In the field of total quality management (TQM), the term "customer" has been redefined to include all stakeholders, people who have an interest in the organization and its activities, from traditional customers to employees and society as a whole. The stakeholders of an academic library include: students, academic staff, university and library support staff, university and library managers, the government, society (local, regional, national, and international), the international research community, and posterity. Two figures show the criteria for the European Quality Award (EQA), a prestigious prize for which companies across Europe compete each year, and a quality management map, which illustrates how the elements of quality management fit together and how they can be applied to libraries and information services. The quality management map has four stages: (1) Inputs—total commitment, management responsibility, stakeholder requirements, quality assurance, quality management system and standards, and resources; (2) Processes—process control and process activities; (3) Outputs and Outcomes—products and services and use of products and services; and (4) Review and Improvement—zero defects, inspection and test, continuous assessment and improvement, non-conformance control, conformance to requirements, and corrective action. Another quality methodology also measures key dimensions of service as seen by the customer: reliability, assurance, tangibles, empathy, and responsiveness. Several other research projects in quality management in libraries are discussed. (Contains 11 references.) (SWC)
Quality Management in Libraries

by Peter Brophy
In his 1994 bestseller *Organizing for success*, Robert Waterman suggested that there are two characteristics of successful organisations. They

- 'are better organized to meet the needs of their people'

and

- 'are better organised to meet the needs of customers'.

Traditional quality management has concentrated on the second of these, the customer, and various quality gurus have expounded at length on the need for an absolute concentration on customer needs. Indeed one of the classic definitions of quality is 'conformance to (customer) requirements'.

It is noticeable, however, that in recent years the debate has shifted from a narrow focus on the end-user of the product or service, to a much broader concern with meeting the needs of all those who have an interest in the organisation and its activities, the stakeholders. The people who work for an organisation are customers of one another, and form part of the quality chain, but they also have a direct interest in its success or failure - their jobs may depend on it. Society in general has an interest, which may range from a concern that an industrial plant does not pollute the environment to an interest in ensuring access to national information resources through the public library system. An academic library might list among its stakeholders,

- students
- academic staff
- university support staff
- library managers
- library support staff
- university managers
- the government
- society: locally, regionally, nationally and internationally
- the international research community
- posterity

Today's concerns in the field of quality management recognise that only by redefining the term *customer* to include all these groups can the ultimate aim of *Total Quality Management (TQM)* be achieved. John Crawford of Glasgow Caledonian University is speaking later about his work in this area.

In this paper I want to refer particularly to a study called 'Quality Management in Libraries' which we have just completed at the University of Central Lancashire, but I also want to place that study in a wider context.

By way of introduction I would like to draw attention to the criteria used in judging the European Quality Award (EQA), which is a prestigious prize for which companies across Europe compete each year: the first winner was Rank Xerox in October 1992. The Malcolm Baldrige Award is the US equivalent. The EQA award criteria provide a very useful way to summarise the concerns of

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**Figure 1**

The European Quality Award

- **Leadership** 10%
  - People Management 9%
  - Policy & Strategy 8%
  - Resources 9%

- **Processes** 14%

- **Customer Satisfaction** 20%
  - Impact on Society 6%

- **People Satisfaction** 9%

- **Business Results** 15%
  - Resources (50%)
  - Results (50%)
quality management, and many organisations use them to test their own achievements as they move towards TQM (Figure 1).

The criteria are split into two groups, Enablers and Results, each of which contribute 50% to the overall score for the Award. Reading from right to left, it will be seen that Business Results as such count for only 15%. Leading to Business Results are three important areas, People Satisfaction, which refers to staff, Customer Satisfaction, and the impact on Society of the organisation. Those impacts arise through Processes, the quality management of which contributes just 14% to the total. In their turn Processes depend on People Management, Policy & Strategy and Resources. The whole depends on good Leadership. As a succinct introduction to TQM, the EQA is hard to better. But what does all this mean for libraries and information services?

Before turning to current research it is important to acknowledge the impact of good practice in quality management on libraries and information services of all types. In the public library field, the disappointing Keys to success (OAL, 1990) manual, which was meant to usher in a new era of systematic performance measurement for public libraries, was overtaken by the imposition of the government’s Citizen’s Charter (1991) and the work of the Audit Commission. Public libraries rose to this challenge, and used the opportunity to develop charters, standards of service and methods of measuring quality which have had a real impact on the service received by their users. A number of public libraries have been awarded Charter Marks based on improvements in service to customers. While the centralist Audit Commission approach remains strong, it was interesting to note that the recent Public Libraries Review conducted by Aslib for the Department of National Heritage (1995) recommended ‘a move away from...mechanistic standards with an emphasis on population, area and quantity and towards the creation of active, service-centred standards developed through a people and provider partnership’. Academic libraries have been influenced by the requirements of the Higher Education Funding Councils and the Higher Education Quality Council on their institutions, but have been proactive in developing performance measures: the recent publication The effective academic library (HEFCE, 1995), which is featured later in this conference, is an important further step forward. In the industrial and commercial sector, as a recent report for the British Library from Sylvia Webb illustrates (1995), the impetus often comes from the parent company and the number of LIS units with accreditation to the international quality assurance standard ISO 9000 is steadily rising - it is an interesting curiosity of Sylvia’s study that firms in the North of England are ahead of those in the South in their application of quality management!

Against that background, a number of research studies are taking place to try to improve our understanding of how quality management can best be applied to libraries and information services. At the University of Central Lancashire, where the Library holds ISO 9000 accreditation, the Centre for Research in Library and Information Management (CERLIM) has just completed two studies, and has an involvement in a number of others. The first of the recent studies was a wide-ranging appraisal of quality management and its application, including the role of performance measurement within the quality management framework. This will be published by Gower in October under the title Quality management for information and library managers (Brophy, 1995). The second recently completed study, which was funded by the British Library Research & Development Department (BLR&DD), was essentially a ‘mapping’ exercise which has enabled us to put forward a framework to show how the elements of quality management fit together, and how they are being and can be applied to libraries and information services. The basic map is shown in Figure 2.

We used the process or systems model of organisations, which is also the basis of the European Quality Award, to explore how the different concepts of quality management have been applied to industry and to the service sector in general, and then to look at their application to LIS. There is not time in this short presentation to detail all of these elements, but I will highlight just a few.

Management Responsibility means that management is responsible for establishing a policy to meet company goals, including the meeting of stakeholder requirements, and for making sure that the policy is implemented effectively. Management must also ensure that the policy is understood by all staff. At Marks & Spencer, for example, senior store managers will come into the shop regularly to talk to staff, observe how customers are being served, resolve any problems which have arisen. Resources need to be managed in the quality company: this is not just internal management of staff, but includes the procedures in place to ensure that incoming raw materials are of the correct specification. In manufacturing this is obvious: faulty components used in
aircraft manufacture or safety equipment could result in the loss of company reputation, profits, loss of life or all three. In libraries we are in the hands of publishers and database suppliers, and the issue of ensuring that incoming materials meet the desired specification is a major one. The initiative of the Centre for Information Quality Management (CIQM) which is trying to introduce database labelling is interesting in this respect.

Moving on, the quality of Processes is important. Much quality management in industry has concentrated on this aspect, but it is of great importance for services and libraries too. The process used to acquire interlibrary loans, for example, must be designed to achieve the objective both efficiently and effectively. What is more it must be monitored, which is where Process Control comes in.

Processes lead to Products and Services, and the use of those products and services. In services, there is the curious situation where the production of the service and its use may occur simultaneously, as where a user asks for and is given information at an enquiry desk. Other situations, such as the processing of new books, lead to separate end products and separate use. However, the quality of the service received clearly depends on all these parts of the overall process being well managed. Users will form a view on how satisfactory the overall service is, based on their interactions with the specific products or services they encounter, so the management of those interactions is crucial - a point I will return to.

Inspection and Test sounds very industrial, but in fact is carried out all the time in services. One of the problems, however, is that customers of services often do the testing themselves - because of the immediate interaction between the service delivery and the customer. A key question is whether the library is also undertaking testing itself, or whether customers are left to draw their own conclusions. Techniques used by libraries range from formal audits and assessments through to unobtrusive observation. Zero Defects is another concept that betrays its manufacturing origins, but is equally applicable to services: McDonalds, for example, works on the basis that only 100% customer satisfaction will do and continually reinforces that concept with its staff. Nonconformance Control and Corrective Action are two linked concepts which form one of the pivotal ideas of quality management. In any organisation things will sometimes go wrong: the key issues are then - what is done to put them right immediately, to turn customer dissatisfaction into at least grudging satisfaction and if possible delight (so, for example, when the required book is not immediately available is an alternative offered?) - this is Nonconformance Control. More importantly, is action taken to change the system so that the problem does not recur? - for example, do library staff obtain the reading list from lecturers and make sure the books are in stock, or is the loan period for that item reduced to improve its availability? That is Corrective Action.

This is a very brief skim through the quality management map. Since the BLR&DD identified quality management as one of its priority areas, a considerable number of other studies have been funded and I would like to refer to some of these. As I have noted, Glasgow Caledonian University is studying stakeholder perspectives of the academic library, while Sheffield and Loughborough Universities have collaborated on a study entitled 'Quality Management Map'.
Management and Public Library Services’ - the presentation is on Sunday evening. An ongoing study at Loughborough University is examining the role of benchmarking, using the expertise of John Brockman and Alan Gilchrist in a project led by Professor Margaret Evans: again, Margaret is talking about this later in the conference. Brockman and Gilchrist are also undertaking work in close collaboration with Japanese colleagues examining corporate excellence and TQM, and exploring the relationship between information management and those concepts.

A great deal of work has been done in LIS on measuring user satisfaction. In general this has been disappointing, partly because overall measures of satisfaction rarely point the way to action to achieve improvement, partly because it is very difficult to quantify in reproducible ways the softer aspects of satisfaction, and partly because the relationship between satisfaction and demand is not well understood. Work undertaken at Lancaster University some years ago led to the suggestion that demand may be adaptable to the extent that overall user satisfaction tends to remain constant (Buckland, 1975), and I noticed that the subject cropped up again recently on one of the e-mail lists.

Our own research at CERLIM has led us to explore in some detail the potential of a number of techniques used in other service sectors to assess customer satisfaction. The SERVQUAL methodology developed by Zeithaml, Parasuraman and Berry in the United States for use with service industries (1990) is particularly promising. We have examined this particular methodology in CERLIM, and it is also being explored in a BL funded project at the Queen’s University, Belfast. In brief, SERVQUAL is based on measuring the five key dimensions of service as seen by the customer. These are:

**Reliability:** Do staff neglect to discharge books I return? Is the right interlibrary loan obtained? Does the photocopier work?

**Assurance:** Are staff knowledgeable about the service? Are they courteous? Do they convey a sense of trust and confidence?

**Tangibles:** is the service attractively presented? Are staff appropriately dressed? Does the equipment they use appear to be up to date and in good working order?

**Empathy:** do staff appear to care about the customers? Do they mean what they say? Do they see the customers’ point of view?

**Responsiveness:** are problems put right quickly? Do staff put themselves out to sort out problems even if they are not their fault?

From the initial letters these dimensions are sometimes known as the RATER set: they move us away from performance measurement based on counting, whether issues or seats or books, to quality management based on identifying what matters to customers and responding to those concerns.

Interestingly, when the Audit Commission commissioned MORI to carry out a survey of satisfaction with public library services, users rated ‘an inviting atmosphere’, ‘helpful staff’, ‘comfortable seating’ and ‘attractive appearance’ among their major criteria (Sumison, 1993), findings which support the RATER model. The SERVQUAL methodology has been used in the EC funded EQUIP project (Gilchrist, 1994).

In closing I want to mention one other area of research activity. The European Commission’s Libraries programme is funding four projects in the area of performance measurement, each concerned with the development of an IT based system to aid decision-making. The conference programme contains presentations on each of these. The EQLIPSE Project, for which CERLIM is the Co-ordinating Partner in a ten-member consortium spanning seven countries, is attempting to develop a package which would incorporate quality management as well as performance measurement, for example by using hypertext to link together planning and operational documentation with customer satisfaction and operational analyses. As this project has been running for only six months out of a two-year anticipated timespan it is too early to give results, but clearly the ability to handle quality management data efficiently and systematically is crucial to library managers.

Finally, we are currently undertaking a short scoping study under the Electronic Libraries Programme (ie. the Follett Report’s IT Implementation) of the area of management information for the electronic library. A meeting is to be held next month to discuss the need for a study into measuring the performance of services which are delivered across the networks to end-users. When you bear in mind that the library may be no more than an enabler in this process, and that the successful library of the future may be the one whose users need to make least contact with it, you will recognise the complexities that face us in this area. The challenge will be to find ways to manage the quality of such services so as to ensure that our customers’ needs are being met: ‘conformance to customer requirements’ yet again.
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