarding construction of the examination timetable. One institution visited tries to ensure that students at honours level will have to sit no more than one honours examination in a day. Another institution tries to avoid students being required to sit any more than five examinations consecutively. Generally, however, the key principle is to ensure that there are no clashes.

Special needs

Self-assessment questions
xii.	What procedures are in place for early identification and assessment of students with disabilities or special examination needs (for example, Dyslexia)?
xiii.	What policies are in place relating to the special arrangements to be applied to students with disabilities or special examination needs (for example, extra time allowed, PC facilities)?

11.58 Institutions have a range of measures to identify the examination needs of special needs students. In general this information is initially gathered upon admission or at registration. Measures to accommodate such students depend upon the specific need or disability and include:

- extra time (typically 10 minutes per hour);
- provision of different coloured paper and/or allowing the use of coloured filters for reading exam papers;
- allowing students to take examinations alone, away from examination halls;
- provision of a computer; and
- provision of a scribe.

11.59 A number of the institutions commented on the increase in the number of students with special needs. This requires the early identification of such students to ensure that their particular needs can be provided for.

Objective 5

> **Student assessment is in accordance with the institution's regulations and procedures.**

Assessments

Self-assessment questions
i. How is it ensured that examinations and assessments are conducted in accordance with the institution's published regulations and procedures?
ii. Is a scheme of anonymous marking in operation across the institution?
iii. What are the key elements of the anonymous marking model that is used?
iv. What measures are in place to ensure the accuracy of the recording and transcription of examination marks by examiners (for example, are departments made aware of the potential dangers of errors in spreadsheets and is IT advice available on how to avoid these)?

11.60 Responsibility for ensuring that examinations and assessments are conducted in accordance with the institution's published regulations and procedures rested in a variety of offices within the institutions visited. In all cases, however, the responsibility was within the central administration function, within the examinations office or equivalent.

11.61 Most institutions visited have a scheme of anonymous marking in place, but in some this is used at the discretion of the various departments. A number of schemes were in operation, the most common being the use of a student's registration number as an identifier. One institution visited allocates different identifying numbers for this purpose via the examinations office, since the registration number is used widely for a number of purposes and is considered to be readily identifiable to the staff who mark the work.

11.62 Institutions operate a variety of measures to ensure accuracy of recording and transcription of examination marks by examiners, although in several cases these measures are not formalised across the institution. A number of institutions operate electronic marks recording systems, from which marks can be automatically uploaded into the central system for checking via the signed examination board mark sheets. In such cases, training on the proper use of the system has generally been provided. Those institutions without such systems have generally not provided training to staff on issues such as the danger of errors in spreadsheets and how to avoid these.

Examination boards

Self-assessment questions
v. Are clear regulations in place as to the duties and responsibilities of Boards of Examiners, including External Examiners?
vi. Are Boards serviced by administrative staff who are able to advise the Board?

11.63   All institutions visited believed that they had clear regulations in place concerning the duties and responsibilities of Boards of Examiners. In most cases the Boards are serviced by administrative staff who are able to advise the Board. One institution visited leaves this area to the individual departments, however. This leads to a risk that Boards will not be conducted in a consistent way across the institution, although to date the institution concerned has not experienced any such problems. Another institution also leaves the conduct of Examination Boards to the individual departments, but administrative staff are on call to assist with any queries regarding process and procedures.

Results

Self-assessment questions
vii.   How are results communicated by academic departments to the central administration?
viii.   How are results lists authenticated by the examiners, particularly where results are communicated electronically?
ix.   Are results checked back to source data (possibly on a sample basis)?
x.   Are results issued according to a published timetable?
xi.   How much time elapses between a student taking their last exam and receiving their results?
xii.   What factors affect the amount of time taken to issue results?
xiii.   Do students receive an automated individual notification of their exam results?
xiv.   What security measures are in place in respect of transcripts and degree certificates (for example, security in-built to the stationery, number of documents issued recorded and reconciled with paper stock)?

11.64   Approximately half of the institutions visited can transfer marks electronically to the central system. In all cases marks are authenticated through provision of lists signed by the Chair of the Examination Board. Where marks are transferred electronically this is generally found to be far more efficient by the central administration since it avoids duplication of effort, and the emphasis of their work can be changed from inputting to checking the figures provided on the authorised exam board lists.

11.65   Some checking of the results input was undertaken at all institutions visited. In some cases, however, it was impossible to check all input and it has only been possible to carry out sample checks. Those able to check all results are generally ones using electronic marks recording systems.

11.66   Results are issued to a published timetable in most institutions. The speed of processing of results varied between two weeks of completion of the examinations and a month. Attention was drawn to the need to balance the desire to issue results speedily against the increase in the risk of error.

11.67 The main factor cited as affecting the ability to turn results around quickly was the scheduling of Examination Boards and availability of external examiners. The speed at which academic staff are able to mark the papers also has an effect, and a number of institutions aim to schedule the examinations with the greatest numbers of students as early as possible to maximise the time academic staff have available for marking.

11.68 The majority of institutions provide students with individual notification of their results. A few, however, notify results through the publication of results lists.

Transcripts and examination certificates

Self-assessment questions
xv. Are transcripts produced automatically for all students completing a programme of study?

11.69 Approximately half of the institutions visited routinely produce transcripts for all students completing a programme of study. In some other cases they are only produced at the specific request of students. One institution visited will produce transcripts for students on request within a 24-hour period. They find this method provides a better service to students than providing transcripts to everyone at the same time, since students frequently request a transcript prior to completion of their course, particularly during their final year when they are applying for jobs.

11.70 Institutions have a variety of methods to secure transcripts and degree certificates, for example, treating blank certificates as controlled stationery, and security in-built to the stationery. Additionally, most institutions are able to verify the validity of certificates when enquiries are received. Institutions are aware, however, that the risk of false certificates being produced has increased considerably in recent years due to the wide availability of desktop publishing packages. There was strong agreement between the institutions visited regarding the importance of reducing qualification fraud.

11.71 It is now possible for employers to make use of a company (Experian) which, with the permission of the student, provides employers with HESA data from which qualifications may be confirmed. It was noted, however, that HESA data would include students who had successfully completed their course but had been blocked from formally receiving their award, for example because of outstanding debts.

Objective 6
Internal and external reports are produced in an accurate and timely manner.

Format and management of reports

11.72   Most of the institutions visited have a formal policy setting out who is authorised to produce data for publication in respect of the institution. In other cases the route for requests for such data is known but is not formalised, increasing the risk to the institution that 'unofficial' data could be circulated. Particular concerns were expressed regarding the handling of students' results since general publication may breach Data Protection legislation.

11.73   The majority of institutions prepare an annual schedule of the routine reports and returns required to manage their production. Control over requests for *ad hoc* data and returns is more diverse, however, with some institutions needing to prioritise carefully all such requests and respond only to the most important. Those institutions with data warehouse facilities are generally far more able to deal with such requests, since staff are able to access the majority of data to produce reports in whatever format they require. One such institution is able to respond to all requests for *ad hoc* reports within two days, since the level of requests is relatively low.

Centralisation

11.74   Those institutions without data warehouse facilities do not generally allow staff outside the central administration access to the system to produce their own reports, etc. A main reason cited for this was the degree of expertise required to handle the data effectively, since most databases in use require a high level of understanding of the data structures in use to interrogate them effectively.

11.75   Where departmental staff do not have access to central data, it is far more likely that they will maintain their own lists and databases. Again, this carries an inherent risk of anomalies between data sets. Where central data is not used by the departments, inevitably staff will be less motivated to notify amendments which come to their attention.

11.76   A minority of institutions visited now have data sets which can be interrogated via their web-site. In general access to this information is limited, however, since it may be confidential in nature.

IT support for reports

11.77 Only a small minority of the institutions felt that they have adequate professional computing resources available to make the necessary changes to system reports. Demand for such changes and developments was seen as virtually limitless, and institutions therefore need to prioritise how their resources will be applied.

11.78 The production of routine returns was largely computerised in the institutions visited. However, in some cases a substantial amount of manual intervention is still required to produce the final version of returns. The extent to which this occurs depends on a number of factors including:

- the quality of the underlying data on the central system;

- the extent to which certain information is retained within individual departments;

- the professional computing resources in place to make changes to the system reports; and

- the software in use.

Accuracy of reports

11.79 Most of the institutions visited have policies to ensure that report output is sample checked and that reports are regularly reviewed in light of changes to the underlying database. However, most felt that their checking systems could be improved since errors do occur. Given the volumes of data being processed and the short timescales that often apply, institutions generally find it necessary to sample check and do 'reasonableness checks' rather than being able to verify all data reported.

Objective 7

The quality of service to students, staff and other customers is appropriate.

Student Charter

11.80   The majority of institutions visited have published a Student Charter. Those with no Charter produce other guidance for students which they consider to be equivalent to a Charter.

11.81   The communication of the Student Charter was considered to be particularly important by heads of institutions and heads of registry functions. A number of approaches have been adopted to try to make the Student Charter accessible and readable for students. One institution visited has incorporated the key elements of the Charter within a diary which was issued to all students. The diary also contains key deadlines for the institution and other useful information and is well used by students.

Establishment of service levels

11.82   Few of the institutions visited formally monitor the handling of enquiries from students by, for example, recording of telephone conversations or measuring of response times. The main reason for this has tended to be the lack of suitable equipment to carry out such monitoring. Most institutions do, however, keep some sort of record of enquiries and, as these systems improve, are carrying out more monitoring of the outcomes of these to assist with their marketing strategies.

11.83   Some institutions are setting targets for the response times to various types of enquiry, although in general these are for internal guidance and are not published. For example, one institution visited has established timescales for the provision of transcripts to students.

Monitoring of services

ix.	Is voicemail/automatic call routing in use?

11.84 Approximately half of the institutions visited have in place some form of external quality audit of the student administrative services. Where this occurs it may take several forms, for example:

- reviews by internal audit. Few internal audit providers appear to cover the area of student administration other than from the perspective of the handling of student debt and other financial matters. Given the core nature of the student administration function to the operation of institutions, this is perhaps surprising;

- Chartermark. This award requires the institution to provide evidence that it has met a number of specific standards;

- internal administrative quality reviews; and

- peer reviews of the student administration function within other institutions.

11.85 Additionally, a number of institutions undertake customer satisfaction surveys. These surveys tend to be considerably wider than the student administration function, and have provided useful feedback for improving services. For example, one institution visited substantially revised the registration process following negative feedback from the students through a customer satisfaction survey, by selecting a new location for the main tranche of registrations and allocating students fixed times to attend, thus substantially reducing waiting times.

11.86 Institutions that have undertaken customer satisfaction surveys indicated that a key element in ensuring that they are worthwhile is ensuring that the results are developed into a workable action plan. The action plan needs to include realistic timescales for implementation of the relevant actions and needs to allocate responsibility for action to a named individual or group of individuals. Finally the implementation of the plan should be formally reported through a suitable group or committee, for example, the senior management team or a suitable Governing Body sub-committee.

11.87 All of the institutions visited had established a formal complaints procedure for students. In addition, some institutions have established mechanisms for receiving suggestions from the student population in general, for example through the use of suggestion boxes.

Communication with students and other customers

Self-assessment questions
x.   Are students issued with a handbook describing relevant university procedures?
xi.   Does the institution have a web-site with administrative information for students?
xii.   Is the site controlled centrally or locally, and how are the data quality monitored and kept up-to-date?

| xiii. | Is the standard of communications to students regularly evaluated (for example, web, e-mail, posters and publications)? |
| xiv. | Are there policies for 'acceptable use' of e-mail for communications with the student population at large (both content and volume)? |

11.88   A number of mechanisms are utilised within the institutions visited for informing students of their obligations in using the student administrative services. These include:

- a Student Charter;

- student handbooks and guidance booklets;

- the prospectuses;

- posters; and

- the web and e-mail.

11.89   Most institutions produce their Charter, handbooks and guidance in paper form. However, there is increased use of the internet for publication of such documents. One of the institutions has ceased producing paper versions of many of its documents and now provides students with a credit card sized card which shows the web addresses of the various reference documents. This has been found to be more efficient in terms of keeping students up-to-date and has led to savings in terms of printing and distribution costs.

11.90   Approximately half of the institutions visited undertake some sort of monitoring of the overall standard of communications with students. One institution visited was carrying out a full review of this area with the help of specialist consultants. An early recommendation from this review relates to the need to re-design the institution's web-site utilising specialist site designers.

11.91   Most institutions control the contents of their web-site centrally. Some allow departments to design their own pages without central control, however. This policy is likely to lead to a range of styles which may make it more difficult for users to find their way around the site in the most efficient way. Conversely, devolved control may have advantages in that updating of the site may be more efficient. The key to ensuring that devolved control works effectively was considered to be the establishment of a framework of control within which the departments are required to operate. This could include:

- establishing the 'corporate style' which departments are required to adopt;

- policies on content and the level of detail to be provided; and

- policies regarding authorisation for the material to be published.

11.92   Most of the institutions visited had in place policies regarding the 'acceptable use' of e-mail for communications with the student population at large. In general, control is exercised over this area by only providing access to mailing lists through controlled sources, where the contents of the message will be checked for compliance with the institution's policy prior to being forwarded. Very few institutions

exercise direct control over the volume of e-mails sent out in this way; policies tend to apply to content only.

12 Further information and guidance

12.1 A number of sources of additional information were identified as part of the work on indicators of good practice. The following references are considered to be particularly helpful:

Source	Title
The Quality Assurance Agency for Higher Education	Pilot studies in benchmarking assessment practice
Perspectives, Volume 3, Number 2, Summer 1999	Benchmarking in university administration – a case study from the University of Copenhagen
Perspectives, Volume 3, Number 3, Autumn 1999	Benchmarking – is it worth it?
Perspectives, Volume 2, Number 2, Summer 1998	Benchmarking in student administration: an Australian university's experience
CIPFA 1996	Benchmarking to improve performance
www.innovnet.com/bench1.htm	The US 'innovations network' – provides a number of sources of information and links to other useful sites
www.cabinet-office.gov.uk/eeg/1999/benchmarking.htm and, www.efqm.org/	Public sector benchmarking project
CIMA publications www.cima.org.uk/	Practical Benchmarking: A Managers Guide to Creating Competitive Advantage
CIMA publications www.cima.org.uk/	Identifying Best Practice in Benchmarking

Annex A
Study methodology

Introduction

A1   The area of 'Registry Systems' was identified as a priority for a value for money study by the sector through a survey undertaken by the UK Value for Money Steering Group.

A2   The area of 'Registry' was recognised as having numerous definitions. Indeed the scope of 'Registry' activity differs significantly between institutions with the consequence that one institution's Registry function and definition of 'Registry Systems' may be less recognisable at another institution. Consequently, the Project Management Committee redefined the study as *the Management of Student Administration* which it was felt more clearly enunciated the nature of the study.

A3   To establish what the sector hoped to gain from the study, a questionnaire was sent out to 15 institutions who had assigned a high priority to the study. The replies from this questionnaire were used to develop terms of reference and a work programme for the study.

Terms of reference for the study

A4   The terms of reference for the study developed by the Project Management Committee from the questionnaires completed by HEIs are outlined below:

- the presentation of cameos of best practice in student administration drawing on the experiences of participating institutions;

- consideration of customer groups and identification of policies and practices in provision of customer services;

- consideration of key problems faced by institutions in the area of student administration and the identification of any solutions or improvements devised by HEIs; and

- the identification of key benchmarks for student administration and collection and comparison of practices across institutions.

Participation in the study

A5   The study has been carried out with the assistance and support of the higher education sector and in particular:

- visits to obtain a detailed insight into the student administration systems at 11 pilot HEIs;

- completion of questionnaires providing background information on the student administration function and the problems which it was hoped that the study would address;

- discussion of the key objectives of the student administration function, responding to the specific questions devised by the Benchmarking Working Group;

- contribution of information on specific points of good practice in operation; and

- participation in a 'Benchmarking Working Group'.

A6   A Project Management Committee was formed to give further consideration to the issues raised.

A7   Sector organisations also participated by commenting on the issues raised. They included Universities UK (formerly the Committee of Vice-Chancellors and Principals), the Standing Committee of Principals (SCOP), the Association of Heads of University Administration (AHUA) and the Academic Registrars Council (ARC).

Annex B
Project group members and project staff

Membership of the UK VFM Steering Group

Professor David Wallace (Chair)	Vice-Chancellor, Loughborough University
Jim Addison	Director of Estate Management (now retired), University of Birmingham
Richard Aveling	Financial Controller, University College Northampton
Professor Christopher Carr (appointed May 2000)	Principal, St Martin's College
Professor Brenda Costall (resigned February 2000)	Deputy Vice-Chancellor, University of Bradford
Annie Kent (appointed May 2000)	Assistant Vice-Chancellor and Director of Finance, Middlesex University
John Lauwerys (appointed October 1999)	Secretary and Registrar, University of Southampton
Rosalyn Marshall (appointed May 1999)	Vice-Principal, Queen Margaret University College
James O'Kane	Registrar, Queen's University of Belfast
Dr Kate Pretty (resigned May 1999)	Principal, Homerton College, Cambridge
Bill Slade (resigned May 1999)	Vice-Principal, Kings College London
Ian Starkie (resigned February 2000)	Director of Finance, Staffordshire University
Professor Peter Townsend (appointed June 1998)	Pro Vice-Chancellor (Administration), University of Wales Swansea
Peter West	Secretary, University of Strathclyde

Membership of the Project Management Committee

James O'Kane (Chair, appointed February 2000)	Registrar, Queen's University of Belfast
Professor Brenda Costall (Chair, resigned February 2000)	Deputy Vice-Chancellor, University of Bradford
Richard Aveling	Financial Controller, University College Northampton
Dr David Fletcher	Registrar & Secretary, University of Sheffield

Membership of the Benchmarking Working Group

Dr Martin Lowe (Chair)	University Secretary, University of Edinburgh
Jon Bursey	Registrar, University of Bath
Donald Cattanach (Consultant)	former Director of Registry, University of Edinburgh
Keith Jones	Registrar, University of Nottingham
Shelagh Legrave	Director of Finance, University of Surrey Roehampton
Maxine Penlington	Secretary and Registrar, University of Central England in Birmingham
Brian Salter	Deputy College Secretary and Academic Registrar, Kings College London
Shelagh Wheelans	Academic Registrar, University of East Anglia

VFM project staff

Brian Baverstock – SHEFC

Brian Campbell – HEFCE

Ian Gross – HEFCE

Leigh Keirnan – SHEFC

Carla Lyne – HEFCW

Rob Rogers – HEFCW

Rebecca Taylor – HEFCE

Annex C
Contributing higher education institutions

Pilot institutions

Bath Spa University College

Coventry University

University of Durham

University of Surrey Roehampton

University of Wales College, Newport

University of Nottingham

St Mary's College

University of St Andrews

University of Stirling

Staffordshire University

University of Wolverhampton

Other contributing institutions

University of Birmingham

Cardiff University

University of Derby

Lancaster University

University of Leeds

Liverpool John Moores University

Napier University

University of Newcastle upon Tyne

University of Reading

Rose Bruford College

University of Sheffield

Annex D
Glossary

AHUA	Association of Heads of University Administration
ARC	Academic Registrars Council
HE	higher education
HEFCE	Higher Education Funding Council for England
HEFCW	Higher Education Funding Council for Wales (now the Higher Education Council of Education and Learning Wales)
HEI	higher education institution
HESA	Higher Education Statistical Agency
JISC	Joint Information Systems Committee
MIS	Management Information Systems
SHEFC	Scottish Higher Education Funding Council
UCAS	Universities Central Admissions System