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**B**est Practice Handbook for  
Australian University Libraries

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00/10

Anne Wilson

Leeanne Pitman

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Evaluations and Investigations Programme  
Higher Education Division



Department of Education,  
Training and Youth Affairs





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- University of Melbourne Library
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- University of Queensland Library
- University of Western Australian Library
- University of Wollongong Library

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## Introductory note

The need for a 'Best Practice Handbook' became evident during the investigation and site visits related to preparation of the EIP report 'Guidelines for the Application of best Practice in Australian University Libraries: Intranational and International Benchmarks' (Wilson, Pitman and Trahn, 1999). Many university library staff spoken to during visits expressed the need for a single, focussed forum for the location, updating and dissemination of information and new initiatives and programs related to the use of quality management frameworks and tools within Australia and overseas.

The establishment of a WWW version of this handbook will provide opportunities for ready updating and input, direct links and discussion in relation to the areas covered. The authors hope to see it develop as a dynamic and essential adjunct to library planning and development.

Suggestions for additional material and content, or comments in relation to the usefulness and future development of the handbook are welcome and should be directed to the authors.

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# Abbreviations and acronyms

AARL	Australian Academic and Research Libraries
ABN	Australian Bibliographic Network
ACLIS	Australian Council of Libraries and Information Services
ALIA	Australian Library and Information Association
AQA	Australian Quality Awards
AQC	Australian Quality Council
BSC	Balanced Score Card
CASL	Council of Australian State Librarians
CAUL	Council of Australian University Librarians
CAVAL	Cooperative Action for Victorian Academic Libraries
CSF	Critical success factors
CHEMS	Commonwealth Higher Education Management Services
EAL	Effective Academic Library
IFLA	International Federation of Library Associations
ILL	Inter library loan
ISO	International Standards Organisation
KPI	Key performance indicator
KRA	Key result area
LIS	Library and information services
MIEL	Management Information for the Electronic Library
QULOC	Queensland University Libraries' Office of Cooperation
SCONUL	Standing Conference of National and University Libraries
SQMS	Scottish Quality Management System
UNILINC	A not-for-profit organisation which coordinates the provision of library technologies in the higher education sector with the aim of saving costs and facilitating resource-sharing
UNISON	University librarians in the State Of New South Wales
U21	Universitas 21
WAGUL	Western Australian Group of University Libraries

## CAUL MEMBERS

ACU	Australian Catholic University
Adelaide	University of Adelaide
ADFA	Australian Defence Force Academy
ANU	Australian National University
Ballarat	University of Ballarat
BOND	Bond University
Canberra	University of Canberra
CQU	Central Queensland University
CSU	Charles Sturt University
Curtin	Curtin University of Technology
Deakin	Deakin University
ECU	Edith Cowan University
Flinders	Flinders University of South Australia
Griffith	Griffith University
JCU	James Cook University
La Trobe	La Trobe University
Macquarie	Macquarie University
Melbourne	University of Melbourne
Monash	Monash University
Murdoch	Murdoch University
Newcastle	University of Newcastle
NTU	Northern Territory University
Queensland	University of Queensland
QUT	Queensland University of Technology
RMIT	Royal Melbourne Institute of Technology
SCU	Southern Cross University
Swinburne	Swinburne University of Technology
Sydney	University of Sydney
Tasmania	University of Tasmania
UNE	University of New England
UOW	University of Wollongong
UniSA	University of South Australia
USQ	University of Southern Queensland
UTS	University of Technology, Sydney
UWA	University of Western Australia
UWS	University of Western Sydney
VUT	Victoria University of Technology

# Glossary of terms

In undertaking the original 'Best Practice in Australian University Libraries' investigation one of the first things that became evident was the difficulty associated with determining agreed definitions of major concepts and terms. This glossary provides a number of accepted definitions for the key terms used throughout this handbook. Additional definitions and comment are provided within each of the major sections.

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## Benchmarking

Library benchmarking has been described as 'a friendly competitive intelligence activity' (Gohlke, 1997, p. 22). In trying to provide a universally acceptable definition of benchmarking it is useful to describe the characteristics of benchmarking. Although there are different types of benchmarking and various models or approaches have been tried and tested, a general consensus as to what benchmarking is, and what it involves, has gradually emerged. The language which is used may vary but the principles are the same:

- A structured or systematic approach to finding improvements and implementing best practice;
- A continuous process of measuring products, services and practices against leaders;
- A focus on processes (individual processes, which are deemed vital to customer satisfaction, are suitable choices for benchmarking programmes);
- An emphasis on learning. Benchmarking should not be regarded simply as a comparative exercise, or be totally results oriented (Garrod & Kinnell, 1996, pp. 142–143); and
- A foundation of sound measurement and comparison.

Benchmarking involves examining current services, identifying inefficient practices and processes, and learning from those who have achieved success. It is 'a formal process of measuring and comparing an existing process, product or service against that of recognised top performers' (Allen, 1993, p. 123).

---

## Performance measurement

There has been little agreement to date on a standard definition of what is meant by the term performance measurement. 'In the ever-growing literature on library performance measurement, no standardisation of terminology has been established' (Cullen, 1995, p. 438). Some current definitions include:

'The results of measurement can be used to evaluate the performance of a library, and thereby determine whether or not it is effective' (Lynch, 1983, p. 388).

'performance measurement is comparing what a library is doing (performance), with what it is meant to do (mission), and wants to achieve (goals). The extent to which goals are reached can be determined by using performance indicators' (Boekhurst, 1996, p. 279).

'Comparing what a library is doing (performance) with what it is meant to do (mission) and wants to achieve (goals). Performance is the degree to which a library is achieving its objectives, particularly in terms of users' needs (IFLA, 1996).'

'Performance measurement involves the evaluation of an activity, program or service in relation to its appropriateness, effectiveness and efficiency. Performance indicators are developed to measure these criteria.' (Schmidt, 1990)

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## Quality

Generally accepted definitions of quality include:

'Quality ... means a predictable degree of uniformity and dependability at low cost, with a quality suited to the market' (Deming 1986);

'the extent of discrepancy between customer's expectations or desires, and their perceptions of the service' (Zeithamal 1986);

'The totality of features and characteristics of a product or service that bear on the library's ability to satisfy stated or implied needs' (ISO 11620).

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## Best practice

Best practice and quality are often used synonymously, and, whilst there are similarities, best practice has engendered its own definitions. The EIP 'Best

practice for Australian university libraries' project team has adopted the Australian Best Practice Demonstration Program (ABPDP) definition that defines best practice as:

The pursuit of world class performance. It is the way in which the most successful organisations manage and organise their operations. It is a moving target. As the leading organisations continue to improve the 'best practice' goalposts are constantly moving. The concept of continuous improvement is integral to the achievement of best practice. (ABPDP 1994).

# How to use this handbook

This handbook is intended for use in a number of ways:

- As a quick reference guide to key best practice terms and concepts (Glossary and individual sections);
- As a means of updating and exploring current knowledge and insight into best practice activity in the areas of benchmarking, performance measurement, quality management and training (Current Opinion and individual sections);
- As a starting point for university libraries:
  - wishing to engage in benchmarking (Section 1)
  - reviewing current and determining future use and applicability of performance indicators and measures (Section 2)
  - exploring the use and applicability of current quality management frameworks (Section 3)
  - investigating staff training options in any of the above areas (Section 4);
- As a source of key contact information (individual sections useful sources);
- As a key list of useful sources and reading in university library benchmarking, performance measurement, quality and best practice, training and related areas (individual sections useful sources); and
- As a means of disseminating ongoing and new initiatives and programs (via the WWW version of this handbook).

Suggestions for additional material and content, or comments in relation to the usefulness and future development of the handbook are welcome and should be directed to the authors (see: Introductory Note).



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# Introduction/context

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## Origin and background to the handbook

Today many Australian academic libraries are actively involved in the implementation of quality frameworks and are utilising quality management tools such as benchmarking and performance measurement. However, much of what is happening within these libraries is not well known nor communicated outside the institution. There is generally a lack of published literature within the Australian scholarly journals on these topics, with the result that libraries may either be duplicating effort in the development of performance indicators, undertaking projects in isolation unaware of work already being done elsewhere, or are being deterred from action by the considerable task of investigating what is available and appropriate for the institutional situation. Time factors are critical within university libraries and there is a certain level of perception that it is all too hard to be worth the effort. Consequently, there are obvious benefits in a greater sharing of experience and ideas, and in the development of some kind of practical hands-on guide.

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## Role of the Council of Australian University Librarians (CAUL)

The Council of Australian Librarians (CAUL) has been concerned to facilitate access by Australian university libraries to information which would assist them with the implementation of best practice initiatives. In 1998, the CAUL Executive developed a proposal to the Department of Education, Training and Youth Affairs (DETYA) for funding to carry out an investigation into such areas. This proposal was accepted, and resulted in the conduct of an Evaluations and Investigations project (EIP) which was undertaken between October 1998 and July 1999. This handbook is a direct outcome of that project.

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## **EIP Best Practice Project**

The project 'Best Practice for Australian University Libraries' investigated current 'best practice' activities within Australian academic libraries and compared these with those in selected overseas countries. 'Best practice activities' were considered to encompass the implementation of quality frameworks, and the use of benchmarking and performance measurement as tools for the continuous improvement of products, processes and services. Staff competencies required for the effective application of these frameworks and tools were also investigated.

Through a combination of surveys, site visits and an extensive review of Australian and overseas literature on the topic, the project team were able to evaluate the extent of implementation of quality frameworks in Australian academic libraries, and the degree and range of use of quality management tools such as benchmarking and performance measurement.

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## **Methodologies and exemplars identified**

The project identified a number of strategies for the pursuit of quality/best practice in Australian academic libraries, through a review of the literature, discussion of the survey findings and the inclusion of Australian and overseas case studies. Evaluation of currently available methodologies for library benchmarking, academic library performance indicators, the applicability of quality management principles to academic library management, and the application and usefulness of library staff competencies were also been addressed. Much of this work is included in the manual.

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## **Manual and contents**

To enhance the practical value of the project, it was decided that guidelines for the application of best practice would be developed in the form of a practical manual which Australian academic libraries could use to assist them in implementing 'best practice' initiatives.

Many libraries are deterred from implementing initiatives in regard to benchmarking, performance indicators, and quality frameworks by the perception that it is too costly to investigate the appropriate applications for their circumstances. Since there is a wealth of experience currently available and continuing to come on stream within Australasia and internationally the authors decided it would be an effective investment in the better management

of Australian university libraries to make up to date information and advice easily available and updateable. The information in the handbook is particularly relevant for libraries who have done little in this area but also for the more experienced institutions who wish to keep up to date or to promote an application which may be new to them.

# Section 1 Benchmarking

*This section provides the reader with a practical step by step approach to benchmarking. It gives a brief overview of the adoption of benchmarking by the library sector, terminology and the process of benchmarking, a description of some of the better known types/models of benchmarking and how they work, typical processes for benchmarking, lessons for success and a detailed list of benchmarking projects undertaken by Australian academic libraries.*

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## 1.1 Some background context

Prior to 1995, early attempts at benchmarking were less likely to focus on a particular process or sub process and lacked the systematic approach which characterises formal benchmarking. The similarity between the formal and informal approach has been in the philosophy behind the activity—the desire to improve products, processes and services by comparing performance with others, usually but not always in the same industry.

Since 1995 there has been a substantial increase in the number of academic libraries using benchmarking successfully in the formal sense as a tool for continuous improvement. Although this has not been accompanied by a corresponding increase in the literature on library benchmarking, it does indicate an increase in the focus on quality improvement generally, and a desire on the part of librarians to undertake a more systematic and rigorous approach to the improvement of products, processes and services perhaps also due to the need to find new ways of improving effectiveness in the face of constraints on resources, and increasing demands on services. LIS managers need new tools to help in the management of change, and are under pressure to operate like businesses. Interest in benchmarking forms part of the general “quality imperative” which aims to find, and use, new ways to measure and improve customer satisfaction’ (Kinnell, 1995, p 269).

In 1997 Annette Gohlke wrote ‘Librarians in all types of libraries are finding themselves in the position where they must build a solid and effective case on how their library adds significant value to the organisation or institution that pays the bills. An increased focus on efficiency requires an examination of work processes, points to the need to measure productivity and to look outside their own libraries to external sources for ‘best practices’ (p. 22). Librarians in the Australian academic community have echoed Gohlke’s sentiments with cost savings, increased cost efficiencies and process improvement featuring as the major reasons for engaging in benchmarking activity.

---

## 1.2 Terminology and description

### 1.2.1 Terminology

Although there are different types of benchmarking and various models or approaches have been tried and tested, a general consensus as to what benchmarking is, and what it involves, has gradually emerged. The language which is used may vary but the principles are the same:

- A structured or systematic approach to finding improvements and implementing best practice. Benchmarking provides an opportunity for an organisation to look at how other organisations are undertaking processes and to use that information as a stimulus to drive improvements;
- A continuous process of measuring products, services and practices against leaders;
- A focus on processes (individual processes, which are deemed vital to customer satisfaction, are suitable choices for benchmarking programmes);
- A learned and development process. It is also an ongoing process since organisations' needs are continually changing and the organisations they may compare with themselves are continually improving;
- Benchmarking is not a copying mechanism. It is a means of obtaining objective evidence about where an organisation is now in relation to other organisations, and how the differences are being achieved;
- Benchmarking should not be regarded simply as a comparative exercise, or be totally results oriented (Garrod & Kinnell, 1996, pp. 142–143); and
- A foundation of sound measurement and comparison.

*'Benchmarking involves examining current services, identifying inefficient practices and processes, and learning from those who have achieved success. It is a formal process of measuring and comparing an existing process, product or service against that of recognised top performers'* (Allen, 1993, p. 123).

In summary benchmarking is:

- Deciding what is important;
- Looking at how you do it now and how well you do it now;
- Learning from others how they do it;
- Applying what you have learnt in a way that leads to doing it better than before; and
- Doing it all over again.

### 1.2.2 Description

The literature on benchmarking is often confusing because the different types of benchmarking are not defined consistently. The easiest way to understand the various types of benchmarking is to separate the issue of who to benchmark against from how to approach benchmarking:

- Who
  - **Internal:** seeking out and replicating examples of best practice within an organisation.
  - **Competitive:** investigation of direct competitors.
  - **Industry:** comparison with non-competitors within the same industry.
  - **Generic:** comparisons with organisations outside one's own industry.
- How
  - **Numbers:** performance benchmarking or scoping, compares high level aggregate measures of performance like profit margins and return on investment.
  - **Processes:** process benchmarking compares discrete processes like product development, customer complaints handling, with the aim of improving performance. Process benchmarking is a very powerful change management tool. It is also the most commonly used methodology.

(For a more detailed look at models and methodologies see Part 3 below)

### 1.2.3 Necessary underpinnings

Before benchmarking can be implemented and any guarantee of a successful outcome promised, certain criteria must be in place/addressed within the organisation.

- *Commitment* is essential both from participants in the project and management.
- *Process thinking*—all staff have to stop thinking in terms of distinct functional areas and start thinking in terms of processes. Establishing cross functional benchmarking teams encourages this change.
- *Benchmarking methodology*—benchmarking works best when it is guided by a structured approach, which outlines the main steps and provides guidance for the team.
- *Involvement* in all aspects of the project by the participants.
- *Planning* is essential.

- *Training* to equip benchmarkers with the skills to:
  - analyse processes;
  - collect and analyse data;
  - develop performance indicators and measures;
  - manage projects;
  - liaise with other organisations and communicate, and where appropriate implement findings;
  - apply continuous improvement and benchmarking tools such as:
    - Flowcharting
    - Cause and effect diagrams
    - Brainstorming
    - Performance gap analysis
    - Work mapping
    - Imagineering
    - Multivoting
    - Surveys, questionnaires, focus groups.
- *Continuous improvement culture*—successful organisations operate in an environment where improvement strategies are integrated into the way things are done.
- Benchmarking is a *gradual* process that takes time and happens in small steps.
- The project chosen must be *meaningful* to the library and fit in with its *strategic plan*.

#### 1.2.4 Why benchmark?

There are a number of reasons for using benchmarking as an improvement tool:

- To facilitate dramatic process improvement;
- As part of an ongoing continuous improvement mechanisms;
- To ensure that plans are being carried out;
- To focus evaluation on the most useful areas;
- As part of change management processes;
- To justify the existence or value of the service;
- To demonstrate areas of merit to stakeholders;
- To develop relationships/partnerships with other organisations; and
- To assess aspects of management (including the level of management competencies).

### 1.2.5 Benefits

There are a number of benefits associated with the use of benchmarking as an improvement tool:

- Improved understanding of work flows, processes and procedures;
- Continuous improvement in work flows, processes and procedures;
- New ideas leading to continuous improvement or breakthrough change;
- A view of work flows, procedures and processes in other organisations;
- Higher regard of staff for library clients;
- Higher regard of library clients for staff;
- Pride in performance;
- Participation in decision making;
- Breakdown of traditional barriers between branches and management and staff; and
- Improved productivity.

---

## 1.3 Models and methodologies

### 1.3.1 Process benchmarking

(Process benchmarking is by far the most common and well-utilised model)

To implement benchmarking successfully, a well-structured methodology should be followed. The benchmarking process is normally documented as a series of steps which may range from six to twelve depending on the way each step is described and the level of detail included. Whilst language may vary from one text to another, the following components have been distilled from the literature as describing a standard methodology to be applied to a benchmarking project:

1. Recognise the need for change, gain commitment and set the scope
2. Identify process to be benchmarked (subject) and how the process will be performed (approach)
  - What services and processes are strategically important for the organisation (what services clearly support the objectives spelt out in the organisation's strategic plan)?
  - For the chosen services or processes:
    - what are the inputs and outputs
    - who are the customers and suppliers



- How well are the customers satisfied?
  - Can service quality, cost or response time be improved?
    - what would most benefit customers
    - what would most make jobs easier, more efficient or more effective?
3. Select team and train members
    - Identify the people involved in the process or service provided;
    - Form a team including key staff members from each area involved; and
    - Train in benchmarking, customer surveying, process analysis.
  4. Analyse own processes within the broad area already defined
    - Define and understand the process to be benchmarked;
    - Identify key performance measures and current performance against them;
      - collect process data;
    - How does performance compare to what we currently know about 'best practice' levels; and
    - Where are the greatest opportunities for improvement?
  5. Establish (call for) benchmarking partner(s)
    - Identify like organisations, other providers of similar services and/or users of similar processes, and known 'best practice' providers of services who can be used as a model (electronic databases, professional associations, major suppliers, major customers, calling for expressions of interest through email discussion lists etc, can all assist in partner identification);
    - Plan what data you will need for a proper comparison;
    - Seek background information and process data;
    - Analyse and compare data against own internal process;
    - Finalise partner(s) and make contact; and
    - Conduct visits and gather data.
  6. Analyse results
    - Calculate measures and define within partner organisations, practices in use in own organisation;
    - Compare values and identify differences;
    - Quantify effect of difference in practices and measures between own organisation and partners; and
    - Relate quantifiable differences to the practices employed and determine which are significant to the goal of improving the benchmarking process;
      - what parts of the processes can be eliminated or simplified
      - how can we reduce delays and wasted materials and effort

- which are the critical activities which add value for the customer? Can they be sped up, or made more effective or delivered more efficiently
- beware of 'We've always done it that way'.

#### 7. Develop action plans

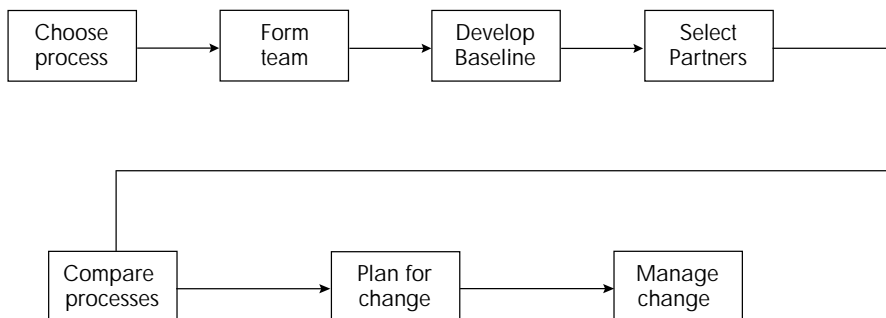
- Which alternative practices identified by the team have the best chance of working, the greatest impact on key measures and are visible in their effect;
- Does the implementation require the approval and/or cooperation of anyone else? Plan communication and consultation with all involved;
- Determine cost effective means of achieving desired improvement in benchmarked process and produce plan to be used to implement the improvement;
  - involve the entire work group in making the changes; and
  - implement training and changes to procedures to hold the gains.

#### 8. Implement and monitor;

- Put action plan to work and improve process;
- Measure the improvement and identify causes, if any, for differences between expected level of improvement and level attained; and
- Monitor the key performance measures to determine whether gains have been made and are being held.

#### 9. Benchmark again if necessary.

- Move on to the next benchmark target; and
- Re-benchmark previous targets periodically—others are moving ahead too.



(For a more detailed explanation of the steps above, readers are referred to the *Benchmarking Self-Help Manual: Your Organisation's Guide to Achieving Best Practice* 1995, 2nd edn, Australian Government Publishing Service, Canberra.

Benchmarking Plus website [http://www.benchmarking\\_plus.com/PrB.html](http://www.benchmarking_plus.com/PrB.html)

### 1.3.2 Performance benchmarking (from the Benchmarking Plus site)

'Performance benchmarking is a collection of (generally numerical) performance information and making comparisons with other compatible organisations. It answers the question:

*What are the most important performance yardsticks and where do we rank, compared with others in our industry and other analogous industries?*

Ideally performance benchmarking is repeated over two or three years, so that progress can be effectively monitored.

#### Method

- Form syndicate
- Choose measures
- Collect data
- Analyse data
- Produce report
- Repeat annually.

Performance benchmarking can lead directly to improvements, but often it is an ideal pointer to specific processes that may be improved through in-depth study using process benchmarking' [See Benchmarking Plus [http://www.benchmarking\\_plus.com](http://www.benchmarking_plus.com) and the Australian Quality Council <http://www.aqc.org.au/websites> for more information].

### 1.3.3 Other approaches

Variations have been observed in the approaches to benchmarking applied within Australia, for example, by participants in programs under the auspices of the Commonwealth Higher Education Management Services (CHEMS) University Management Benchmarking Club, Universitas 21 and the Australian Quality Council Benchmarking Network. All of these, however, aim to achieve the rigorous and systematic approach which characterises formal benchmarking. In these instances, it has been necessary to vary the standard methodology because the exercises undertaken have usually been far broader in scope and not limited solely to quantitative, process based activities. In these exercises also, partner selection has, to a certain extent, been

predetermined by virtue of institutional membership of the organisations or benchmarking network.

Within the Australian university sector, the most recent benchmarking initiative is the McKinnon Walker/IDP Education Australia project funded by DETYA. The project aims to identify those measures or reference points needed to enable university executives to assess whether the university is making progress in a particular area or activity, either in relation to previous performance or in relation to peer universities. The challenge of the project has been to define more relevant benchmarks, to define these precisely so that any comparisons are of like-with-like, and to use the resulting benchmarks both to improve universities and to inform the public. The underlying motivations for the project are to provide universities with quality assurance indicators which have been developed specifically for the industry. There is also a desire to develop benchmarks which suit universities, rather than to have them imposed by an outside authority. The final meeting of the National Benchmarking Project was held in October 1999. The benchmarks formulated for Library and Information Services are as follows:

1. Library and Information Planning
  - Benchmark: Effectiveness of planning processes
2. Contribution to Key Objectives
  - Benchmark: Contribution to teaching learning
  - Benchmark: Provision of support for research
3. Collaborative Alliances
  - Benchmark: Effectiveness of collaborative alliances.

Each benchmark is categorised in terms of area, element, type, rationale, data sources, statement of good practice, and a five level rating scale.

It is anticipated that the Benchmarking in Universities manual will be available in both print and electronic form sometime in 2000.

Additional information about these organisations and their respective approaches to benchmarking is available from their websites which are referenced in the useful sources list at end of this section). For more information about Australian academic library participation in CHEMS, U21 and AQC benchmarking initiatives and corresponding activity on the international front, readers are referred to Wilson, A., Pitman, L. & Trahn, I. (in press), *Guidelines for the Application of Best Practice in Australian University Libraries: Intranational and International Benchmarks*. Canberra, Department of Education, Training and Youth Affairs, Higher Education Division, Evaluations and Investigations Programme.

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## 1.4 Applying benchmarking in the Australian academic library community

Much of the material included in this section has been provided by the Australian academic library community.

### 1.4.1 Partners

*Choice of partner* depends to some extent on the activity selected for benchmarking. To date, Australian academic libraries have engaged in benchmarking projects with the following partner types:

- other university libraries, primarily Australian;
- Universitas 21 (participating libraries from Australia, New Zealand, Singapore, China, Canada, USA, UK);
- CHEMS (participating libraries from Australia, Canada, Hong Kong, United Kingdom, Africa);
- state, national and TAFE libraries;
- non library partners such as enquiry services eg Student Union, Student Services, Personnel, Buildings and Grounds; and
- other industries eg law firms, pharmaceutical companies, Telstra, Australian Consumer Association, and a hospital through the Australian Quality Council Benchmarking Network.

*Partner identification* can occur through a number of avenues:

- institutional membership eg CHEMS or Universitas 21, AQC Benchmarking Network;
- activities initiated by consortia or groups such as WAGUL, UNILINC, and CAUL
- expressions of interest/invitations sought through discussion lists; and
- professional contacts, university alliances and internal quality coordinators.

The *level of partner involvement* will vary depending on role of partners eg as initiators or participants. It sometimes involves recording of data/information which is fed to an external consultant who collates, analyses and reports the findings. Completing questionnaires/providing information to the initiating library, followed by a site visit to observe procedures in practice, is the most common approach and fits most closely with standard benchmarking methodology.

The *choice of benchmarking methodology* will generally depend on institutional goals and objectives, size and structure and the type of process identified for benchmarking.

### 1.4.2 Processes suitable for benchmarking

There are a number of activities suitable for benchmarking. For the most part these are process-based activities. Benchmarking between library partners, where the standard benchmarking methodology is utilised, tend to be fairly specific in the choice of process/sub process and quantitative rather than qualitative. Specific processes or sub processes that have been benchmarked include:

- interlibrary loans;
- copy cataloguing;
- original cataloguing;
- shelving;
- acquisitions > cataloguing > processing;
- acquisition of core texts;
- document delivery;
- technical services throughput;
- library system costs;
- research support;
- information skills;
- materials availability;
- staff perceptions;
- customer satisfaction;
- organisational comparisons (initiated through U21);
- costing core processes (U21);
- university enquiry points; and
- Leading and managing improvement and change (through the AQC Benchmarking Network).

### 1.4.3 Reasons for benchmarking

There are a number of reasons for initiating and/or participating in a benchmarking project, from the very specific eg turnaround times to the more global 'achieve best practice'. The following reasons have been identified by Australian academic libraries:

- cost comparisons/to estimate unit costs
- reduction in turnaround times;
- reduction in error rates;
- establishing meaningful performance indicators/realistic output measures

- feasibility of collaboration to achieve cost savings and increased efficiency;
- investigate insourcing, outsourcing and collaborative opportunities;
- establish individual performance targets/self improvement;
- explore appropriate roles and activities for cataloguers;
- develop improved outcomes for customers;
- achieve process improvement/foster commitment to ongoing process improvement;
- pilot benchmarking/instill understanding of value of benchmarking for quality improvement/develop a culture of improvement and comparison/make improvements in performance and quality;
- as an instrument to achieve change/confirmation of direction/information exchange;
- identify, benchmark and achieve best practice/develop best practice model
- validation measure—potential to verify what is already known/identify and act on areas in need of improvement (CHEMS);
- develop statements of good practice (CHEMS); and
- as a framework for benchmarking of performance and quality (U21).

#### 1.4.4 Lessons for successful outcomes

The benefits of a benchmarking project often vary between different areas, and tend to be more successful in the areas with clearly defined processes in place eg cataloguing, compared to research services. The similarity of partners may also impact on projects. There may be less likelihood of achieving major improvements if partners are too similar, although the benefit here can be a confirmation that an organisation is on the right track. Difficulties in benchmarking qualitative processes have been highlighted eg gaining agreement on how to measure reference transactions can provide a qualitative challenge.

There are a number of lessons to be learnt from participation in benchmarking projects. Much may depend on differing priorities, and quite often on whether the library initiated or just participated in the project. The following criteria have been identified as essential for a successful project outcome:

- clearly defined objectives;
- full commitment from participants;
- use of effective external consultants where appropriate (not all projects use or require external consultants);
- selecting processes that have sufficient potential for improvement;
- effective use of existing knowledge and expertise;

- realistic timeframe (benchmarking often takes more time than participants anticipate);
- sufficient resources to achieve objectives in timeframe;
- clarification of terminology;
- sufficient time to follow up;
- understanding of benchmarking and a common view of processes before starting out;
- clear definition of expectations of project at the outset;
- two-way interaction;
- clear objectives and methodologies;
- effective internal promotion of the project;
- management support;
- partner involvement in developing a code of ethics;
- awareness of disclosure and expectations;
- consistency of methodology to ensure positive outcomes;
- methodology must be agreed and tested;
- information gathering process from all sides;
- participation of all partners in site visits and involvement staff actually working in the process/areas being benchmarked in the visits;
- compatibility between operations/processes; and
- impetus or desire to change operations/processes.

(For additional reading see Trahn, I. 1998, 'Common library benchmarking problems and how to overcome them,' In *Benchmarking Library Best-Practice for Performance Improvement (1998:Sydney)* Benchmarking Library Best-Practice, 23rd–24th November 1998, the Gazebo Hotel, Sydney, IES Conferences Australia, Chatswood, N.S.W).

#### 1.4.5 Benchmarking projects undertaken

(The following table contains information gathered from a comprehensive survey of benchmarking activity in the Australian and New Zealand academic library community. The survey was undertaken as part of a DETYA EIP "Best practice for Australian academic libraries" project. The survey results are current to December 1998)

PROCESS	INSTITUTION	CONTACT DETAILS
Acquisitions	VUT	No contact information
Acquisitions: curriculum texts and recommended readings	U/Wollongong	Traci Rice Traci_rice@uow.edu.au



Acquisitions; cataloguing; document delivery; research support	QUT	Jan Novak/Margaret Robertson j.novak@qut.edu.au m.robertson@qut.edu.au
Acquisitions>cataloguing> availability	NTU	Kaye Bartlett Kaye@library.ntu.edu.au
All library functions (CHEMS)	RMIT	Ainslie Dewe Ainslie.dewe@rmit.edu.au
All library functions (CHEMS)	Swinburne	Rose Humphries Rhumphries@swin.edu.au
All library functions (CHEMS)	U/Queensland	Jennifer Croud j.croud@library.uq.edu.au
All library functions (CHEMS)	VUT	Michael Reidy MichaelReidy@vut.edu.au
Cataloguing	Curtin	<a href="http://www.unilinc.edu.au/curtin.htm">www.unilinc.edu.au/curtin.htm</a>
Cataloguing	Murdoch	<a href="http://www.unilinc.edu.au/curtin.htm">http://www.unilinc.edu.au/curtin.htm</a>
Cataloguing	Murdoch	See QUT
Cataloguing	QUT	Anne Huthwaite a.huthwaite@qut.edu.au
Cataloguing	Southern Cross	Alison Ransome Aransome@scu.edu.au
Cataloguing	UWA	Shirley Oakley Soakley@library.uwa.edu.au
Cataloguing	UWS:M	James O'Brien j.obrien@uws.edu.au
Costing core processes (U21)	U/Melbourne	Tim Meredith t.meredith@lib.unimelb.edu.au
Customer satisfaction (U21)	U/Melbourne	Karen Kealy k.kealy@lib.unimelb.edu.au
Customer satisfaction (U21) Materials availability (U21)	UNSW	Isabella Trahn i.trahn@unsw.edu.au
Customer satisfaction (U21) Materials availability (U21)	U/Queensland	Jennifer Croud j.croud@library.uq.edu.au
Enquiry services	U/Wollongong	Felicity McGregor Felicity_mcgregor@uow.edu.au
Information Literacy and Reference Services	U/Ballarat	Leeanne Pitman l.pitman@ballarat.edu.au
Information skills	U/Queensland	University of Otago
Interlibrary loans	Curtin	Ed Willis Willise@boris.curtin.edu.au
Interlibrary loans	U/Newcastle	Sharon Howells Ulsdh@dewey.newcastle.edu.au
Interlibrary loans	UWA	Rita Matero Rmatero@library.uwa.edu.au
Leading & Managing Improvement and Change (AQC)	U/Wollongong	Margi Janti Margi_janti@uow.edu.au
Library system costs	USA	Linda Luther Linda.luther@unisa.edu.au

Manuscripts	VSL	Jock Murphy Jockm@slv.vic.gov.au
Materials availability (U21)	U/Melbourne	Karen Kealy k.kealy@lib.unimelb.edu.au
Organisational comparison (U21)	U/Melbourne	Angela Bridgland a.bridgland@lib.unimelb.edu.au
Reference services (informal)	NTU	Anne Wilson Anne.wilson@ntu.edu.au
Reference staffing (informal)	VSL	Leneve Jamieson Ljamieso@slv.gov.au
Shelving	Murdoch	Anne Greenshields Greenshi@portia.murdoch.edu.au
Shelving	UWA	Imogen Garner Igarner@library.uwa.edu.au
Shelving (informal)	Curtin	Ed Willis Willise@boris.curtin.edu.au
Space utilisation	U/Wollongong	Craig Littler Craig_littler@uow.edu.au
Stack retrieval	VSL	Heather Evans Heathere@slv.vic.gov.au
Staff perception	U/Melbourne	Angela Bridgland a.bridgland@lib.unimelb.edu.au
Structure and services	Lincoln	No contact information provided

For additional information on benchmarking, readers are referred to the Useful Sources list which follows. A number of benchmarking websites are included in the list many of these provide further readings and links to yet more sites.

## 1.5. Useful sources

### 1.5.1 Australasian sources

*Benchmarking Self-Help Manual: Your Organisation's Guide to Achieving Best Practice* 1995, 2nd edn, Australian Government Publishing Service, Canberra.

This manual was commissioned as part of the Australian Best Practice Demonstration program and is designed to explain 'what benchmarking is and how to do it'. Provides an introduction to the various approaches to benchmarking and a step by step guide to the process. Project guidelines provide a good source of useful planning material and help identify potential pitfalls. Whilst case studies focus in the main on manufacturing industries this manual is a good starting point for the novice.

Evans, A. 1994, *Benchmarking: Taking Your Organisation Towards Best Practice!*, Business Library, Melbourne.

A useful and readable guide to the fundamentals of benchmarking. Outlines the basics and provides a five step model to plan the project; form the teams; collect the data; analyse the data; take action.

Evans, A. & Coronel, P. 1999, *Benchmarking in Australia*,  
(<http://www.ozemail.com.au/~benchmark/>)

Homepage of Benchmarking PLUS. Provides links to a bulletin board, list of benchmarking books and other resources (courtesy of Amazon.com), and a best practice database providing access to information about best practice and benchmarking with a focus on Australia and New Zealand. Several articles for downloading including 'The nuts and bolts of benchmarking' which provides a comprehensive overview of benchmarking practice. In need of some updating, however a useful source of information hints—(refer to Nuts and bolts of benchmarking here).

Evans, A. ed, 1997, *International Benchmarking Sourcebook: A Complete Bibliography and List of Resources Needed for Benchmarking*, Melbourne, Alpha.

McKinnon Walker/IDP Education Australia, 1999, *Project to Trial and Develop Benchmarking Criteria*

This project is an initiative funded by DETYA, which aims to identify those measures or reference points needed to enable university executives to assess whether the university is making progress in a particular area or activity, either in relation to previous performance or in relation to peer universities. The Library and Information Services Working Party of this project identified 4 benchmarks which sought to answer the general question 'How would a Vice Chancellor know that the library/information technology service was performing relative to good practice?'

The draft manual 'Benchmarking in Universities' was circulated for comment in October 1999

Neumann, L. 1996, 'Benchmarking and the Library: report on current infrastructure and project work for improvement and comparative standards,' *Ex Libris: Newsletter of the University of Melbourne Library*, Issue 45, pp. 5–7.

In 1996, the University of Melbourne as part of its quality improvement program formed a 'Benchmarking Project Team' to identify, inform and provide training to staff involved in benchmarking activity. The aim was to draw together the strands that were currently in place with the key outcome being the recognition of staff that benchmarking as a methodology 'provides a way or method for ongoing improvement'. This article describes the process developed to encourage the adoption of benchmarking as a continuous improvement tool across the University of

Melbourne libraries, and provides a useful case study that illustrates how the methodology is being adopted for supporting ongoing development.

Robertson, M. & Trahn, I. 1997, 'Benchmarking academic libraries: An Australian case study,' *Australian Academic and Research Libraries*, vol. 28, no. 2, pp. 126–141.

Outlines a benchmarking project comparing acquisitions and cataloguing, document delivery and research support services between Queensland University of Technology and the University of New South Wales. Provides a useful insight into the development, methodology, implementation and outcomes of a major benchmarking exercise from the perspective of both the benchmarker (QUT) and the partner library (UNSW).

Trahn, I. 1998, 'Common library benchmarking problems and how to overcome them,' In *Benchmarking Library Best-Practice for Performance Improvement (1998: Sydney) Benchmarking Library Best-Practice, 23rd–24th November 1998, the Gazebo Hotel, Sydney, Key Performance Measures and Best-Practices for Superior Library Service & Efficient Internal Work Practices*, IES Conferences Australia, Chatswood, N.S.W.

Outlines current approaches to benchmarking both within Australia and overseas. UNSW have engaged in a number of benchmarking projects ñ this paper uses these experiences to explore issues including training/participation of staff, potential deficiencies and partner relations.

Wilson, A. 1999, *Benchmarking*, (<http://www.ntu.edu.au/admin/isd/qsdc/>)

In 1994, as part of the Australian Best Practice Demonstration program, NTU Quality and Staff Development Coordinator, Anne Wilson, initiated two benchmarking projects framed within the University Library's Best Practice in Research Information project. The first involved an examination of internal processes in the Library Purchasing, Cataloguing and Processing Branch. The second, which was conducted at a more informal level, involved a series of site visits to research/reference departments in academic libraries in the United States. These Web pages describe each project in detail, outline results and provide basic information about benchmarking, including links to several other key sites.

### 1.5.2 International sources

Association of Commonwealth Universities University Management Benchmarking Club, <http://www.acu.ac.uk/chems/benchmark.html>

The CHEMS approach is to ask participants to respond to a specially prepared framework of open questions on a process to indicate strengths and weaknesses, and to illustrate through current documentation. The

participants also provide contextual data in order to assess 'fitness for purpose' in what they are doing. The approach to marking (as in 1966) was based on the EQFM approach judging:

- *approach* (policy or technique and how 'fit' this was);
- *application* (extent to which it is applied); and
- *outcome* (how successful it was, how it is monitored and updated

An interim composite model of 'good practice' and reports formed the basis for a workshop. Identified 'Best in group' band of institutions are identified. A final report to members after the workshop includes

- a summary of workshop discussions including main issues; and
- key features of what members and assessors agree to be best practice. This is to be used as a self-assessment model using a simple 1–5 scale against each best practice element.

The management of library and information services was benchmarked in 1998.

Benchmarking Centre, <http://www.benchmarking.co.uk/>

Benchmarking Exchange, <http://www.benchmarking.org/>

Garrod, P. & Kinnell, M. 1995, *Towards library excellence: Best practice benchmarking in the library and information sector*, London, British Library Research & Development Division

Library Benchmarking International, <http://www.world-net/users/lbi/includes:>

- Collecting and analysing benchmarking data: a librarian's guide, Texas, LBI
- Conducting a preliminary benchmarking analysis: a librarian's guide, Texas, LBI
- Presenting benchmarking results: a librarian's guide, Texas, LBI

Standing Conference of National and University Libraries (SCONUL).

Benchmarking Group, <http://www.sconul.ac.uk/>

Beginning from a SCONUL sponsored Benchmarking Seminar at the end of 1997, a range of British university libraries undertook to pilot benchmarking activities in the area of Advice Services (reference including IT inquiries), Inter Library Loans, Information Skills, Counter Services and Integration with Teaching and Learning. As yet the results of their activities have not been published. As part of this project a handbook on benchmarking was to be compiled.

Third Northumbria International Conference on Performance Measurement in Libraries and Information Services, 27th–31st August 1999, Longhirst Management Centre, University of Northumbria at Newcastle (in press) Newcastle, Information North, 2000.

Proceedings of this conference include papers by Town (Benchmarking: Strife, Theft or Communion?); Voorbij (Benchmarking in Dutch Academic libraries); Hart et al (Benchmarking Advice Desks in Higher Education); Radcliff (Benchmarking with the Wisconsin/Ohio Reference Evaluation Program); Wilson, A. & Trahn, I. (Best Practice in Australian University Libraries: lessons from a national project).'

Town, S. 1996, 'Benchmarking as an approach to quality' in *BUOPOLIS 1: routes to Quality. Bournemouth, Bournemouth University Library and Information Services*, pp.71-79.

This definitive article is based on Town's own benchmarking experiences at Cranfield University's Shrivenham campus starting in 1993. Since the publication of this article Stephen Town has become the coordinator of the SCONUL benchmarking projects because of his position as the benchmarking expert on the SCONUL Advisory Committee on Performance Indicators.

**Universitas 21**, <http://222.universitas.edu.au/members.html>

## Section 2 Performance measurement

*The intent of this section is to provide the reader with some useful tips on how performance measurement can be used to improve the performance of the library. Terminology, description and models of the measurement process, characteristics and applications, difficulties/lessons to be learned are discussed. An extensive matrix of performance indicators by function/area of indicators published by CAUL, EAL, IFLA, ISO, SCONUL etc has been included to enable librarians to find available indicators for specific areas quickly and easily. Developmental work on indicators for the electronic library is also included.*

*Performance measurement in the context of the Australian academic library community is described (note this only covers activity to the end of the EIP survey period November—December 1998 and it is likely that further developments have occurred since then) and practical applications and priorities for development identified. The section ends with an extensive annotated list of both Australasian and overseas resources.*

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### 2.1. Terminology and description

#### 2.1.1 Definitions

The IFLA Guidelines state ‘Performance measurement means collection of statistical and other data describing the performance of the library, and the analysis of this data in order to evaluate the performance. In this context, performance is understood as the degree to which a library is achieving its objectives, especially in terms of users’ needs. A performance indicator is a quantified statement used to evaluate and compare the performance of a library in achieving its objectives. The use of indicators is an efficient way of measuring the effect of the library’s services on the user. The indicators should be easy to use, reliable, valid and helpful in making decisions’ (1996, p. 16).

The purpose of the performance indicator is to measure performance or progress against a set target within a time period. The measures are locally based, ie they are internally derived according to strategic goals and operational objectives. Performance indicators should accord with the SMART principle: they should be specific, measurable, achievable, realistic and sit within a timeframe (ACLIS 1996).

Performance indicators operate as a supporting framework for virtually all elements of best practice including leadership, benchmarking, customer focus, technology and quality. Performance indicators are designed to focus on measuring these various components of performance. The development and use of performance indicators should form the basis for the analysis of an organisation's current performance, its future requirements and the improvement strategies for ongoing success (Key Performance Indicator Manual, 1995).

### 2.1.2 Criteria for performance indicators (IFLA)

A performance indicator should be:

- *Appropriate* (valid) for what it is supposed to measure, used to answer a particular question and results should provide this answer.
- *Reliable* (accurate), devoid of ambiguity, difficulty arises where the performance indicator tries to analyse an attitude or opinion, results of which cannot be numeric.
- *Reproducible*—the same things should always be counted or measured in the same way. This allows comparison of performance in same library at different times and between libraries of a similar type.
- *Helpful* (useful, informative) in decision-making, should allow interpretation of quality, failure and ways of improvement—must be related to the goals of the library.
- *Practical* (user friendly), easy to use.

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## 2.2 Methodology

(How do we measure performance and why do we need to do it)

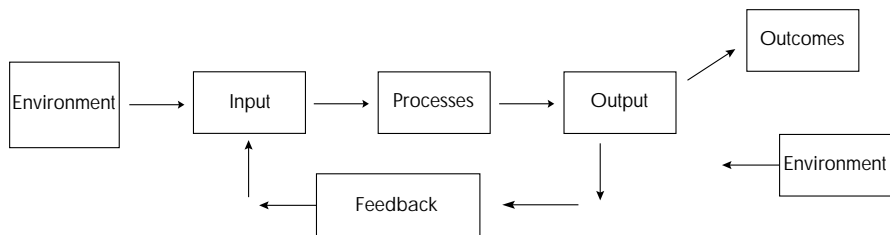
### 2.2.1 Measurement and evaluation process

Measurement is a tool in the evaluation process. Evaluation consists of comparing 'what is' with 'what ought to be'. Ultimately, evaluation is an exercise of judgement. Measurement is the collection and analysis of objective data describing library performance on which evaluation judgements can be based. Measurement results are not in themselves 'good' or 'bad'; they simply describe what is. What these data mean depends on 'what ought to be,' the expectations or goals that the evaluator holds for the library being evaluated' (Van House, 1990, p. 4).



The evaluation process works as follows:

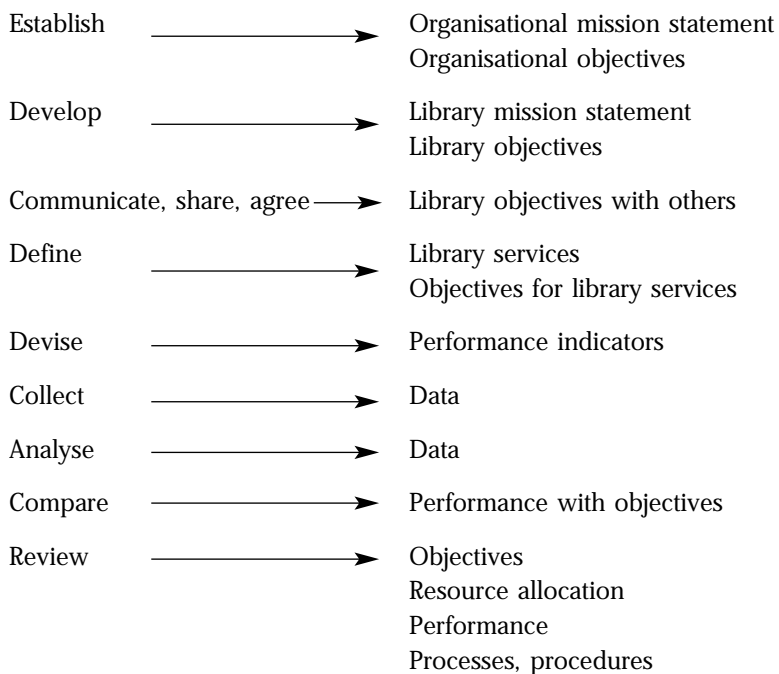
1. *Definition of effectiveness*—the identification of the overall basis for the evaluation
2. Establishment of *goals* which define what 'should be', the standards against which performance is to be judged
3. Based on the definition of effectiveness and goals, *criteria* are developed, which are broad indicators of effectiveness, these criteria are made concrete in *measures*. (Ideally at this point, operations and services are designed to meet the library's goals)
4. *Data* on library performance *are collected* for each measure
5. Data are compared to the goals to *assess library performance*. This is the point at which 'what is' meets 'what should be'.
6. Finally, the process cycles back and the evaluators *reconsider* the appropriateness of their definition of effectiveness, criteria, and measures, and their choices of operations and services.



- *Inputs*: the resources imported from the larger environment (eg staff, equipment).
- *Processes*: activities that transform resources into a product (eg cataloguing, reference).
- *Outputs*: the products and services created by the library (eg access to materials, answers to reference questions).
- *Outcomes*: the effect of library outputs on the larger environment (eg degree to which library use affects student learning).
- *Environment*: the larger context which provides inputs, consumes outputs and affects decision making in the system.
- *Feedback*: information from the system and the larger environment that helps the library improve its processes and outputs and obtain resources.

To be effective, performance indicators must be developed in context, not in isolation. They must be firmly rooted within a strategic management and planning framework. 'Performance indicators should emerge from the definition of strategic objectives, and the results of performance measurement should influence further strategic planning and strategic decisions' (Abbott, 1994, p. 10).

### 2.2.2 The performance indicator route map (Abbott fig. 3)



To summarise, stages in the development of performance indicators are:

1. Establish objective(s) for the service;
2. Agree the activities/processes involved;
3. Agree on the nature, type of inputs;
4. Define outputs;
5. Agree types of indicators required;
6. Devise performance indicator(s);
7. Decide on data collection methods, frequency etc;
8. Propose reporting mechanisms;
9. Operate the system;
10. Monitor the performance indicators;
11. Analyse results; and
12. Take remedial action, review procedures/processes, revisit objectives.

### 2.2.3 Development and use of key performance indicators

The same KPIs need not be used at all levels of the organisation, but they should be derived from the same organisation-wide key result areas (KRAs)/critical success factors (CSFs).

- KPIs are a crucial component of the toolbox for best practice;
- By providing relevant and timely information, KPIs can facilitate the initiation and development of a best practice strategy, particularly when linked to benchmarking;
- KPIs, by building alignment in the focus for organisation improvement, operate as a supporting framework for virtually all the major elements of a best practice strategy.  
(KPI Manual, 1995)

### 2.2.4 Characteristics of appropriate KPIs

***The following questions should be asked to test the appropriateness of the indicators:***

- Do they relate to the defined key result areas/critical success factors for the organisation?
- Is the data to construct the KPI available? Or is the effort required to collect the data appropriate, relative to the value of having the information?
- Is it possible to achieve consistent accuracy in the generation of a KPI trend?
- At the global level, is the KPI tracking outcomes?
- At the team level, is the KPI (or set of KPIs to which it belongs) focused on local processes and local outcomes?
- Does the existence of the KPI data lead people to ask questions about the direction of the trend?
- Does the information contained in the KPI trend lead to actions being taken?

### 2.2.5 Typical applications for KPIs

Performance indicators can be applied to:

- assess performance status and determine the need for and nature of change and improvement strategies;
- facilitate benchmarking, particularly the identification of possible partners;
- provide a focus and objectives for process improvement projects;
- generate alignment in strategic planning processes;

- support the introduction of self managed or self directed work teams;
- complement enterprise bargaining initiatives and facilitate the assessment of appropriate strategies to support new remuneration strategies, particularly gain sharing and performance related pay; and
- generate alignment in appraisal and performance review/performance management systems.

In general there are five broad purposes of evaluation which are to:

- determine whether an activity is fulfilling the purposes it was designed to do
- improve its effectiveness
- identify the outcomes
- identify costs
- assess the long term effects.

The determination of whether an activity fulfils the purpose it was designed to perform (relevance) is important. The following is an annual checklist of achievements against the strategic plan and its inclusion in the annual report of each library. This should answer:

- relation of services to the institution's goals and priorities;
- extent of achievement of library objectives during the year;
- effects of contingencies on library priorities;
- constraints affecting the library's performance (eg staff, facilities equipment); and
- issues relating to budgets and staff development which need to be addressed within the institution (Richards, 1992, p. 27).

### 2.2.6 Putting it all together

The following example is taken from the University of Wollongong Library Strategic Plan 1998–1999.

'In consultation with all staff, the Library's five major Critical Success Factors (CSFs) and a number of associated Key Performance Indicators (KPIs) were identified:

- CSF 1: Client Service Satisfaction
- CSF 2: Effective Support for Research, Teaching and Learning
- CSF 3: Effective/Efficient Resource Management
- CSF 4: Innovation
- CSF 5: Staff Wellbeing

Broad goals were also developed to expand on the intent of the CSFs. This framework provides the context for the development of key strategies, team action plans and measures' (p. 2). The application of this approach is demonstrated below in an extract from CSF 1.

#### CSF 1: Client service satisfaction

**GOAL 1:** Excellent client service designed to meet and anticipate the needs of different client groups for information, physical resources, education and assistance in an environment conducive to research study and learning.

**KEY STRATEGY:** Improve mechanisms for unmediated access to resources, whether held locally or remotely and whether in print, electronic or other formats.

**ACTIONS:** Prepare papers for Library Committee on policies to support unmediated access and migration from print to electronic.  
Prepare electronic directories of internet resources.  
Assist clients to develop profiles to improve relevance and ease of access to document delivery.  
Improve student search and information location skills to improve use of collection and other available resources.  
Improve accuracy of information on catalogue entries.

**KPIs:** Materials Availability  
Service Desk Satisfaction  
Client Feedback

Progress against each KPI for each of the five critical success factors is reported on annually in the Library's Annual Report.

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## 2.3 Points to remember

### 2.3.1 General advice

- It is important that the purposes for which performance indicators will be developed is clear at the outset.
- Who the information is being developed for affects the purposes of indicators and acceptability of the particular ones chosen.
- Performance indicators must relate to the library and institutional goals.

- Library management needs to focus on the key issues of concern as determined by the institution's management and the library users. Therefore the library's service goals must support the institution's goals. This can be done by integrating relevant library staff into the institution's planning efforts at all levels.
- Multiple constituencies and multiple environments require multiple measures.
- When developing performance indicators the focus should be on those that are useful for the institution's purposes.
- Given that evaluation efforts have costs, measurement should concentrate on areas where performance can be changed. The evaluation effort needs to pay for itself in more effective and efficient operations.

### 2.3.2 Difficulties

Richards states 'Difficulties with implementation of performance indicators relate to criticisms of their adequacy: their use for control; the lack of an integrated data system; inadequate knowledge; lack of interest; and other miscellaneous implementation factors. Criticism of adequacy has a number of bases:

- performance indicators attempt to measure quality with quantities;
- they attempt to compare the incomparable;
- they simplify the complexity and diversity of the activity;
- they measure substitutes or proxies instead of reality;
- fears as to how the indicators will be used form another barrier to their implementation' (1992, p. 29).

### 2.3.3 Training and awareness

Given the difficulties, it is crucial that all library managers and staff participate in some form of training and awareness program which should include knowledge and experience of performance indicators:

- as part of the decision making process;
- as part of the evidence of success;
- as monitors of activities;
- to compare over time and between institutions;
- with relevance to goals;
- to use and develop valid methodologies;
- in devising reproducible and repeatable indicators;

- to use appropriate ratios and clear definitions to enable comparisons; and
- to develop economical and acceptable indicators (Richards, p.31).

(More information on this topic can be found in Section D Training and Other Competencies)

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## 2.4 Library performance indicators

A number of manuals and kits have already been published which contain extensive lists of performance indicators by topic, these generally include actual measures with instructions for measuring and analysing the data.

### 2.4.1 IFLA: Measuring quality: international guidelines for performance measurement in academic libraries, Munich, Saur, 1996.

Concentrates on user oriented and effectiveness measures for academic libraries of all types. Describes in some detail definitions, methods of data gathering and interpretation. An extensive introduction includes discussion of terminology, the measurement process, and cost effectiveness. Limits itself to around 16 indicators and is strong on catalogue information effectiveness. Covers the following:

- user satisfaction (including services for remote use);
- general (market penetration, opening hours compared with demand);
- providing and retrieving documents (expert checklists, collection use, subject collection use, documents not used);
- enquiry and reference services (correct answer fill rate);
- information searching (Known-item-search, subject search);
- acquiring and processing documents (acquisition, processing);
- lending and document delivery (time); and
- availability (proportion of documents available almost immediately).

## 2.4.2 ISO 11620: International Standards Organisation, 1998, ISO/DIS 11620 Information and documentation—Library performance indicators, Geneva, ISO.

The indicators listed have to meet the criteria of being already tested, in common use, and applicable to almost any type of library. Hence the 29 indicators are conservative and cover only traditional services. Coverage includes:

- user satisfaction;
- general (4 indicators on use/cost);
- providing documents (6 indicators on availability/use);
- retrieving documents (2 indicators on retrieval times);
- lending documents (and document delivery) (6 indicators on use/cost);
- enquiry and reference services (1 indicator on 'correct answer' fill rate);
- information searching (2 indicators on cataloguing searching success);
- facilities (4 indicators on availability/use);
- acquiring and processing documents (2 indicators on median times); and
- cataloguing (1 indicator on cost per title).

The inclusion of definitions, scope and methods of producing and interpreting each indicator is useful.

The intent of ISO is to provide a standard which is especially useful in regard to terminology. Characteristics:

- concerned with evaluation of all types of libraries;
- includes cost indicators eg cost per title catalogued;
- less detailed description than IFLA; and
- thinned out or isolated compared to IFLA cluster approach.

A number of manuals including the IFLA Guidelines were used in the development of the Standard. Information searching, user training, promotion of services, staff management, staff training are not covered in the Standard. As of late 1999 this ISO standard was in the process of revision and due to incorporate indicators for electronic services in the next edition.



### 2.4.3 EAL: Joint Funding Council. Ad-hoc group on performance indicators for libraries, the Effective Academic Library (EAL), Bristol, HEFCE, 1995

Produced by senior academic librarians in 1995 as a response to the Follett report. EAL aims to help institutions and their libraries to improve their performance, sets out principles to be used in the construction of library performance indicators, and proposes a clear framework to identify overall library effectiveness. The framework is divided into five areas which are described in the library and wider institutional context. The areas are:

- Integration
- User satisfaction
- Delivery
- Efficiency
- Economy

A total of 33 indicators were recommended, designed to be applicable across the full range of institutions in the higher education sector. In developing these indicators the work undertaken elsewhere on performance indicators including IFLA, CURL, ISO and CEC was taken into account. Work on EAL continues, with a British Library funded study at Cranfield University exploring some key issues concerned with its implementation (see below) and the MIEL 2 and EQUINOX projects working on expanding the EAL legacy into electronic library services.

### 2.4.4 CRANFIELD Project: Performance indicators for academic libraries, <http://www.cranfield.ac.uk/cils/library/libinfo/cranpi.htm>

Using the EAL list as a starting point, this Project focused on the development of a small number of indicators for higher education institution libraries which the Funding Councils and vice-chancellors and principles could use to monitor the performance of libraries from an institutional management perspective as well as comparing the performance of one library with another. A provisional list of performance indicators drawn primarily from EAL has been proposed by the project authors.

#### 2.4.5 MIEL2: Management information systems and performance measurement for the electronic library: eLib supporting study final report, 1997/Peter Brophy & Peter M. Wynne

Builds on the approach taken in EAL which used a fivefold structure to gauge overall library effectiveness—Integration; Quality of Service; Delivery; Efficiency; Economy. A first attempt at developing supplementary indicators for electronic services is integrated into the EAL framework. MIEL2 findings have been folded into the EQUINOX project.

#### 2.4.6 Van House: Measuring academic library performance: a practical approach, Chicago, ALA, 1990

Presents a set of practical output measures for academic and research libraries that:

- evaluate the effectiveness of library activity;
- are useful for and replicable in all types and sizes of academic libraries;
- support decision making;
- are easy to apply and use and inexpensive to administer;
- are user oriented; and
- reflect common library goals and objectives.

The measures are service oriented ie they address the quantity and quality of services delivered to users, they do not cover internal library operations. Also included is a step by step guide to each measure, including its definition, the methods for collecting and analysing the data, ad a discussion of what each measure means and how it might be used. Sample survey reports, additional measures and blank forms are included in the Appendices.

#### 2.4.7 CAUL: Council of Australian University Librarians, performance indicator kits

A set of self contained packages, each of which includes the specification for the indicator, data collection methods and instruments, and data analysis and reporting software. Indicators include:

- Library/Clientele Congruence, CAUL Performance Indicator A (Client Satisfaction)
- Document Delivery Performance, CAUL Performance Indicator B
- Materials Availability, CAUL Performance Indicator C
- Performance Indicators for Reference Services (not yet available in kit form) <http://www.caval.edu.au/crigwppm.htm>

#### 2.4.8 Performance indicators database: Selecting the best performance indicators for your library (Exon & Williamson)

This database provides an index to the performance indicators described in literature published up to the end of 1995. It includes indicators suitable for measurement of the performance of libraries and incorporates a spreadsheet describing each indicator, a reference to the source(s) of the indicator, a statement of how it is calculated and an index of applications that it might be used for.

#### 2.4.9 CEC: Library performance indicators and library management tools (Prolib-pi Study)

The aim of the PROLIB-PI study was to develop a toolbox of performance measures and indicators which are relevant to and applicable in all types of library within Europe. The toolbox provides guidelines on the implementation and analysis of a variety of measures and indicators useful in the evaluation of library services. Methods for data collection for all measures and indicators are described.

#### 2.4.10 NPLS Project: National Public Library Statistics and performance measures for the networked environment, September 1999 (Bertot & McClure)

<http://www.albany.edu/~imlsstat/propstats.html>

Elements grouped according to the following:

##### *WHAT DOES THE LIBRARY HAVE?*

- collections (CD-ROMs, electronic subscription services, software packages;
- equipment and access (computers available for users, internet access available, for users, library home page services, printers available for users);

##### *HOW MUCH DOES IT COST?;*

- expenditure on hardware;
- electronic access expenditure;
- electronic format expenditures (CD-ROMs, disks and tapes, software);
- expenditure on maintenance of hardware available to users; and
- telecommunication expenditures.

*HOW ARE THE LIBRARY'S ELECTRONIC RESOURCES BEING USED?*

- access to Library's web pages;
- use by users of electronic subscription services; and
- OPAC use by users.

2.4.11 ICOLC: International Coalition of Library Consortia:  
Guidelines for statistical measures of usage of web-  
based indexed, abstracted and full text resources,  
November 1998.

<http://www.library.yale.edu/consortia/webstats.html>

2.4.12 WOREP: Wisconsin-Ohio reference evaluation Program

Used by both academic and public libraries in the US, WOREP forms a unique record of over 20,000 reference transactions over 16 years undertaken by 110 academic and 120 public libraries. Developed as an instrument to gather information on reference question transactions from simultaneous perspectives of the librarian and the user. Each transaction is focused on individually and contextual information is gathered at the same time for a specified period and number of transactions. Individual library reports come in terms of how the library rates against libraries of similar size, top scoring libraries and the average for all libraries. Some libraries use a series of WOREP applications to benchmark the evolution of their services over time.

2.4.13 SCONUL: Performance indicators for university libraries:  
a practical guide, London, SCONUL, 1992.

'Comprises three sections: history and rationale; the 'harmonised' SCONUL/COPUL statistics questionnaire; and a section on carrying out local statistical studies. The historical section suggests three pairs of issues to be considered in performance measurement:

- Effectiveness and efficiency
- National and local contexts
- Public relations and management

The section on local statistical studies covers objectives, use of statistics, examples including staff costs per student, loans per borrower, speed of supply etc. The volume provides a useful statement of the status quo'. (Winkworth, 1993, p. 20)

Indicators described in the majority of these manuals are represented in matrix format below. The matrix is arranged by topic eg shelving/measures available/source of publication. There is one exception to this arrangement in the electronic library category which lists proposed measures in major 'electronic library' projects MIEL 2, ICOLC, EQUINOX, and the Bertot/McClure public libraries PI project in the US. Draft indicators only have been identified and made available in the latter two ongoing projects, as of October 1999.

#### 2.4.14 Performance indicator matrix

See table on following pages.

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<p>Acquisitions</p> <ul style="list-style-type: none"> <li>• Efficiency</li> <li>• Effectiveness</li> <li>• Costs</li> <li>• Productivity</li> </ul>	<ul style="list-style-type: none"> <li>• speed of supply</li> <li>• accuracy of supply</li> <li>• unit cost per supply</li> <li>• items processed per relevant staff member</li> </ul>	<p>EAL: P5 Economy (Provision of stock)</p> <ul style="list-style-type: none"> <li>• [P5.5] expenditure on acquisition of information per FTE student</li> </ul> <p>IFLA: Availability of Documents in the Collection</p> <ul style="list-style-type: none"> <li>• [9] acquisition speed: time period between the day a title (monograph) is published and the day it arrives at the library, can be split into ordering speed and delivering speed</li> </ul> <p>ISO 11620: Acquiring Documents</p> <ul style="list-style-type: none"> <li>• speed of acquisition</li> </ul> <p>IFLA: Catalogue Quality</p> <ul style="list-style-type: none"> <li>• [7] known-item search: proportion of titles sought by the user and registered in the catalogue that the user managers to find</li> <li>• [8] subject search: proportion of titles in the subject or classified catalogue matching the user's subject that are found by the user</li> </ul> <p>ISO 11620: Cataloguing</p> <ul style="list-style-type: none"> <li>• cost per title catalogued</li> </ul> <p>ISO 11620: Providing documents</p> <ul style="list-style-type: none"> <li>• catalogue search—title success rate</li> <li>• catalogue search—subject success rate</li> </ul> <p>SCONUL</p> <ul style="list-style-type: none"> <li>• success/failure at the catalogue</li> </ul> <p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>• P3.7 volumes in collection per FTE student at a given date (national measure)•</li> </ul> <p>EAL: P4 Efficiency</p> <ul style="list-style-type: none"> <li>• P4.8 volumes in stock/FTE staff numbers</li> <li>• P4.9 total expenditure/volumes in stock</li> </ul> <p>SCONUL</p>
<p>Cataloguing and Classification</p> <ul style="list-style-type: none"> <li>• Efficiency</li> <li>• Effectiveness</li> <li>• Cost effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• delay time/throughput</li> <li>• accuracy of service; timeliness of supply;</li> <li>• user failure rate at the catalogue/shelf</li> <li>• cost of different levels of cataloguing (compared with user failure rates at the catalogue/shelf</li> <li>• unit cost of cataloguing and classification</li> <li>• items catalogued/classified per relevant staff member</li> </ul>	
<ul style="list-style-type: none"> <li>• Costs</li> <li>• Productivity</li> </ul>		
<p>Collection Development</p> <ul style="list-style-type: none"> <li>• Economy</li> </ul>	<ul style="list-style-type: none"> <li>• proportion of library budget committed</li> </ul>	
<p>Effectiveness</p>	<ul style="list-style-type: none"> <li>• turnover rate; average number of issues/uses per item (by subject); proportion of purchase requests satisfied (by subject); items on loan as proportion of total stock (by subject)</li> </ul>	

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>• Cost effectiveness</li> <li>• Costs</li> </ul>	<p>cost of stock/collections per user unit cost of selecting, deselection and regulating an item; average cost per item purchased (by subject), compared with external indices</p>	<p>(Expenditure on information provision per user</p>
<p>Collection Maintenance (see Materials availability)</p> <ul style="list-style-type: none"> <li>• Efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of service hours material is off the shelf/unavailable</li> </ul>	<p>See Materials Availability</p>
<ul style="list-style-type: none"> <li>• Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Accuracy of shelving, guiding ease of use (of collection)</li> </ul>	
<ul style="list-style-type: none"> <li>• Costs</li> </ul>	<ul style="list-style-type: none"> <li>• Unit cost of shelving an item</li> </ul>	
<ul style="list-style-type: none"> <li>• Productivity</li> </ul>	<ul style="list-style-type: none"> <li>• Items shelved per relevant staff member</li> </ul>	
<p>Collection Quality</p> <ul style="list-style-type: none"> <li>• Expert checklists</li> </ul>	<ul style="list-style-type: none"> <li>• percent of items in the collection as listed in checklists and bibliographies</li> </ul>	<p>IFLA: Collection Quality</p> <ul style="list-style-type: none"> <li>• [3] expert checklists</li> <li>• [4] collection use</li> <li>• [5] subject collection use</li> <li>• [6] documents not used</li> </ul>
<ul style="list-style-type: none"> <li>• Collection use</li> </ul>	<ul style="list-style-type: none"> <li>• ratio between the number of document uses within a certain period of time and the total number of documents in the collection</li> <li>• relation between the subject's proportion of the circulation, its proportion of the annual intake, and the proportion of the annual budget spent on the subject</li> <li>• percentage of documents in the lending collection not issued within a certain period of time</li> </ul>	
<p>Current Awareness</p> <ul style="list-style-type: none"> <li>• Market penetration</li> </ul>	<ul style="list-style-type: none"> <li>• subscribers as proportion of potential subscribers</li> </ul>	<p>No indicators identified in the manuals</p>
<ul style="list-style-type: none"> <li>• Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• surveys of needs fill rate (user satisfaction); percentage of repeat use</li> </ul>	<p>continued</p>

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>• Cost effectiveness</li> <li>• Costs</li> <li>• Productivity</li> </ul> <p>Delivery (Whole library service)</p> <ul style="list-style-type: none"> <li>• Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• cost of service per subscriber of different standards of production</li> <li>• cost per issue produced</li> <li>• issues produced per relevant staff member</li> </ul> <p>service standards the library expects to meet</p> <p>development targets: planned improvements</p> <p>In service</p>	<p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>• P3.1 meeting service standards over a given period</li> <li>• P3.2 meeting development targets over a given time</li> </ul>
<p>Document Delivery (see Materials Availability for items owned and in the collection and Interlibrary Loans for items not owned by the library)</p> <p>Economy</p> <p>Whole library service</p> <ul style="list-style-type: none"> <li>• Library expenditure</li> </ul>	<p>costs</p>	<p>EAL: P5 Economy</p> <ul style="list-style-type: none"> <li>• P5.1 total library expenditure per FTE student</li> <li>• P5.2 staff expenditure plus operating costs per FTE student</li> </ul>
<ul style="list-style-type: none"> <li>• Staff expenditure/operating costs</li> <li>• Space</li> <li>• Student numbers/number of libraries</li> </ul>	<p>how many people in what time frame, and at what maximum speed)</p> <p>electronic resources (principally databases at present) -unique titles, title sessions, queries (searches), title views, materials expenditure</p> <p>electronic services provided (eg reference)</p>	<p>staffing expenditure per user</p> <p>total library expenditure per user</p> <p>Npls project – bertot &amp; mcClure)</p> <ul style="list-style-type: none"> <li>• Public access workstations (Core)</li> <li>• Public access work stations usage (Optional)</li> <li>• Maximum speed of public access workstations (Core)</li> <li>• Unique electronic titles ( Optional)</li> <li>• Electronic network sessions (ICOLC adapted)</li> <li>• Electronic network queries/searches (ICOLC adapted)</li> <li>• Electronic network views (ICOLC adapted)</li> </ul>
<p>Electronic library (proposed)</p> <p>National Public Library Statistics and Performance Measures for the Networked Environment (September 1999)</p> <p><a href="http://www.albany.edu/~imisstat/propstais.html">http://www.albany.edu/~imisstat/propstais.html</a></p>	<p>user access (how many machines used by how many people in what time frame, and at what maximum speed)</p>	<p>student</p> <ul style="list-style-type: none"> <li>• P5.3 total library space per FTE student</li> <li>• P5.4 number of FTE students: number of libraries</li> </ul> <p>SCONUL</p>

continued



DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<p>International Coalition of Library Consortia (ICOLC)  <a href="http://www.library.yale.edu/consortia/webstats.html">http://www.library.yale.edu/consortia/webstats.html</a></p>	<p>visits (including remote logins) virtual visits regardless of what they did</p> <ul style="list-style-type: none"> <li>• training a. provided to users ( structured, non-structured, staff technical training, enrolments, attendees, completions, by module for electronic training. <b>II</b> any core skill sets and requirements where they are stated):</li> <li>b. undertaken by staff</li> </ul> <p>ICOLC</p> <p>Actual data requested is:</p> <ul style="list-style-type: none"> <li>• number of searchers (eg unique intellectual inquiries) usually indicated by search form</li> <li>• number of menu selections (eg if alphabetic and subjectbased menu selections are made the number of these)</li> <li>• number of sessions or logins (as a measure of simultaneous use)</li> <li>• number of turn aways (if relevant: where requests exceed user limits)</li> <li>• number of items examined (as recorded by the server, not the browser). Includes items selected, downloaded, emailed, printed.</li> </ul> <p>Separate technical performance reporting.</p> <p>EQUINOX Measures:</p> <ul style="list-style-type: none"> <li>• Percentage of target population reached by electronic library services</li> <li>• Number of log-ins to electronic library services per capita per month</li> <li>• Number of remote log-ins to electronic library services per capita per month</li> <li>• Number of electronic documents delivered by capita per month</li> <li>• Cost per log-in per electronic library service</li> </ul>	<ul style="list-style-type: none"> <li>• Electronic material expenditures (Core)</li> <li>• Electronic reference transactions (Core)</li> <li>• Virtual visits (Core)</li> <li>• Users trained (Core)</li> <li>• Staff trained per year (Core)</li> </ul> <p>ICOLC</p> <p>What is asked for is:</p> <ol style="list-style-type: none"> <li>1. Data by specific database</li> <li>2. By institutional IP addresses/locators</li> <li>3. By total consortium</li> <li>4. By special data element (eg account or ID number)</li> <li>5. By time, month, hour of the day with 24 months of historical data</li> </ol>
<p>EQUINOX  <a href="http://equinox.dcu.ie/">http://equinox.dcu.ie/</a></p>	<p>continued</p>	<p>continued</p>

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<p>MIEL 2  <a href="http://www.ukoln.ac.uk/dlils/models/studies/mis/mi.stif">http://www.ukoln.ac.uk/dlils/models/studies/mis/mi.stif</a></p>	<ul style="list-style-type: none"> <li>• Cost per electronic document delivered per electronic library service</li> <li>• Reference enquiries submitted electronically per capita per month</li> <li>• Library computer workstations use rate</li> <li>• Number of library computer workstations per capita</li> <li>• Library computer workstation hours used per capita per month</li> <li>• Rejected log-ins as a percentage of total log-ins</li> <li>• Systems availability</li> <li>• Mean waiting time for access to library computer workstations</li> <li>• IT expenditure as a percentage of total library expenditure</li> </ul>	<p>MIEL 2                      Operational Management                      • Resource Discovery                      • Resource Delivery                      • Resource Utilisation                      • Infrastructure Provision                      • Resource Management</p>
<p>MIEL 2</p>	<p>MIEL 2 Measures</p> <ol style="list-style-type: none"> <li>1. Operational Management Resource Discovery                             <ul style="list-style-type: none"> <li>• Sessions per service per month</li> <li>• User satisfaction with service results Resource Delivery</li> <li>• Items downloaded per service per month</li> <li>• Number of hits per service per month Resource Utilisation</li> <li>• User satisfaction with resource utilisation tools</li> <li>• Percentage of users using each tool Infrastructure Provision</li> <li>• Queuing times for access to workstations</li> <li>• Downtime (as % of total time) per month</li> <li>• Availability (as % of attempted accesses) per month</li> <li>• Pages of print per month</li> </ul> </li> </ol>	<p>MIEL 2                      Operational Management                      • Resource Discovery                      • Resource Delivery                      • Resource Utilisation                      • Infrastructure Provision                      • Resource Management</p> <p>Forward Planning</p> <p>Evaluation and Review</p> <ul style="list-style-type: none"> <li>• Integration (P1)</li> <li>• User Satisfaction (P2)</li> <li>• Delivery (P3)</li> <li>• Efficiency (P4)</li> <li>• Economy (P5)</li> </ul>

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
	<ul style="list-style-type: none"> <li>• Number of enquiries received per day</li> <li>• User satisfaction</li> <li>Resource Management</li> <li>• Number of sessions on each service/subscription cost</li> <li>• Number of helpdesk enquiries per staff per day</li> <li>2. Forward Planning               <ul style="list-style-type: none"> <li>• Number of students ... in years -2,-1,0,1,2,3 ...</li> <li>• Number of staff ... in years -2,-1,0,1,2,3 ...</li> <li>• Proportion of students as active users in years -2,1 etc</li> <li>• Proportion of staff as active users ...</li> <li>• Available budget for service in years -2,-1 etc</li> <li>• Available budget for staff in years ...</li> <li>• Total number of sessions in years -2,-1 ... etc</li> <li>• Number of sessions per service type in years ...</li> </ul> </li> <li>3. Evaluation and Review               <ul style="list-style-type: none"> <li>P1 Integration (no additions to EAL)</li> <li>P2 User satisfaction                   <ul style="list-style-type: none"> <li>• IT infrastructure</li> </ul> </li> <li>P3 Delivery                   <ul style="list-style-type: none"> <li>• PC hours used per annum divided by FTE students (P3.6A)</li> <li>• Proportion of JISC datasets available to users (P3.7A)</li> <li>• Total major electronic subscriptions (P3.7B)</li> </ul> </li> <li>P4 Efficiency:                   <ul style="list-style-type: none"> <li>• total library expenditure/PC hours used per annum (P4.7A)</li> <li>• total major subscriptions/FTE staff numbers (P4.8A)</li> </ul> </li> </ul> </li> </ul>	

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>total expenditure/total major subscriptions (P4.9A)</li> <li>P5 Economy</li> <li>PC hours available per annum per FTE student (P5.3A)</li> <li>FTE students per network PC (P5.7A)</li> </ul>	<ul style="list-style-type: none"> <li>total expenditure/total major subscriptions (P4.9A)</li> <li>P5 Economy</li> <li>PC hours available per annum per FTE student (P5.3A)</li> <li>FTE students per network PC (P5.7A)</li> </ul>	
<p>Facilities Use</p>	<ul style="list-style-type: none"> <li>seat occupancy: proportion of seats/study places occupied</li> <li>facilities use rate                             <ul style="list-style-type: none"> <li>proportion of time, on average, that a facility is busy</li> </ul> </li> </ul>	<p>EAL:P2 User Satisfaction</p> <ul style="list-style-type: none"> <li>P2.4 study facilities</li> </ul> <p>EAL: P5 Economy (Study facilities)</p> <ul style="list-style-type: none"> <li>P5.7 FTE students per seat</li> </ul> <p>ISO 11620: Facilities</p> <ul style="list-style-type: none"> <li>mean facilities availability rate</li> <li>mean facilities usage rate</li> </ul> <p>ISO 11620: Services Availability</p> <ul style="list-style-type: none"> <li>number of seats per capita</li> <li>seat occupancy rate</li> </ul> <p>Van House: Facilities &amp; Library Uses</p> <p>Facilities use rate</p>
<ul style="list-style-type: none"> <li>Effectiveness</li> </ul>		<ul style="list-style-type: none"> <li>user seating: user workstations; equipment eg photocopiers; conference/study rooms</li> </ul> <p>SCONUL</p> <ul style="list-style-type: none"> <li>seat hours per week per user</li> <li>seat hours occupied per week per user or average number of visitors at any given time</li> </ul> <p>EAL: P2 User satisfaction</p> <ul style="list-style-type: none"> <li>P2.5 Information skills program</li> </ul> <p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>P3.5 Proportion of students receiving post-induction instruction in information-handling skills during a year (national measure)</li> </ul> <p>SCONUL</p> <ul style="list-style-type: none"> <li>staff hours spent on user education (&amp; information</li> </ul>
<p>Information Skills Training</p>	<ul style="list-style-type: none"> <li>actual users as proportion of potential users</li> <li>needs fill rate/user satisfaction with training: percentage repeat use</li> <li>cost per user (compared with extent of market penetration/unit staff time spent on this service)</li> <li>cost per training session provided</li> </ul>	
<ul style="list-style-type: none"> <li>Market penetration</li> <li>Effectiveness</li> <li>Cost effectiveness</li> <li>Costs</li> </ul>		<ul style="list-style-type: none"> <li>staff hours spent on user education (&amp; information</li> </ul> <p>continued</p>

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>• Productivity</li> </ul>	<ul style="list-style-type: none"> <li>• number of training sessions run per relevant member of staff</li> </ul>	<p>services) per week or percentage of staff time spent on user education and information services per week</p> <p>EAL: P1 Integration</p> <ul style="list-style-type: none"> <li>• P1.1 the cohesiveness between the mission, aims, objectives and strategic plan of the institution and the library</li> <li>• P1.2 the resourcing mechanism used by the institution to provide its library service</li> <li>• P1.3 the academic and research planning processes and outcomes</li> <li>• P1.4 liaison between service providers and users</li> <li>• P1.5 internal assessment and audit mechanisms</li> </ul>
<p>Integration</p> <ul style="list-style-type: none"> <li>• Mission</li> <li>• Resourcing</li> <li>• Planning processes</li> <li>• Liaison</li> <li>• Assessment and audit</li> </ul>		<p>CAUL Indicator B</p> <ul style="list-style-type: none"> <li>• Fillrate and turnaround time</li> </ul> <p>EAL: P2 User satisfaction</p> <ul style="list-style-type: none"> <li>• P2.2 Document delivery services</li> </ul> <p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>• P3.3 documents delivered per FTE student during a year (national measure)</li> </ul> <p>EAL: P4 Efficiency</p> <ul style="list-style-type: none"> <li>• P4.3 documents delivered/FTE library staff numbers</li> <li>• P4.4 total library expenditure/documents delivered</li> </ul> <p>IFLA: Availability of Documents in the Collection</p> <ul style="list-style-type: none"> <li>• [13] interlibrary loan speed: proportion of documents requested through local and international interlibrary loans that are supplied within a certain period of time</li> </ul> <p>ISO 11620: Document Delivery from external sources</p> <ul style="list-style-type: none"> <li>• speed of interlibrary delivery</li> </ul> <p>SCONUL</p> <ul style="list-style-type: none"> <li>• speed of supply</li> <li>• ILL as a percentage of all loans</li> </ul>
<p>Interlibrary loans</p> <ul style="list-style-type: none"> <li>• Economy</li> <li>• Market penetration</li> <li>• Efficiency</li> <li>• Effectiveness</li> <li>• Costs</li> <li>• Productivity</li> </ul>	<ul style="list-style-type: none"> <li>• proportion of budget committed</li> <li>• take-up of service</li> <li>• speed of supply</li> <li>• timeliness of supply; accuracy of supply</li> <li>• unit cost per item requested; unit cost per item received</li> <li>• items processed per relevant staff member</li> <li>•</li> </ul>	<p>continued</p>

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
Lending Services		ISO 11620: Lending Documents
• Market penetration	• take-up of the service: average loans/transactions per registered user per month/year	• collection turnover rate
• Efficiency	• transactions per service hour: average waiting time	• loans per capita
• Effectiveness	• accuracy of the service (eg incidence of mistakes)	SCONUL
• Costs	• cost per transaction: cost per service hour	• loans per borrower
• Productivity	• transactions per relevant staff member	• stock on loan per user
		• staff costs per loan
		• borrowing by registered users
		• queue lengths
		Van House: Materials Availability & Use
		Circulation
		• annual total number of items charged out for use, usually (although not always) outside the library
Library/Space Usage (includes attendance; building use, remote use, service points use)		EAL: P3 Delivery
• Market penetration	• annual number of visits per head of population	• P3.6 library study hours per FTE student during a year
• Effectiveness	• cost per user of different models of opening hours	EAL: P4 Efficiency
• Cost effectiveness	• cost per user/per visit/per opening hour of maintaining the library building/area;	• P4.7 total library expenditure/number of study hours per year
• Costs	• cost per square metre of library space	IFLA: General Library Use and Facilities
		• [1] market penetration: proportion of the library's potential users who actually use the library
		• [2] opening hours compared to demand: the actual number and distribution of opening hours to the number ad distribution of opening hours desired by the users
		IFLA: Remote Use
		• [15] remote uses per capita: the number of remote uses by members of the primary user group during the year to the primary user group
		ISO 11620: Public Services
		• library use per capita
		• cost per user
		• number of library visits per capita
		• cost per library visit

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<p>Materials Availability</p> <ul style="list-style-type: none"> <li>• Availability</li> </ul>	<ul style="list-style-type: none"> <li>• proportion of actual user searches for library materials that is successful at the time of the user's visit</li> <li>• length of time users must wait to receive (or have available) requested material that is not owned or on the shelf.</li> </ul>	<p>Van House: Facilities &amp; Library uses</p> <p>Attendance</p> <ul style="list-style-type: none"> <li>• number of user visits to the library, ie the number of people entering the library, including people attending activities, meetings, and those requiring no staff services</li> </ul> <p>Service point use</p> <ul style="list-style-type: none"> <li>• average number of users at a service point, ie service points are staffed service sites (circulation, reference desks etc)</li> </ul> <p>Building use</p> <ul style="list-style-type: none"> <li>• average number of people in the library at any one time</li> </ul> <p>Remote uses</p> <ul style="list-style-type: none"> <li>• library use for which the user does not come to the library:</li> <li>• document delivery services</li> <li>• access to library catalogs or other online databases maintained by the library, from outside the library</li> <li>• telephone, email, fax or other reference questions, requests for database searches, or other service requests</li> <li>• Total uses total uses of the library, in person and remote</li> </ul> <p>CAUL Indicator C</p> <ul style="list-style-type: none"> <li>• materials availability</li> </ul> <p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>• P3.3 documents delivered per student (includes interlibrary loans)</li> </ul> <p>EAL: P4 Efficiency</p> <ul style="list-style-type: none"> <li>• P4.3 documents delivered/FTE library staff numbers (includes interlibrary loans)</li> </ul> <p>IFLA: Availability of Documents in the Collection</p> <ul style="list-style-type: none"> <li>• [1.1] availability: proportion of the material requested by the user that can be used in the library (including copying) or taken home immediately</li> <li>• [1.2] document delivery time: average time between the moment the user starts with the necessary procedures to</li> </ul>
<p>Document Delivery</p>		<p>continued</p>

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
		<p>borrow a document and the moment the item is checked out or available at the issue desk</p>
		<p>ISO 11620: Providing Documents</p>
	<ul style="list-style-type: none"> <li>• Titles availability rate</li> <li>• Requested titles fill rate</li> <li>• Requested titles delivery rate</li> <li>• Proportion of requested titles in the collection</li> </ul>	<ul style="list-style-type: none"> <li>• Titles availability rate</li> <li>• Requested titles fill rate</li> <li>• Requested titles delivery rate</li> <li>• Proportion of requested titles in the collection</li> </ul>
		<p>ISO 11620: Retrieving Documents</p>
	<ul style="list-style-type: none"> <li>• speed of retrieving documents from closed stacks</li> <li>• speed of retrieving documents from open stacks</li> </ul>	<ul style="list-style-type: none"> <li>• speed of retrieving documents from closed stacks</li> <li>• speed of retrieving documents from open stacks</li> </ul>
		<p>SCONUL</p>
	<ul style="list-style-type: none"> <li>• success/failure a the shelf</li> </ul>	<ul style="list-style-type: none"> <li>• success/failure a the shelf</li> </ul>
		<p>Van House: Materials Availability &amp; Use</p>
	<p>Materials availability</p>	<p>Materials availability</p>
	<ul style="list-style-type: none"> <li>• proportion of actual user searches for library materials that is successful at the time of the user's visit</li> </ul>	<ul style="list-style-type: none"> <li>• proportion of actual user searches for library materials that is successful at the time of the user's visit</li> </ul>
		<p>Requested materials delay</p>
	<ul style="list-style-type: none"> <li>• length of time users must wait to receive (or have available) requested material that is not owned or on the shelf.</li> </ul>	<ul style="list-style-type: none"> <li>• length of time users must wait to receive (or have available) requested material that is not owned or on the shelf.</li> </ul>
		<p>ISO 11620: Providing Documents</p>
	<ul style="list-style-type: none"> <li>• in-library use per capita</li> <li>• document usage rate</li> </ul>	<ul style="list-style-type: none"> <li>• in-library use per capita</li> <li>• document usage rate</li> </ul>
		<p>Van House: Materials Availability &amp; Use</p>
	<p>In-library materials use: total number of items used in the library but not charged out</p>	<p>In-library materials use: total number of items used in the library but not charged out</p>
	<ul style="list-style-type: none"> <li>• total number of uses of library materials of all types</li> </ul>	<p>Total materials use: total number of uses of library materials of all types</p>
	<ul style="list-style-type: none"> <li>• proportion of budget committed</li> <li>• actual users as proportion of potential users</li> <li>• time taken per search</li> </ul>	<p>Van House: Information services</p> <p>Online search evaluation</p> <ul style="list-style-type: none"> <li>• satisfaction with the performance of the search intermediary</li> </ul>
		<p>continued</p>



DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>Effectiveness</li> <li>Cost effectiveness</li> <li>Costs</li> <li>Productivity</li> </ul>	<ul style="list-style-type: none"> <li>surveys of needs fill rate: percentage of repeat use</li> <li>cost per user (compared with extent of market penetration/staff time spent on this service); relationship between time taken and references retrieved from different databases</li> <li>unit cost per search</li> <li>number of searches conducted per relevant staff member</li> </ul>	<ul style="list-style-type: none"> <li>satisfaction with the search product</li> <li>overall satisfaction with the online search</li> </ul>
<ul style="list-style-type: none"> <li>Processing</li> <li>Efficiency</li> <li>Effectiveness</li> <li>Costs</li> <li>Productivity</li> </ul>	<ul style="list-style-type: none"> <li>delay time/throughput</li> <li>accuracy of service</li> <li>unit cost of processing an item</li> <li>items processed per relevant staff member</li> </ul>	<p>EAL: P4 Efficiency</p> <ul style="list-style-type: none"> <li>P4.1 total number of items processed/FTE library staff numbers</li> <li>P4.2 total library expenditure/total number of items processed</li> </ul> <p>IFLA: Availability of Documents in the Collection</p> <ul style="list-style-type: none"> <li>[10] book processing speed: time period between the day a document arrives at the library and the day it is available on the shelf and/or in the catalogue</li> </ul> <p>ISO 11620: Processing documents</p> <ul style="list-style-type: none"> <li>Document processing speed</li> </ul>
<ul style="list-style-type: none"> <li>Publications</li> <li>Economy</li> <li>Market penetration</li> <li>Efficiency</li> <li>Effectiveness</li> <li>Cost effectiveness</li> <li>Costs</li> </ul>	<ul style="list-style-type: none"> <li>proportion of budget committed</li> <li>proportion/range of customers using the publications</li> <li>average preparation/production time</li> <li>turnover rate of stocks</li> <li>cost per publication of different standards of production</li> <li>unit cost per leaflet, brochure etc.</li> </ul>	<p>No indicators identified in the manuals</p>
<ul style="list-style-type: none"> <li>Reference &amp; Information Services</li> <li>Economy</li> <li>Market penetration</li> <li>Efficiency</li> <li>Effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>proportion of budget committed</li> <li>actual users as proportion of potential users</li> <li>enquiries answered per service hour: average waiting time</li> <li>surveys of needs fill rate (user satisfaction)</li> </ul>	<p>CRIG Performance Indicators for Reference Services Attributes</p> <ul style="list-style-type: none"> <li>Communication skills</li> <li>Analytical Skills</li> <li>Teaching Skills</li> <li>Interpersonal Skills</li> </ul>

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<ul style="list-style-type: none"> <li>• Cost effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>• cost per user/per service hour of different profiles of service provision</li> </ul>	<p>Support</p> <ul style="list-style-type: none"> <li>• Staffing the reference service</li> </ul>
<ul style="list-style-type: none"> <li>• Costs</li> </ul>	<ul style="list-style-type: none"> <li>• cost per enquiry answered; cost per service hour</li> </ul>	<ul style="list-style-type: none"> <li>• Policy and planning</li> <li>• Availability and use of service</li> </ul>
<ul style="list-style-type: none"> <li>• Productivity</li> </ul>	<ul style="list-style-type: none"> <li>• enquiries answered per relevant staff member</li> </ul>	<ul style="list-style-type: none"> <li>• Integration into academic program Knowledge</li> <li>• Matching resources to user needs</li> <li>• Provision of relevant information</li> <li>• Promotion of resources and services</li> <li>• Knowledge of resources</li> </ul>
		<p>EAL: P2 User Satisfaction</p> <ul style="list-style-type: none"> <li>• P2.3 Information services</li> </ul>
		<p>EAL: P3 Delivery</p> <ul style="list-style-type: none"> <li>• P3.4 enquiries answered per FTE student during a year</li> </ul>
		<p>EAL: P4 Efficiency</p> <ul style="list-style-type: none"> <li>• P4.5 enquiries answered/FTE library staff numbers</li> </ul>
		<ul style="list-style-type: none"> <li>• P4.6 total library expenditure/enquiries answered</li> </ul>
		<p>EAL: P5 Economy (Information services)</p> <ul style="list-style-type: none"> <li>• P5.6 FTE students per member of professional library staff</li> </ul>
		<p>IFLA: Reference Service</p> <ul style="list-style-type: none"> <li>• [14] correct answer fillrate: proportion of test questions which are correctly answered by the reference service</li> </ul>
		<p>ISO 11.620: Inquiry &amp; Reference Services</p> <ul style="list-style-type: none"> <li>• Correct answer fillrate</li> </ul>
		<p>SCONUL</p> <ul style="list-style-type: none"> <li>• self-service reference use</li> </ul>
		<ul style="list-style-type: none"> <li>• enquiries</li> </ul>
		<p>Van House : Reference Satisfaction</p> <ul style="list-style-type: none"> <li>• outcome of the reference transaction (how well the question was answered)</li> </ul>
		<ul style="list-style-type: none"> <li>• service experience (was the staff member helpful, quality of service provided)</li> </ul>
		<ul style="list-style-type: none"> <li>• overall satisfaction with the reference service</li> </ul>

continued

DESCRIPTION	MEASURE (in general terms)	KIT/MANUAL + Indicator Description
<p>User Satisfaction</p> <ul style="list-style-type: none"> <li>• General</li> <li>• By service</li> </ul>	<ul style="list-style-type: none"> <li>• extent to which collections, services and facilities meet expectations and perceived needs</li> <li>• experience and level of satisfaction when using particular services and facilities</li> </ul> <p>Note: additional instruments which focus on stakeholder evaluation of library effectiveness have been developed by Calvert &amp; Cullen; Hennon &amp; Allman; Parasuraman, reference to these are included in the Useful Sources List at the end of the Section</p>	<p>Van House: Reference Transactions</p> <ul style="list-style-type: none"> <li>• total number of reference transactions during a period of time (involves the knowledge, use, recommendations, interpretation, or instruction in the use of one or more information sources by a member of the library staff).</li> </ul> <p>Wisconsin-Ohio Reference Evaluation Program (WOREP)</p> <ul style="list-style-type: none"> <li>• Profile of clients and question</li> <li>• Perceived answering success by both participants</li> <li>• Any relationship between success and patron and librarian characteristics, question type and subject</li> <li>• Materials availability</li> <li>• Librarian behaviour</li> </ul> <p>CAUL Indicator A</p> <ul style="list-style-type: none"> <li>• library/client congruence</li> </ul> <p>EAL P2: User Satisfaction</p> <p>P2.1 Overall user satisfaction</p> <p>(see also P2.2.P2.5 for satisfaction with specific services)</p> <p>IFLA: User Satisfaction</p> <ul style="list-style-type: none"> <li>• [16] user satisfaction: the average rating given by users on a five-point scale ranging from very unsatisfactory to very satisfactory expressing their perception of the library services as a whole or of individual services offered by the library</li> <li>• [17] user satisfaction with services offered for remote use: use of services offered by the library in the electronic network from access points outside the library or its branch libraries</li> </ul> <p>ISO 11620: User Satisfaction</p> <ul style="list-style-type: none"> <li>• general and by service</li> </ul> <p>Van House: General Satisfaction</p> <ul style="list-style-type: none"> <li>• success during this library visit on each of several possible library activities</li> <li>• ease of use of the library</li> <li>• overall satisfaction with today's library visit</li> </ul>

## 2.5 Activity in Australia

Almost all academic libraries in Australia are using indicators in some form to measure performance. In addition to the CAUL Indicators, other measures of performance have either been adapted from existing indicators, or developed in-house. Emphasis has been placed on the need to have performance indicators which directly respond to institutional and library key result areas in strategic and operational plans. The trend appears to have been to develop in-house indicators in response to this requirement, rather than to utilise the CAUL Indicators. Some use/adaptation of external indicators has been mentioned eg SCONUL, IFLA, ISO 11620 generally and Van House, Herson and Altman, and Parasuraman with respect to client satisfaction (EIP Performance Indicator survey responses, unpub 1998).

### 2.5.1 Use of performance indicators in Australian academic libraries

Matrix of indicator use by indicator (as reported by libraries at December 1998)

Indicator	Measures	Institution
Accessibility	<ul style="list-style-type: none"> <li>All staff performing professionally</li> </ul>	U/Canberra
Adaptability	<ul style="list-style-type: none"> <li>All staff performing professionally</li> </ul>	U/Canberra
Activity Costing	<ul style="list-style-type: none"> <li>Unit and total costs of activities and services</li> </ul>	Deakin
<ul style="list-style-type: none"> <li>In-house</li> </ul>		Griffith
Assistance (from professional staff)	<ul style="list-style-type: none"> <li>All Staff performing professionally</li> </ul>	U/Canberra
Availability	<ul style="list-style-type: none"> <li>All staff performing professionally</li> </ul>	U/Canberra
Bookvote Use	<ul style="list-style-type: none"> <li>Commitment and expenditure against targets</li> </ul>	U/Wollongong
<ul style="list-style-type: none"> <li>In-house</li> </ul>		
Client focus/satisfaction using:		
<ul style="list-style-type: none"> <li>CAUL Indicator A</li> <li>CAUL Indicator A adapted</li> <li>SERVQUAL (Parasuraman)</li> <li>Van House</li> <li>ISO 11620 compliant</li> <li>In-house</li> </ul>	<ul style="list-style-type: none"> <li>Library/clientele congruence = fit between a particular academic library and its client groups (CAUL A)</li> <li>Degree to which clients are satisfied with library services</li> <li>Surveys targeting specific aspects of library operations (SFU)</li> <li>Distance education student satisfaction survey (in-house: Monash, CAUL A adapted: NTU)</li> </ul>	<ul style="list-style-type: none"> <li>CAUL A</li> <li>COU, CSU, Curtin, Flinders, Griffith, JCU, Macquarie, Murdoch, NTU, RMIT, USQ, UNSW, VUT, Waikato</li> <li>CAUL A adapted</li> <li>U/Melbourne, UQ, CAUL A/VH adapted</li> <li>Monash</li> <li>Parasuraman</li> <li>U/Melbourne, UNSW</li> <li>In-house</li> <li>Flinders, Monash, UWA</li> <li>U/Wollongong</li> <li>ISO Compliant</li> <li>Curtin</li> <li>Deakin</li> </ul>
Conspectus		

*continued*

Indicator	Measures	Institution	
Document Delivery (including ILL)	<ul style="list-style-type: none"> <li>• CAUL Indicator B</li> <li>• ABN ILL management statistics</li> <li>• Exon &amp; Williamson PI database measures</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Fillrate and turnaround time (CAUL B)</li> <li>• Supplier performance (ABN ILL)</li> <li>• Turnaround time and percentage fill rates</li> <li>• (Exon)</li> <li>• Off campus request turnaround time (CAUL B)</li> </ul>	<p>CAUL B Griffith, JCU, Lincoln, Monash, NTU, QUT, U/Newcastle, USQ, UWA, Waikato <i>In-house</i> UQ, U/Wollongong <i>ABN ILL stats</i> Murdoch <i>Exon database</i> U/Ballarat</p>
External Alliances	<ul style="list-style-type: none"> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Number of joint projects successfully concluded</li> </ul>	Curtin
Facilities Use	<ul style="list-style-type: none"> <li>• Van House adapted</li> </ul>	<ul style="list-style-type: none"> <li>• Extent of use of facilities and equipment by library clientele</li> <li>• IbltExtent of availability of facility of equipment for library clients</li> </ul>	Griffith  Griffith
Information Literacy	<ul style="list-style-type: none"> <li>• ISO 11620 compliant</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Degree to which clients are satisfied with the formal information literacy program</li> <li>• Satisfaction with workshops</li> <li>• Attendance and completion of library information literacy component</li> <li>• Attendance and completion of generic information literacy workshops</li> </ul>	Curtin  NTU U/Wollongong
Lending services	<ul style="list-style-type: none"> <li>• CAUL Indicator A (component)</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• library/clientele congruence = fit between a particular academic library and its client groups (CAUL A)</li> </ul>	NTU
Materials Availability	<ul style="list-style-type: none"> <li>• CAUL Indicator C</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of sought material obtained at time of visit</li> <li>• Subject search turnaround time</li> </ul>	<p>QUT CAUL C CQU, Deakin, Flinders, Griffith, JCU, Lincoln, NTU, QUT, RMIT, U/Melbourne, UNSW, U/Newcastle, UQ, UTS, Waikato <i>In-house</i> USQ, UWA, U/Wollongong</p>
Off campus library services	<ul style="list-style-type: none"> <li>• CAUL Indicator B</li> </ul>	<ul style="list-style-type: none"> <li>• Fillrate and turnaround time</li> <li>• Off campus request turnaround time (B)</li> </ul>	NTU, USQ
Promotion	<ul style="list-style-type: none"> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Extent of coverage of LIS activities in major campus publications</li> </ul>	Curtin
Reference and Information Services	<ul style="list-style-type: none"> <li>• CAUL A (component)</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• library/clientele congruence = fit between a particular academic library and its client groups (CAUL A)</li> <li>• Level of client satisfaction with service at reference/information desks</li> </ul>	CAUL A NTU, <i>In-house</i> Griffith, QUT U/Ballarat
Resourcing	<ul style="list-style-type: none"> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Extent LIS automated systems are actually available to clients</li> </ul>	Curtin
Scholarly Information	<ul style="list-style-type: none"> <li>• ISO 11620 compliant</li> </ul>	<ul style="list-style-type: none"> <li>• Median time to process non-serial items</li> <li>• LIS's success in attracting clients to its resources</li> <li>• Rate of use of loan collections</li> </ul>	Curtin

continued

Indicator	Measures	Institution
Service Point/Desk Use & Satisfaction	<ul style="list-style-type: none"> <li>• Extent of use of service points</li> <li>• Extent of availability of service points</li> </ul>	Griffith U/Wollongong
<ul style="list-style-type: none"> <li>• Van House adapted</li> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• Satisfaction</li> <li>• Service point response time</li> </ul>	VSL UQ, USQ
Shelving	<ul style="list-style-type: none"> <li>• Shelving accuracy and turnaround time</li> </ul>	
<ul style="list-style-type: none"> <li>• In-house</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Insert measure</i></li> </ul>	Monash U/Melbourne
Staff Perception		UTS
<ul style="list-style-type: none"> <li>• In-house</li> </ul>		
Staff performance targets		
<ul style="list-style-type: none"> <li>• In-houses</li> </ul>		
Technical Services		
(Acquisitions, cataloguing, processing and serials)	<ul style="list-style-type: none"> <li>• Turnaround time</li> <li>• Suppliers turnaround time</li> </ul>	Murdoch, NTU, QUT, USQ
<ul style="list-style-type: none"> <li>• In-house</li> </ul>		

There are a number of other performance indicators in use in Australian academic libraries that are not included in the above list. For readers interested in a more comprehensive picture of performance indicator use, an extensive list of links to Australian university library strategic and associated documents is available at:

<http://library.nepean.uws.edu.au/about/staff/gegan/performanceIndicators.html>

*(thanks to Gerard Egan for his extensive work in this area).*

### 2.5.2 How have libraries used performance indicators?

Performance measurement has been used by virtually all Australian academic libraries to achieve the following objectives/improvements:

- benchmarking with other University Libraries;
- quality improvement;
- process improvement;
- data from Indicator A has been collated, tabulated and analysed and a report prepared with recommendations for follow up actions. These are being considered in Unit operational planning and upcoming LIS-wide strategic planning;
- collection development based on conspectus levels;
- to drive staffing and resource allocation decisions and review of work practices;
- modified library access policies, student support policies and procedures;
- increased number of CD ROM workstations as a result of Indicator A feedback;

- quarterly costing figures fed into Technical Services continuous improvement processes;
- cultural awareness training for all service points staff as a result of feedback from international students in 1997 Satisfaction survey;
- restructure of document supply work flow and associated processes. The PI flowing from the ABN monthly management report indicated significant improvement in our performance as a supplier;
- indicators A, B used in Best practice project. Improvement plans are developed based on feedback from client satisfaction surveys;
- to improve workflows and services;
- to gain support for the Library eg additional funding for the collection;
- incorporated into ongoing planning;
- information gathered is fed back to the teams to enable them to examine means of process improvement;
- used in the University's Annual Report and in report to DETYA on Quality Assurance;
- continuous improvement projects are always linked back to performance indicator information eg shelving, costings;
- target measures routinely used as part of annual planning review. In 1999 emphasis will be on improvement and relevance of current indicators as part of a drive to enhance the quality management framework;
- Indicator C used to focus on problem areas and attempt new strategies to improve processes;
- client satisfaction data is now used to identify the perceived gaps and client priorities;
- currently benchmarking with U21 partners—Indicator C 1998, Indicator A 1999;
- library constantly pursues process and quality improvement initiatives. Where appropriate, comparisons are made between branches, other university libraries and innovative sites;
- collection improvement; shelving procedures; change in procedures for handling requests from external students;
- a review of virtually all of our functional units and services in the past two years to achieve process improvements, cost efficiencies and overall quality improvement. The reviews usually incorporate a literature review, customer and other stakeholder focus group sessions, site visits to organisations providing similar products or services. Information derived from these is considered in developing review recommendations and implementation strategies;

- teams monitor their performance indicators and develop improvement actions within their Team Action Plans. Also feedback from clients is incorporated in improvement activities. A KPI report is prepared annually on overall Library performance within the KPI framework and provides a foundation for improvement activities. Internal benchmarks have been established with most teams and some external benchmarking has commenced, eg KPIs process *improvement* and *communication* success were benchmarked with other organisations as part of the *Leading and Managing Improvement and Change* benchmarking network. The KPIs of bookvote use, materials availability and *budget utilisation* were examined in an acquisitions benchmarking activity;
- we also scan the *Benchmarking Exchange* (an electronic benchmarking bulletin board) on a regular basis to identify potential benchmarking activities that are in alignment with our KPIs and existing measures and data; and
- user satisfaction survey results have been used as input to process and service review.

### 2.5.3 Priorities for development

The performance indicator survey conducted in November–December 1998 as part of the CAUL EIP ‘Best Practice for Academic Libraries’ project, identified a number of additional and important indicators for future development. Some of these indicators have in fact, already been developed either through overseas publishers such as ISO, IFLA, or in-house by individual CAUL libraries. It seems therefore that there may be some value in exploring cooperative ventures and sharing the work already undertaken. Specific indicators identified in the survey for development include:

- overall performance indicators for library effectiveness;
- DETYA library indicator at top level for institutional performance;
- identifying indicators and measures through use of AQC Business Excellence framework;
- efficiency and effectiveness of service; indicators that aid in identifying areas where savings can be made or determination of service levels;
- accessibility, availability, adaptability, assistance;
- costing methodologies for key processes common to a number of libraries—copy and original cataloguing; ILL/doc delivery costs; electronic resources;
- staff training/skills effectiveness;
- access relative to need and time (more relevant now than opening hours);



- campus viability;
- innovation;
- electronic library suite of indicators;
- user acceptance of non-traditional sources of information;
- electronic resources access by remote users;
- proportion of resources available electronically 24 hours per day;
- performance of IT services in converged operations;
- efficient/effective web navigation;
- user adoption of electronic information retrieval;
- information literacy (effectiveness of teaching);
- information skills (program effectiveness and penetration);
- quality of information literacy training;
- reader education programs—penetration and use;
- support for off-campus students especially interstate and overseas;
- items return to shelf turnaround time;
- serials usage survey; and
- facilities use indicators.

*A number of useful articles and websites covering all aspects of performance measurement are included in the Useful Sources list.*

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## 2.6 Useful sources

### 2.6.1 Australasian sources

Byrne, A. 1997, 'CAUL's interest in performance measurement,' *Australian Academic & Research Libraries*, vol. 28, no. 4, pp. 252–258.

Outlines the development of a suite of three Performance Indicators ñ the Library/Cientele Congruence Indicator; Document Delivery Quality Indicator and Materials Availability Indicator by the Council of Australian University Librarians (CAUL). Published in 1995 these indicators have been applied in a number of Australian university libraries. A 1996 survey identified the level of usage of indicators, suggested improvements to existing indicators and potential areas for development of additional indicators. This survey has been updated 1998/1999 as part of the DETYA/EIP 'Best practice in Australian university libraries' project. Survey results available (<http://www.anu.edu.au/caul/>).

Calvert, P. 1997, 'Measuring service quality: From theory into practice', *Australian Academic & Research Libraries*, vol. 28, no. 3, pp. 198–204.

Calvert, P. & Hernon, P. 1997, 'Surveying service quality within university libraries,' *Journal of Academic Librarianship*, vol. 23, no. 4, pp. 408–415.

This article focuses on gap reduction. It builds on a conceptual framework for understanding and measuring quality in academic libraries created by Hernon and Altman, with the intention of refining it for practical use. The research was conducted in the seven university libraries of New Zealand during 1996.

Calvert, P. 1998, 'Service quality in academic libraries: Research in New Zealand and Singapore', in *Pathways to Knowledge, Australian Library and Information Association 5th Biennial Conference and Exhibition*, Conference paper available <http://www.alia.org.au/conferences/adelaide98/>

Cargnelutti, T. 1999, 'Finding one's web feet. Revisiting KIN: Key indicators of electronic resource usage in the Web environment', in *Robots to Knowbots: The Wider Automation Agenda, 1999 VALA Biennial Conference. Proceedings*.

Victorian Association for Library Automation, Melbourne, pp. 279–296. Paper also available at: (<http://www.library.unsw.edu.au/~eirg/vala98.html>)

The authors of this paper initially reported and described a range of key indicators of database and electronic resource usage at the 1996 VALA conference. This paper focuses on the difficulties associated with measuring electronic resource use and delivery, in particular web based resources, and outlines additional key indicators based on changes to the type and delivery of information now available.

CAVAL Reference Interest Group Working Party on Performance Measures for Reference Services 1995, *First Report; 1997, Second Report; 1998, Final Report*, CAVAL, Melbourne.

The Final report consolidates the previous work done by this group to identify performance measures and indicators currently used to evaluate reference services in Victorian academic libraries. Outlines a model of reference service effectiveness and identifies 12 Key Performance Indicators used by library staff and customers. Three dimensions of service evaluation are described ñ Attributes, Support, Knowledge. The identification of potential appropriate measures forms a part of the report. A comprehensive and well-timed report that makes a valuable contribution to an area of library service regarded by many as difficult to measure.

CAUL performance indicators:

- Gorman, G. & Cornish, B. 1995, *Library/Clientele Congruence, CAUL Performance Indicator A*, Council of Australian University Librarians, Canberra.
- Robertson, M. 1995, *Document Delivery Performance, CAUL Performance Indicator B*, Council of Australian University Librarians, Canberra.
- Taylor, C. 1995, *Materials Availability, CAUL Performance Indicator C*, Council of Australian University Librarians, Canberra.

Cullen, R. J. & Calvert, P.J. 1995, 'Stakeholder perceptions of university library effectiveness,' *Journal of Academic Librarianship*, vol. 21, no. 6, pp. 438–448.

This research in New Zealand, based on the multiple constituencies model, identified key performance indicators in university libraries as perceived by six separate stakeholder groups. Ranked lists and correlations between the lists show similarities, but also confirm that stakeholder groups have different perspectives on library effectiveness.'

Ellis-Newman, J. & Robinson, P. 1998, 'The cost of library services: Activity-based costing in an Australian academic library,' in *Journal of Academic Librarianship*, vol. 24, no. 5, pp. 373–380.

Activity-based costing is normally associated with budget planning and allocation. More latterly a number of libraries have costed activities, largely within technical service operations, as an adjunct to benchmarking. This article discusses the value of activity-based costing to libraries, its relationship to the collection of library statistics and its potential use as a measure of service quality, with reference to operations at Edith Cowan University and the University of Western Australia.

Exon, F.C.A. & Williamson, V. 1996, *Performance Indicators Database: Selecting the Best Performance Indicators for Your Library—Operating Manual*, Curtin University of Technology Library and Information Service, Perth, W.A.

This database provides an index to the performance indicators described in literature published up to the end of 1995. It includes indicators suitable for measurement of the performance of libraries and incorporates a spreadsheet describing each indicator, a reference to the source(s) of the indicator, a statement of how it is calculated and an index of applications that it might be used for.

Heron, P. & Calvert, P. J. 1996, 'Methods for measuring service quality in university libraries in New Zealand', *Journal of Academic Librarianship*, vol. 22, no. 5, pp. 387–391.

Outlines the development and subsequent testing of a questionnaire (based on Herson and Altman's conceptual framework Service Quality in Academic Libraries) designed to measure service quality at seven academic libraries in New Zealand. Includes the survey instrument and the recommendation that the instrument should be tailored to fit specific library environments ñ 'service quality is a local issue'.

Hoffman, H. 1998, 'Performance indicators for technical services in academic libraries', *Australian Academic & Research Libraries*, vol. 28, no. 4, pp. 177–189.

–1995, *Key Performance Indicators: A Practical Guide for the Best Practice Development, Implementation and Use of KPIs*, South Melbourne, Pitman

A step by step approach to identifying, developing and measuring key performance indicators. Covers general principles for the development and use of KPIs, a workbook and facilitator's resource kit.

Wilson, A. & Trahn, I. 1999, 'Best Practice in Australian University Libraries: lessons from a national project', Paper presented at 3rd Northumbria International Conference on Performance Measurement in Libraries & Information Services. 27–31 August 1999, Longhirst Management Training and Conference Centre, Longhirst Hall, Northumberland, England.

'Best Practice for Australian University Libraries' is a federally funded project which has investigated current 'best practice' activities within Australian academic libraries and made reference to relevant best practice activities at selected international sites. In this project, the term 'best practice' encompasses the extent of the implementation of quality frameworks and the use of benchmarking and performance measurement as tools for the continuous improvement of products, processes and services. Staff competencies and training required for the effective application of these frameworks and tools were also investigated. Recommendations on the practical application of this knowledge in support of effective future best practice have been made. These recommendations include the conversion of information from the project into the basis for an ongoing source of reference for all university libraries.'

## 2.6.2 International sources

Abbott, C. 1994, *Performance measurement in library and information services*, London, Aslib

A good introductory text, covers terminology and process, also includes charts

Altman, E. & Pratt, A. 1998, 'The JAL guide to professional literature: Performance measurement,' *Journal of Academic Librarianship*, vol. 24, no. 4, p. 346

Association of Research Libraries, <http://www.arl.org/>

The ARL web site is a key source, especially the performance measures, special projects and statistical data base areas. Historical sources can be found in the *Sources of Information on Performance and Outcome Assessment* on this site. There are also links to summary information on SERVQUAL as a mechanism for assessing service quality, and to the *Wisconsin-Ohio Reference Evaluation program*, a quasi standard in relation to reference service assessment. All of these documents are useful.

Association of Research Libraries. Access and Technology Program/ILL/DD Related Resources *Measuring the Performance of Interlibrary Loan and Document Delivery Services* <http://www.arl.org/access/illdd/illss.shtml>

This valuable site includes the March 1998 Executive Summary of the study results, an article which also appeared in the ARL Bimonthly Newsletter of Research Library Issues and Actions, and information from two subsequent symposiums and workshops on strategies to redesign ILL/DD services using the identified characteristics of low cost high performing ILL operations. Four performance measures were covered:

- direct cost;
- fill-rate;
- turn around time; and
- user satisfaction

Site visits to the 'best practice' organisations to interview staff about their workflows will form part of the final report.

Barton, J. & Blagden, J. 1998, *Academic library effectiveness: a comparative approach*, British Library Research & Investigations Report 120, London, British Library.

The remit of this investigation was to develop a small set of performance indicators which would enable funding bodies, vice-chancellors and other senior university managers to compare library effectiveness across the UK higher education sector. The report recommends a small set of management statistics (as opposed to performance indicators) covering per capita expenditures, seat hours per week per user, lending and user education data. The report also recommends the provision of 'contextual' data largely on the size of the institution to facilitate interpretation of the management statistics. Recommendations for further work on the electronic library, benchmarking, user satisfaction, document availability, information

services, user education, impact, in-house use and access vs holding are also included.

Barton, J. 1998, 'Recommendations of the Cranfield project on performance indicators for academic libraries' *SCONUL Newsletter*; Summer/Autumn, pp. 13-17

Bertot, J. & McClure, C. have just released a number of working papers—*Developing National Public Library and Statewide Network Electronic Performance Measures and Statistics* at <http://www.albany.edu/~imlsstat/>

Elements are to be grouped according to the following:

#### *WHAT DOES THE LIBRARY HAVE?*

- collections (CD-ROMs, electronic subscription services, software packages;
- equipment and access (computers available for users, internet access available, for users, library home page services, printers available for users);

#### *HOW MUCH DOES IT COST?;*

- expenditure on hardware;
- electronic access expenditure;
- electronic format expenditures (CD-ROMs, disks and tapes, software);
- expenditure on maintenance of hardware available to users; and
- telecommunication expenditures.

#### *HOW ARE THE LIBRARY'S ELECTRONIC RESOURCES BEING USED?*

- access to Library's web pages;
- use by users of electronic subscription services; and
- OPAC use by users.

Bloor, I. 1991, *Performance indicators and decision support systems for Libraries: a practical application of keys to success*, London, British Library Research & Development Division.

21 measures were identified, divided into four groups according to whether they are measures of inputs, outputs, outcomes (which are described as service effectiveness measures) or population serviced (described as service domain measures).

Brophy, P. 1998, 'It May Be Electronic but is it any good?' in *Electronic dream? Virtual nightmare, the reality for libraries*, 1996 VALA Biennial Conference Proceedings, Victorian Association for Library Automation, Melbourne, pp.216-229 also available on the VALA web site, <http://avoca.vicnet.net.au/~vala/valaweb/vala.htm>

This is an important summary of the state of research in this area as it was early in 1998 and outlines European and US work yet carries this work

forward another step. Brophy asks what is quality in the electronic context; suggests a model of comprehensive service and specific ways to measure the quality of products and services and assure quality and summarises US/Europe and on-going work. He also includes an eight part functional map for electronic library services covering:

- access negotiation (selection, contract review);
- resource capture, storage & access (local storage, universal accessibility, metadata provision);
- advisory services (Help desk, subject advice, information skills);
- resource discovery (resource identification, location identification);
- resource delivery (request, acquire, deliver to user);
- resource utilisation (exploitation, tools);
- infrastructure provision (space, equipment, software, net-works, support services); and
- resource preservation (identification, selection, conservation, renewal).

This is mapped against a product quality criteria framework to give a possible map of what quality electronic services might look like. Some of the indicators proposed were:

- PC hours pa/FTE student;
- FTE student per networked PC;
- queuing time;
- down time (as % of total time);
- availability (as % of attempted access);
- proportion of a notional number of data-sets available; and
- user satisfaction services/infrastructure.

Brophy, P. & Wynne, P. 1997, *Management Information Systems and Performance Measurement for the Electronic Library: an eLib Supporting Study (MIEL2 Project) Final report*, Preston, Centre for Research in Library and Information Management, University of Central Lancashire. (See MIEL below)

CAMILE project at <http://www.staff.dmu.ac.uk/~camile/> (see EQUINOX)

CAMILLE is an integrated source set up to promulgate results from four important EU projects now completed. There are links on the CAMILE pages for all four projects.

Crawford, J. et al 1998, 'The stakeholder approach to the construction of performance measures,' *Journal of Librarianship and Information Science*, vol. 30, no. 2, pp. 87-112 (see also Pickering below)

Davis, D. 199 *The Real World of Performance Indicators: A review of their use in selected Commonwealth countries*, London, CHEMS

There is continuing interest world-wide in the development and use of performance indicators in higher education as an aid to institution management, as a mechanism for resource allocation and monitoring by government, and as a basis for national and international comparisons. However, at the same time there is debate on their value particularly when taken out of context of institutional or national goals, and when they are not seen to relate directly to the quality of teaching and the student learning experience. This study aims to bring a practical perspective to the discussion by reviewing the extent to which performance indicators are currently being used in Commonwealth countries, by assessing whether there are any agreed “key” or common indicators and whether any can be applied universally, and by identifying some of the issues associated with their development and application. The study focuses on the UK, Australia and Canada since published documentation on performance indicators applied across the higher education sector is readily available in these countries.

DECIDE (decision support system for academic and public libraries) coordinated by Carpenter Davies at <http://www.pro-net.co.uk/efc/DECIDE/> (see EQUINOX)

The very useful *Matrix of performance measures and indicators from recent major studies* by John Sumsion forms part of this report (see below for another location).

DECIMAL (decision research for the development of integrated library systems) coordinated by Manchester Metropolitan University at: <http://www.mmu.ac.uk/h-ss/dic/research/decimal.htm> (see EQUINOX)

There are two deliverables available on the web, the Integrative Research report and the User Requirements Specifications. The Performance Measurement chapter in the final report summarises results of use of and interest in the Toolbox indicators mentioned below. Unsurprisingly many libraries express interest in a range of measures but the range of institutions and influences leads to the overall conclusion that almost all suggested measures may be useful for some of the libraries some of the time so that a fixed ‘box’ content is not the best way to proceed.

EQLIPSE—Evaluation and Quality in Library Performance: System for Europe coordinated by the University of Central Lancashire at <http://www.sub.su.se/henrik/eclipsehome.htm> (See EQUINOX)

The EQLIPSE project aimed to produce:

- international agreement on standard performance measures for the electronic library environment; and



- develop and test an integrated quality management and performance measurement software tool

The EQLIPSE project massaged IFLA, ISO, De Montfort and HECFE performance indicators into a list of 52. These indicators were tested in participating libraries and a manual written for the software specifications to support collection and manipulation. Concrete outcomes of this project included the prototype library performance measurement support software with implementation manual. As a result of testing in eight European and UK academic libraries, survey data was collected on the most valuable, least valuable, most problematic to collect data sets and the resulting suggested listing was included in the final report.

EQUINOX Library Performance Measurement and Quality Management System site at <http://equinox.dcu.ie/>

This brings together unfinished aspects of earlier European Union projects including CAMILE which was to publicise the outcomes of EQLIPSE, MINSTREL, DECIMAL, DECIDE. There are direct links. In May 1999 EQUINOX posted draft electronic performance indicators. There are 14:

1. Percentage of target population reached by electronic library services
2. Number of log-ins to electronic library services per capita per month
3. Number of remote log-ins to electronic library services per capita per month
4. Cost per log in per electronic library service
5. Electronic documents delivered, per electronic library service, per capita per month
6. Cost per electronic document delivered per electronic library service
7. Reference enquiries submitted electronically per capita per month
8. Facilities use rate
9. Number of library computer workstations per capita
10. Library workstation hours used per capita per month
11. Rejected log-ins as a percentage of total log-ins
12. Systems availability
13. Queuing time for access to PCs
14. IT expenditure as a percentage of total library expenditure

Hernon, P. & Altman, E. 1996, *Service Quality in Academic Libraries*, Norwood, Ablex

Provide summary

Hernon, P., Nitecki, D. & Altman, E., 1999, 'Service quality and customer satisfaction: an assessment and future directions,' *Journal of Academic Librarianship*, vol. 25, no. 1, pp. 9–17.

'This article presents key literature, analyses the application of service quality and customer satisfaction to academic libraries and offers a research agenda.' A discussion of approaches and survey instruments is included.

IFLA, 1996, *Measuring quality: international guidelines for performance measurement in academic libraries*, Munchen, Bowker-Saur (see Poll below)

International Standards Organisation, 1998, ISO/DIS 11620 *Information and documentation—Library performance indicators*, Geneva, ISO.

The indicators listed have to meet the criteria of being already tested, in common use, and applicable to almost any type of library. Hence the 29 indicators are conservative and cover only traditional services. Coverage includes:

- User satisfaction;
- General (4 indicators on use/cost);
- Providing documents (6 indicators on availability/use);
- Retrieving documents (2 indicators on retrieval times);
- Lending documents (and document delivery) (6 indicators on use/cost);
- Enquiry and reference services (1 indicator on 'correct answer' fill rate);
- Information searching (2 indicators on cataloguing searching success);
- Facilities (4 indicators on availability/use);
- Acquiring and processing documents (2 indicators on median times);  
and
- Cataloguing (1 indicator on cost per title).

The inclusion of definitions, scope and methods of producing and interpreting each indicator is useful.

*Issues in Research Library Measurement*: a special issue of ARL: a bimonthly newsletter of research library issues and actions, no.197, April 1998 available in printed form and at <http://www.arl.org/stats/perfmeas/>. This contains the following article:

Kyrillidou, M. 'An overview of performance measures in higher education and libraries,' Martha although considering the usefulness of the International Standards Organisation and International Federation of Library

Associations measures (see below) to be limited to internal library time series comparisons rather than being tools which can be used to compare across institutions, recommended to US research libraries that they begin some cross institutional comparisons using three of the IFLA/ISO11620 indicators which seem important and not difficult to collect :

- market penetration of circulation;
- collection use (loans plus in house uses/documents held or just loans/documents held); and
- satisfaction/importance for users overall, with specific services, locally and remotely.

Jewell, T. *Recent Trends in ARL Electronic and Access Services Data* at <http://www.arl.org/stats/specproj/etrends.htm>

This paper is most useful for indicating the direction in which the ARL statistical database is moving. Although the existing database is drawn from fairly traditional sources it does have the very useful facility that the user can select, search and customise data according to requirements. This flexibility, in addition to the coverage and number of years the ARL data has been collected, makes the existing database a useful tool. This paper is a look at the future. It summarises an Association of Research Libraries project on 'The character and nature of research library investments in electronic resources.' The project looked at US research library responses to supplemental questions on electronic resources as part of collections or which are accessible through library system terminals and their impact as part of library materials expenditures. Document delivery and ILL expenditures, expenditures on bibliographic utilities and consortia are included and discussed. US libraries can compare their own figures with median and average figures for the group.

Joint Funding Council. Ad-hoc group on Performance Indicators for Libraries, 1995, *The Effective Academic Library* (EAL), Bristol, HEFCE

This document is summarised in the Sumsion work and the indicators appear in the indicator chart. Brophy's work takes the EAL indicators as the starting point for his translation to equivalent measures in an electronic context. Produced by senior academic librarians in 1995 as a response to the Follett report. The content of this includes 21 indicators with debts to CEC Toolbox, the ISO Draft Standard and existing SCONUL statistics. Jane Barton and John Blagden have just reported to SCONUL the findings of a project to test and refine these. (see below)

Lancaster, F. W. 1993, *If you want to evaluate your library*, London, Library Association

Brief summary

McClure, C. & Lopata, C. 1996, *Assessing the Academic Networked Environment*, Syracuse, N.Y., School of Information Studies, Syracuse University

This paper which forms the basis for a current Coalition for Networked Information Project of the same name. Both the original paper <http://istweb.syr.edu/~mcclure/network/toc.html> and the original and progress reports on the project are available at <http://www.cni.org/projects/assessing/reports/>. Key elements in the original paper include sections on collecting and using qualitative data, measures under the headings of:

- users;
- costs;
- network traffic;
- use;
- network services; and
- support services.

Model user surveys are included, together with links to two self assessment frameworks.

Measuring the impacts and value of networking and networked information has emerged as a major issue. In 1997–1998 the Coalition conducted a coordinated field test of the assessment measures outlined in McClure and Lopata's *Assessing the Academic Networked Environment: Strategies and Options*. The field test was intended to facilitate institutional collaboration on assessment issues, to develop a compendium of assessment measures, and to inform the community of approaches and best practices in assessing networked resources and services. In 1998–1999 we will complete this effort by reporting results to the broader community.

MIEL *Management in the Electronic Library*. MIEL2 final report at <http://www.ukoln.ac.uk/dlis/models/studies/mis/mis.rtf>

MIEL2 Final Report ranges over possible sources for appropriate management information for the electronic library which can be used for planning, evaluation and day to day management. Possible sources and types of information suggested include commercial suppliers (documents delivered not time spent on-line, transaction log analysis, monitoring the Centre for Information Quality Management medium user/producer communications (see <http://www.la-hq.org.uk/liaison/ciqm/ciqm.html>),

reports from electronic data service providers, ELINOR software development (De Montfort University at <http://www.ielr.dmu.ac.uk/Research/index.html>) usage to page level. Further development in close liaison with the implementation of Effective Academic Library.

The areas where work is suggested in MIEL2 include

- testing the indicators in a range of university libraries—old/new, converged/non-converged, etc.;
- clarifying the concept of electronic library; and
- doing more work on user satisfaction using SERVQUAL/stakeholder approaches.

At the end of 1998 the next stages of MIEL were just beginning. MIEL 3–5 cover the following areas. Outcomes are not due until 2000:

- MIEL3 (part of EQUINOX focussed on international standards activity);
- MIEL4 management information in a co-operative setting for clumps and hybrids; and
- MIEL5 management information needs for libraries delivering to remote or dispersed populations.

MINSTREL (management information software tool) coordinated by De Montfort University. Final Report at <http://www.dmu.ac.uk/~camile/Minstrel.htm> (See EQUINOX)

The objective of the project was to ‘create and test a transformer which will allow for the development of simple ratios suitable for producing performance indicators, and bridging the gap between data sets collected for library management information purposes and tools used by librarians for decision support and library operation modelling’. Prototype software was developed and tested.

Northumbria International Conference on Performance Measurement in Libraries and Information Services, (1st: 1995: Longhirst Hall, England). *Proceedings of the 1st Northumbria International Conference on Performance Measurement in Libraries and Information Services held at Longhirst Management and Training Centre, Longhirst Hall, Northumberland, England, 31st August–4th September 1995*, Newcastle, Information North, 1998.

Contains a number of useful papers on performance measurement, especially articles by:

- Sumsion, J. & Ward, S. ‘EC Toolbox project: general findings and some particular proposals,’ pp. 135–145
- Town, S. ‘Benchmarking and Performance Measurement,’ pp. 83–88

Northumbria International Conference on Performance Measurement in Libraries and Information Services, (2nd: 1997: Longhirst Hall, England). *Proceedings of the 2nd Northumbria International Conference on Performance Measurement in Libraries and Information Services held at Longhirst Management and Training Centre, Longhirst Hall, Northumberland, England, 7 to 11 September 1997*. Newcastle, Information North, 1998.

Valuable because of the fairly recent date, wide source coverage (including major contributions from Australasia, the US, the UK and Europe) and the exploration of the themes of:

- performance measures and indicators;
- benchmarking;
- qualitative measurement ;
- electronic/digital library measurement; and
- managing information services (role for PM in changing styles, structures, procedures).

Northumbria International Conference on Performance Measurement in Libraries and Information Services, (3rd: 1999: Longhirst Hall, England). *Proceedings of the 3rd Northumbria International Conference on Performance Measurement in Libraries and Information Services held at Longhirst Management and Training Centre, Longhirst Hall, Northumberland, England, 27 August–31st August 1999*. Newcastle, Information North, 2000 (in press).

The proceedings from the 3rd Northumbria conference held in August 1999 are due for publication some time in 2000. Papers include Bertot ( Measuring electronic library services: possible statistics and performance measures, McClure (Issues and strategies for developing national statistics and performance measures for library networked services and resources), Sumsion (Popularity ratings, core sets and classification of performance indicators).

Parasuraman, A. et al 1988, 'SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality,' *Journal of Retailing*, vol. 61, pp. 12–40

Pickering, H. & Crawford J. C. 1996, *The Stakeholder approach to the construction of performance measures: a report to the British Library Research and Development Department Glasgow Caledonian University, 1006* (see also Crawford above)

Fifteen British academic libraries used a Calvert and Cullen inspired method, in the tradition of Van House, to design and administer a survey to 10 stakeholder groups. Identifies priorities across overall and specific groupings of stakeholders based on their 1–7 rating of importance. A few overriding considerations were identified. The results compared pre and

post 1992 UK universities and made comparisons with Follett, EAL, ISO and IFLA sources. The stakeholder approach based on interview and focus groups should be used in relation to measurement of electronic services and of future information planning strategy.

Includes brief comments about the manuals sourced for the indicators in the matrices.

Poll, R. & Boekhorst, P. te 1996, *Measuring Quality: international guidelines for performance measurement in academic libraries*, IFLA Publication 76, Munich, Saur.

Concentrates on user oriented and effectiveness measures for academic libraries of all types. Describes in some detail definitions, methods of data gathering and interpretation. Limits itself to around 16 indicators and is strong on catalogue information effectiveness. Covers the following:

- user satisfaction (including services for remote use);
- general (market penetration, opening hours compared with demand);
- providing and retrieving documents (expert checklists, collection use, subject collection use, documents not used);
- enquiry and reference services (correct answer fill rate);
- information searching (Known-item-search, subject search);
- acquiring and processing documents (acquisition, processing);
- lending and document delivery (time); and
- availability (proportion of documents available almost immediately)

Sumsion, J. *Matrices of Performance Indicators* at <http://www.staff.dmu.ac.uk/~camile/matrices/intro.htm> (Commissioned as part of the DECIDE project)

This useful summary for busy practitioners provides a brief overview sufficient to show what indicators recent (1995) major studies or publications encompass. Sumsion, apart from producing a very useful grid of indicators also reviewed the major literature and included links where appropriate. The actual items need be consulted only if detailed knowledge is required.

Standing Council (now Conference) of National and University Librarians, 1992, *Performance Indicators for university libraries: a practical guide*, London, SCOUNL

Van House, N., Weil T. & McClure, C. 1990, *Measuring academic library performance: a practical approach*, Chicago, ALA

Presents a set of practical output measures for academic and research libraries that:

- Evaluate the effectiveness of library activity
- Are useful for and replicable in all types and sizes of academic libraries
- Support decision making
- Are easy to apply and use and inexpensive to administer
- Are user oriented
- Reflect common library goals and objectives.

The measures are service oriented ie they address the quantity and quality of services delivered to users, they do not cover internal library operations.

Ward, S., Sumsion, J. & Bloor, I. 1995, *Library performance indicators and library management tools*, Luxemburg, EC DG-XIII-E3,

The aim of the PROLIB-PI study was to develop a toolbox of performance measures and indicators which are relevant to and applicable in all types of library within Europe. The toolbox provides guidelines on the implementation and analysis of a variety of measures and indicators useful in the evaluation of library services. Methods for data collection for all measures and indicators are described.

Willemse, J. 1998, 'Performance Assessment in IFLA and United Kingdom Academic Libraries,' *South African Journal of Library and Information Science*, vol. 66, no. 4, pp. 161–165.

This study found that less than one third of surveyed libraries in 1996 and 1991 had policies in place relating to performance measures or indicators, and less than a quarter were using indicators to evaluate services on a regular basis in relation user/document delivery services. Less than 40% evaluated enquiry services, and less than fifty evaluated user education. Of those with results, less than half disseminated these outside the library. The IFLA study was based on a 1993 survey by Morgan of British higher education libraries.

Young, P. 1998, 'Measurement of electronic services in libraries: statistics for the digital age,' *IFLA Journal*, vol. 24, no. 3, pp. 157–160

This article discusses the difficulties associated with measurement of electronic services in libraries. Identifies possible approaches and proposes some standards for measurement of electronic information services in libraries.



## Section 3 Quality frameworks

The intent of this section is to provide the reader with an introduction to the adoption and implementation of quality frameworks within the Australian University library sector. Areas explored include terminology, rationale for adoption of quality frameworks or programs, information and relevant links to specific framework information, case studies and an extensive annotated list of useful material.

Material for this section of the handbook has been drawn from the report 'Guidelines for the Application of Best Practice in Australian University Libraries: International and International Benchmarks' (Wilson, Pitman and Trahn, 1999). Much of the material supplied has originated from responses to the 1999 CAUL 'Quality/Best Practice Survey' and site visits undertaken as part of the EIP 'Best Practice in Australian University Libraries project'. All information is current to July 1999.

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### 3.1 Quality and Australian university libraries: an overview

The 'quality' movement in university libraries in Australia developed out of the climate surrounding the then Commonwealth Labour Government's Quality Audit of the higher education system during the period 1993–1995. The audit period created an impetus for the review and adoption of quality management programs both broadly across universities and also within individual university libraries, and saw the formalisation of 'quality' into university and library management documentation and terminology. Activity during this period included the development of the current suite of three CAUL performance indicators (see Section 2: Performance Measurement) together with a number of institution specific initiatives (see Quality Frameworks: Useful Sources: Experiences/Case studies).

The provision of quality management training to librarians since this period (see **Section D: Training and Related Topics**), has contributed to the interest in and adoption of quality frameworks and tools. For example, the Australian Quality Council, through its training programs, provides support and guidance for a national quality framework ñ the Australian Business Excellence Framework, and, through this, the Australian Quality Awards for Business Excellence. A number of libraries have successfully participated in the assessment process associated with the Australian Quality Awards since 1996,

including Northern Territory University, the University of Wollongong (see 4.4.1 below) and University of Melbourne libraries (see 4.4.2 below).

The current interest and activity in quality and best practice across the Australian University library sector may also be influenced by the structural settings of libraries within universities. Mergers between higher education and TAFE, and the convergence of library and computing services, have both played a role in libraries becoming interested in, and in some cases adopting frameworks, such the ISO 9000 series of standards or quality frameworks designed for vocational education and training. Some Australian universities including RMIT University, Swinburne and Curtin University have dedicated quality offices or units that encourage and support the implementation of quality practices across the university.

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### 3.2 Why implement a 'quality' program or framework?

University library managers see formal quality management occupying a significant place in contemporary academic and research libraries. Reasons cited for implementing programs by respondents to the 'Best Practice in Australian University Libraries' Quality/Best Practice survey (CAUL, 1999) included:

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Management and budgets	<ul style="list-style-type: none"> <li>• To support the trend towards performance based funding at some institutions</li> <li>• The need to measure library performance against business/strategic plan targets</li> <li>• The need to provide a quantitative basis to support submissions and recommendations concerning funding</li> <li>• To align management to university quality initiatives and programs/policy</li> <li>• To provide frameworks and impetus for effective management of programs in a climate of decreasing resources</li> <li>• As a framework for monitoring and measuring organisational performance</li> <li>• To ensure a systematic approach to assessing the effectiveness and efficiency of resource management</li> </ul>
Continuous Improvement	<ul style="list-style-type: none"> <li>• To ensure continuous improvement of services</li> <li>• To provide a climate for active staff in involvement in continuous improvement initiatives</li> <li>• To provide information on whether or not services are performing as expected</li> </ul>
Client Service	<ul style="list-style-type: none"> <li>• To ensure a continued focus on client service</li> <li>• To ensure a continued focus on the current teaching and research needs of the University</li> <li>• To progress and provide excellent services</li> </ul>
Internal process and practice	<ul style="list-style-type: none"> <li>• As a change agent</li> <li>• To help achieve staff satisfaction and well being</li> <li>• To assist in the measurement and review of staff and work group performance</li> </ul>

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A key factor in the adoption of a quality management program appears to be the ability of a suitable framework or model to provide library managers with the means to illustrate the library's commitment to responsible resource allocation and management. It is clear that the business environment that libraries are now operating within requires a 'new' approach to service delivery and accountability.

### 3.2.1 Criteria for successful quality programs

There are a number of common elements that make quality programs successful.

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Alignment/linking to strategic planning	<ul style="list-style-type: none"> <li>• Integration with the library's (and wider university) strategic planning processes leading to 'clear articulation of mission or purpose, values and goals' and support from the institution;</li> <li>• Planning system functions effectively to ensure implementation of improvements. Align with business, marketing and HR plans of the institution as well.</li> </ul>
Staff commitment and cultural change	<ul style="list-style-type: none"> <li>• Commitment from senior, middle management and supervisory staff</li> <li>• Senior manager, external facilitator or internal coordinator (or both) responsible for 'driving' quality</li> <li>• Middle managers prepared to relinquish some of their traditional decision-making responsibilities</li> <li>• Willingness of library to change as part of the process</li> <li>• 'Ownership' of the program by staff at all levels achieved through staff involvement in the development and implementation of the program, leading to opportunities for staff to see 'practical application and benefit of such a program to their work areas, and the library as a whole'</li> </ul>
Training and communication	<ul style="list-style-type: none"> <li>• Communication of the underlying principles to all staff</li> <li>• Ensuring continuous improvement by appropriate feedback and implementation mechanisms</li> <li>• Effective training programs to ensure commitment to continuous improvement</li> <li>• Development of processes and support mechanisms integrated into day to day ways of working, (especially dealing with information management)</li> <li>• Development and maintenance of effective teams, armed with knowledge of the principles of quality management and the tools</li> </ul>
Resource commitment	<ul style="list-style-type: none"> <li>• Adequate resourcing with stakeholders clear on the level of implementation, and the appropriate resources required</li> </ul>

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Source: *'Best Practice in Australian University Libraries' Quality/Best Practice survey (CAUL, 1999).*

The following comment, from Felicity McGregor (University of Wollongong) sums up the motivation behind that library's adoption of the Australian Quality Council's Business Excellence Framework:

*A major factor in selecting a program emphasising performance measurement was strategic; to ensure that the library would be equipped to meet future challenges ... Quality management was*

*adopted ... as a comprehensive and integrating framework which was applicable to the library's particular stage of development and to the successful management of current and perceived future environments (McGregor 1997, pp. 83).*

### 3.2.2 Theory into practice: successful quality program outcomes

In reviewing the responses, case studies and published literature and reports of libraries that have adopted quality management frameworks and/or tools within the Australian context, several common positive outcomes emerge:

- Improved client focus
- Staff satisfaction, improved morale, empowerment, improved work practices through emphasis on measurable outcomes (performance measures eg. BSC) and continuous improvement (benchmarking eg. AQC) that allow staff to see the results of changed or improved work practices, and processes and new initiatives.
- Strategic advantages for the staff and the library through alignment of institutional and organisational planning and strategic direction
- Smarter resource lobbying. The ability to use information from quality programs to lobby for and generate funding from University and external sources.

Positive outcomes, together with particular challenges are further outlined in the case studies included in this section (below).

### 3.2.3 Who drives quality?

In determining how to 'manage' quality libraries should consider:

- the overall organisational structure
- existing culture and staff expertise
- the experiences of 'like' organisations

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A designated Quality Coordinator	<ul style="list-style-type: none"> <li>• A member of the Senior Management Team is the Quality Coordinator, this has facilitated the successful implementation of these programs (Curtin).</li> <li>• The original Quality Steering group was replaced by a part-time Quality Coordinator and Quality Coordination Group in 1997. The Quality Coordinator works closely with the Manager, Planning &amp; Projects (Melbourne).</li> </ul>
Quality mainstreamed	<ul style="list-style-type: none"> <li>• Because the culture is one of continuous improvement and delivering client focussed services, there is no Quality Coordinator. A Strategic Initiatives Coordinator keeps tabs on the teams we use to implement aspects of our strategic plan, as well as undertaking project work'. 'We favour a model that has 'quality issues' mainstreamed, rather than set up 'quality management' separately, and run the risk of staff seeing quality and continuous improvement as something extra. (Deakin).</li> <li>• There is no separate Quality Committee because the decision has been made that the existing team leadership groupings should integrate quality issues into their normal functioning. The Quality Coordinator position is simply an initial catalyst. There will be some ongoing monitoring and coordinating functions, but these should not requires a separate position in the longer term. (UNSW).</li> </ul>
Quality teams	<ul style="list-style-type: none"> <li>• A Management Advisory Team made up of all team coordinators and level 7 staff and above which meets monthly to review and develop policies and communicate broader university issues to all staff. (Wollongong).</li> <li>• The '7 Up' group which consists of all library staff of HEW7 and above. All members of '7 Up' are also members of a Priority Area taskforce and responsible for promoting and propelling the Priority Area quality initiatives throughout the library and involving other staff in the initiatives. (Queensland).</li> </ul>

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Whilst over 50% of Australian university libraries currently have either a quality coordinator or senior management position with responsibility for quality issues and programs, others believe that it is preferable to mainstream quality and ensure broad staff support and input. For this reason, and in order to reflect the largely flat structure that a number of libraries now have implemented, quality in these institutions is driven by a team or group of staff.

### 3.3 Quality management frameworks: Level of adoption within the Australian university library sector

A thorough and sustained implementation of a quality framework, whether the result of a library only initiative or a university wide initiative is not an easy process, as the relatively small number of fully implemented frameworks adopted by Australian university libraries indicates.

Table 1: Standard frameworks implemented in the past or currently implemented

CHEMS	Queensland 1998 assessed against libraries framework
Balanced Score Card	Deakin (has added a 5th perspective—Information Resources to the standard Learning & growth, Internal business processes, Client/Customer and Financial management)
Australian Quality Awards for Business Excellence	Melbourne (1994; 1996 Winners of Award for Business Excellence; self assessment against framework planned in 1999); NTU (1998 Institution winners of Progress towards Business Excellence Award); Wollongong (via internal 'Quality and Service Excellence' program, 1996 award at achievement level for Award for Business excellence, 1998 Finalist in Outstanding Achievement category)
ISO 9000	Ballarat SMB TAFE arm (included Library but with focus initially on IT accreditation—see below)
ISO 11620	Use only to inform performance measures chosen (Curtin, ADFA)
NT Quality Framework for Vocational Education and Training	NTU (1998 Institution awarded Quality Endorsed Training Organisation status)
Swinburne Quality Management System (SQMS)—based on Scottish Quality Management System with links to AQA and ISO 9000	Swinburne (required by University to self assess on one or more SQMS key processes annually)
TQM	Elements of TQM in Wollongong QSE Program and use of TQM training and tools, QUT
TQS	Macquarie, UTS, VUT

(Source 'Quality/Best Practice Survey', CAUL, 1999)

Table 2: Partial implementation or progress towards/intention to implement

ADFA	Intended use of ISO 11620, using CAUL indicators where they are not inconsistent with ISO 11620
ANU	'Quality assurance about to be implemented as recommended by a review'
Ballarat	Interest in AQA but no decision as yet; ISO 9000 possible for IT sector as well
Curtin	ISO 11620 has been used to develop key performance indicators; University Program & Planning Review aligned with AQA criteria
Deakin	Looking at AQA and ISO models as part of 1999 exploration of frameworks as a strategic imperative
Griffith	Investigating adoption of AQA with a view to assessment either late 1999/early 2000
Melbourne	Embarking in 1999 on an organisational self-assessment project based on the Australian Business Excellence Framework
Monash	Consideration being given to ISO 9002 certification of digital library
Newcastle	Plan to use ISO in 1999
NTU	Considering extension of ISO 9001 to Information Resources
RMIT	Successfully participated in audit of RMIT quality management system for teaching and learning (ISO 9001 certification)  Used aspects of ISO 9000 and AQA through RMIT Quality Office/AQC sponsored quality review and improvement process for two process flows
SLSA	Considering using AQA framework for self-assessment
Swinburne	May participate in ISO 9000 certification being undertaken by TAFE arm in 1999
UNSW	Working towards extended Divisional compliance with ISO and self assessment and application for AQA award in 2000
USQ	Use the principles of AQA, Deming and ISO but no formal application for assessment
UTS	AQA criteria used to describe long term priorities for Library in a matrix
VUT	ISO 9000 being introduced to describe selected library procedures, one amalgamated campus successfully audited against ISO 9000 (WMIT)

(Source 'Quality/Best Practice Survey', CAUL, 1999)

### 3.3.1 Relationship between quality frameworks and tools

Libraries have described the relationship between the quality tools (benchmarking, performance measurement) and overall quality management programs in two ways:

- as a means to improve processes internally
- to improve the strategic position of the Library within the university community:

Process benchmarking is seen as one tool in the quality toolbox, it is linked to the strategic plan, process improvement and overall involvement in the University's organisational goals in Universitas 21 and Victorian relationships. We also link it to our application of the AQC Business Excellence framework (Melbourne).



Since benchmarking is a tool to enhance the ability to manage by fact and to contribute to process improvement it particularly contributes to the enhancement to those elements in a quality framework ... The Library target measure results are routinely used as part of annual planning review. (UNSW)

For more information see:

- Section 1 Benchmarking
- Section 2 Performance Measurement

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### 3.4 Applying a quality framework

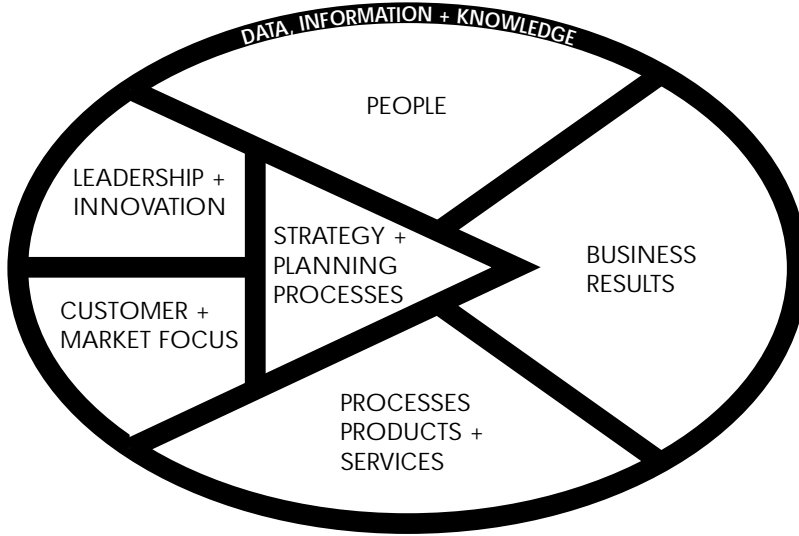
A number of different quality frameworks have been successfully applied in Australian University libraries. Whilst there are no prescriptive guidelines for application, the case studies included describe the process and outcomes of framework implementation in specific libraries. There is a perception that quality frameworks, perhaps because of their origins in the business and manufacturing sectors, cannot be applied within a largely service focussed environment. However each of the following frameworks have been successfully interpreted, adapted and implemented with positive outcomes for the libraries involved.

#### 3.4.1 Australian Quality Awards—Business Excellence Framework

The AQC framework was first developed in 1987. Updated annually it provides a roadmap for business improvement and long term success. It is both an evaluation tool for the Australian Quality Awards for Business Excellence, and a business improvement tool. It can be used for internal self assessment by any organisation wishing to improve its business results and ensure long term viability. It is also a useful tool to take stock of where your organisation is now, and to involve your staff in getting to where you want to be in the future. It focuses on key elements underpinning effective management practices.

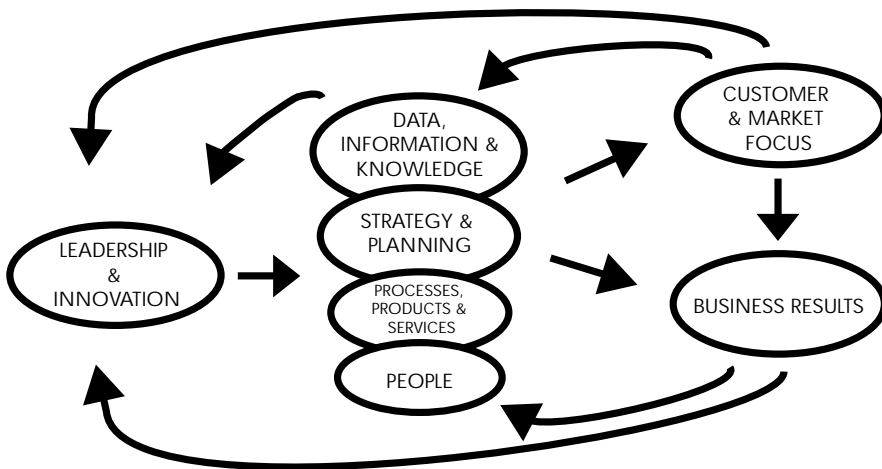
‘The Framework provides a means of introducing Business Improvement methodologies across all aspects of an organisation, regardless of industry sector. It assists organisations in implementing a planned and structured approach to achieving a competitive advantage, increasing productivity and enhancing innovation capability’ (AQC, 1998)

Figure 1: The Australian Business Excellence Model (The Australian Quality Council)



3.4.1.1 Seven criteria in the Australian Quality Awards for Business Excellence Framework

Figure 2: The Australian Business Excellence Model (The Australian Quality Council)



- Leadership and Innovation

This category explores how leadership uses the principles underpinning the Framework. It examines how management practice and behaviour are linked to those principles, and how their application has become a part of daily life. It also addresses how innovative leadership creates an innovative climate.

- Customer and Market Focus

This category addresses the way in which the organisation analyses its customers and markets, and how it reflects the needs of its current and future external customers in all its activities. Customer Satisfaction surveys, client focus groups and feedback mechanisms are some ways that libraries currently analyse and measure customer needs. Development of customer or client charters, mission and vision statements ensure visible focus on current and future needs.

- Strategy and Planning Processes

This category explores the way an organisation develops its strategies and plans, and how it communicates and deploys them.

- People

This category explores the way in which all people are encouraged and enabled to make a personally satisfying contribution to the achievement of the organisation's goals. Examples of how this might be adopted within a library environment may include the development of staff operational plans addressing leadership, communication, workplace relationships, staff development and training; development of a safe working environment; mechanisms for staff feedback etc.

- Processes, Products and Services

This category examines the processes the organisation uses to supply quality products and services to its customers, and the processes used to improve those products and services. Tools such as benchmarking (see Section 1: Benchmarking) enable libraries to evaluate processes and make improvements ensuring the delivery of best practice services.

- Data, Information and Knowledge

This category examines how the organisation obtains and uses data, information and knowledge to support decision-making at all levels of the enterprise. The development and use of performance measures is widespread amongst the library community (see Section 2: Performance Measurement) and contributes to the ability of the organisation to 'manage by fact'.

- Business Results

The intent of business results is to demonstrate the performance of the organisation to date and, by using appropriate measures, to envision its success into the future.

- The above information has been adapted from [http://www.aqc.org.au/abef/abef\\_busexcel.asp](http://www.aqc.org.au/abef/abef_busexcel.asp)
- Current information about the Business Excellence Model can be found at <http://www.aqc.org.au/>.

#### 3.4.1.2 Organisational self assessment

The Australian Quality Award criteria provide a consistent set of benchmarks against which organisations, including libraries, can evaluate themselves. A 'gap analysis', a key outcome of an initial self-assessment provides a basis for developing specific organisational strategies together with 'promoting the use of a uniform language and set of standards across the [organisation]' (AQC, 1998).

There are six essential features that are common to all self-assessment processes:

- The assessment focuses on the seven criteria that make up the Business Excellence Model (see 5.1.1 above)
- The assessment describes the current status of the organisation using the Approach, Deployment, Results, and Improvement phases (further information about the use of the ADRI approach within an Australian library quality management program can be obtained from the following source:  
Rice, T. 1997, 'Total Quality Management: Curse or cure? The University of Wollongong Library's quality and service excellence program' in *Interaction: The Client, the Profession, the Technology*, Proceedings of the 9th National Library Technicians Conference, Interaction, Canberra, pp. 53–64)
- The assessment is designed using a collaborative process involving a cross section of staff from throughout the organisation
- The assessment identifies and documents the strengths and opportunities for improvement
- The assessment is linked to a process that prioritises the opportunities, plans appropriate actions and follows through into defined improvement outcomes
- There is a clearly defined plan for repeat cycles of self-assessment to ensure that the organisation develops a culture of continuous improvement.

(Adapted from 'Quality concepts: an overview', OTFE, 1998):

#### 3.4.1.3 Benefits of self-assessment.

- Staff awareness of quality concepts
- The development of a high sense of ownership [by staff] in the findings
- A commitment to following through on improvements

The benefits of participation in the self-assessment and award process are further outlined in the following case studies.

#### 3.4.1.4 Australian Quality Awards for Business Excellence

The Australian Quality Awards for Business Excellence offer two levels of recognition:

The Award level, 'recognising leading Australian organisations currently demonstrating best practice across the Categories and Items of the Business Excellence Framework' (1999 Application Guidelines)

The Business Improvement Level, 'spurring on those organisations using the Australian Business Excellence Framework to achieve business excellence' (1999 Application Guidelines)

Current information about the Australian Quality Awards for Business Excellence can be found at <http://www.aqc.org.au/>

#### 3.4.1.5 Implementing the Australian Business Excellence Framework

The following case studies describe how two Australian University libraries have successfully adopted and implemented the Australian Quality Council's Business Excellence Framework. In both cases the adoption of this framework was made for strategic reasons including the need to develop a systematic approach to service delivery and the measuring of improvements in library processes and systems, the need to align library objectives with those of the university, and the need to ensure a commitment to customer needs now and in the future.

- Additional information about the quality journey undertaken by these and other libraries is referred to within 'Useful Sources' at the end of this section.

### 3.4.1.6 Case Study 1: University of Wollongong

#### *Choice of framework*

'A major factor in selecting a program emphasising performance measurement was strategic; to ensure that the library would be equipped to meet future challenges ... Quality management was adopted ... as a comprehensive and integrating framework which was applicable to the library's particular stage of development and to the successful management of current and perceived future environments' (McGregor 1997, pp. 83). The adoption of a formal quality management model has proven to be beneficial for us. We have adopted the Australian Quality Council's Australian Business Excellence Framework for monitoring and measuring organisational performance. This model was chosen as opposed to other management models for its organisational fit, and congruence with existing principles and practices'.

#### *Background*

A formal quality management program was implemented by the University of Wollongong Library in 1994. The objectives include:

- Development of excellent Library services through the implementation of a total quality management program: Quality and Service Excellence (QSE).
- Development of a systematic approach to documenting the improvements in client service which have been achieved to date, as well as providing a basis for measuring future improvements.
- Library-wide commitment and priority to the application of quality management principles to all processes and services.
- Establishment of a framework for regular self-assessment of the Library's activities and results.
- Library-wide focus on delivering increasing value to clients.
- Staff who are empowered to use their individual and combined skills and experience to improve processes and their outputs through needs-based training and development.

A Critical Success Factor Framework (CSF) was established in 1996 to identify areas that are critical to the ongoing success and sustainability of the Library. Key process and key performance indicators (KPIs) were also identified. Teams within the Library developed performance indicators for their key processes and services within the CSF/KPI framework. KPI reports are produced annually, however, teams monitor their processes and services regularly throughout the year. Benchmarking commenced in 1997 (see Section 1: Benchmarking).

Organisational self-assessment based on the Australian Business Excellence Framework criteria commenced in 1996, and was repeated in 1998. The decision to apply for recognition at award level in the Australian Quality Awards for Business Excellence was largely founded on the results of self assessment and other evaluation strategies that had been deployed to measure the organisation's progress in applying the Australian Business Excellence Framework. **Applying for the award enabled the library to test the rigor of internal assessment activities by obtaining an external and objective evaluation.**

At award level, an organisation must demonstrate its approach, deployment and results against 21 items linked to the seven assessment categories (see 4.1.1 above). A site visit was conducted by a team consisting of five evaluators, who had concluded their desktop evaluation of the submission against the principles and assessment items of the Business Excellence Framework. Over the course of a day, the evaluation team met with the management teams and a significant number of staff (either in focus groups or their natural work teams) to assess the integration and interpretation of the framework within the organisation. Of seventeen applications at award level, the Library was selected as one of six finalists in 1998.

- Additional information <http://www-library.uow.edu.au/About/QSumm1.htm>

#### *Criteria for successful framework implementation*

- Full support from executive management ñ a quality champion;
- Vision for the future ñ where does the Library see itself or want to see itself in the future;
- Team-based culture;
- Training in the use of TQM tools and principles, facilitation skills and basic statistical analysis and opportunity to practice the skills, eg Quality Improvement Teams;
- Ongoing communication of quality activities, initiatives and results;
- Reinforcement of the model, eg in planning, communication media to demonstrate it is not a one-off activity or a management fad;
- Recognition that leadership and initiative is not the sole responsibility of management; and
- Perseverance

#### *Training commitment*

(1994) QSE program—A consultant provided training in basic TQM tools and principles. Inhouse workshops on TQM Awareness were developed, and refresher training was also provided for staff who had not had the

opportunity to participate in a quality improvement team, and to introduce new staff to QSE. These workshops are repeated on a needs basis. Examples of in-house workshops include:

- TQM Awareness
- Quality Client Service
- Telephone Techniques
- KPI Workshops
- Benchmarking
- Data gathering and statistical awareness, use of EXCEL and statistical packages

**For more information about quality management training** at the University of Wollongong Library see:

- Section 4: Training and other issues
- <http://www-library.uow.edu.au/About/QSumm1.htm>

#### *Commitment to quality*

Wollongong have demonstrated their commitment to the QSE program and adoption of the Australian Business Excellence Framework in the following ways:

- Quality management principles have been incorporated into the strategic planning process, key strategies and actions are organised under Critical Success Factor (CSF) framework;
- Teams develop action plans which support continuous improvement activities and strategic objectives;
- Framing both the Annual report and monthly unit reports under CSF headings, to show the relationship of team functions to focus on areas such as customer satisfaction;
- Involving all staff in the process;
- Surveys (staff and client) are incorporated in the annual calendar of activities;
- Inclusion in core skills training for all staff, eg TQM Awareness training, Client Service training, team building, Key Performance Indicators

#### *Challenges*

- Initially, financial planning aspects were difficult to relate to work done within the Library. With the cultural change that has occurred, there is a feeling that this may no longer pose a problem as the Library has become more business focused, and it is easier to see links and relationships within



this context. There has been an uptake of statistical measurement and skills.

- Staff resistance was negated as team skills were built up using tools such as Myer-Briggs to identify individual strengths within teams. Cross functional teams support the framework, and enable the creation of links between good ideas and subsequent change or improvement.
- Articulating high level concepts (leadership etc) and placing these into a process flowchart.
- Process thinking applies less readily to some areas eg information literacy as opposed to serials data entry.

### *Achievements*

- Innovative solutions to problems with systems and resource limitations;
- Improved client focus from ALL staff ñ not just Information Services;
- Improved alignment of strategic objectives and team actions;
- Leadership demonstrated at all levels within the Library and commitment and participation by staff in the development of improvement goals and strategies;
- Benchmarking visits to partner businesses helped to place the role of the library into financial/profit oriented framework. Within the library context, profit was identified as maximising the value of the investment made by students for their education, and looking at the full range of what you do and drawing more out of it. There is value in visiting other libraries to place your own work in context. Improving internal processes can lead to more cost-effective practices and negate impetus for outsourcing (for example).

### *Advice/summary*

We have to get away from the concept that 'quality' is something extra we have to do. We expect, and often demand, quality service and products in our day-to day interactions, and if we are stakeholders in other businesses or groups, we expect that the resources will be managed well and provide value to others. These expectations are also valid for libraries, and will become increasingly important in a climate of economic uncertainty, technological innovation and changing supplier services/products, and relationships (McGregor, 1999)

(Information Source: Felicity McGregor, University librarian, Margie Jantti, Quality Coordinator, and members of University of Wollongong Library focus group, March 1999).

### 3.4.1.7 Case study 2: University of Melbourne library

University of Melbourne Library also uses the Australian Business Excellence Framework, and has been through the Quality Award process in 1994 and 1996 (winning the Award for Business Excellence). The Library is now using the framework for organisational self-assessment. The Library's quality program has evolved into a suite of integrated activities which includes strategic planning, continuous improvement of process projects, benchmarking, HR planning and related HR initiatives, organisational self-assessment, development of KRAs/KPIs/related performance measures and so. Quality improvement is seen as an ongoing journey of organisational improvement and cultural change.

In 1998, the Library completed an internal self-assessment against two of the AQ categories—Information and Analysis, Customer Focus. Each Division's performance against these categories was assessed using the ADRI model, and detailed reports produced. Self assessment resulted in recommendations for improvement which will now be acted upon. In 1999 assessment will be undertaken across all seven AQ categories, on a library wide basis. There will be some shortcutting of the process via questionnaires designed to define perceived weaknesses. A commitment to seeing recommendations made as a result of the self-assessment process implemented underpins staff commitment. Participation in the AQC Benchmarking Network has been deferred until all seven approaches have been clearly articulated. Implementation of quality management has increased:

- awareness of the need to look beyond the University and beyond the profession for ideas and opportunities,
- reflection on the nature of the organisation and its business; and
- use of information for decision-making and recognition of the need to question the status quo, and constantly seek to improve.

Use of the Australian Quality Council's framework has also informed the approach of the Australian Universitas 21 libraries to information sharing and improving performance.

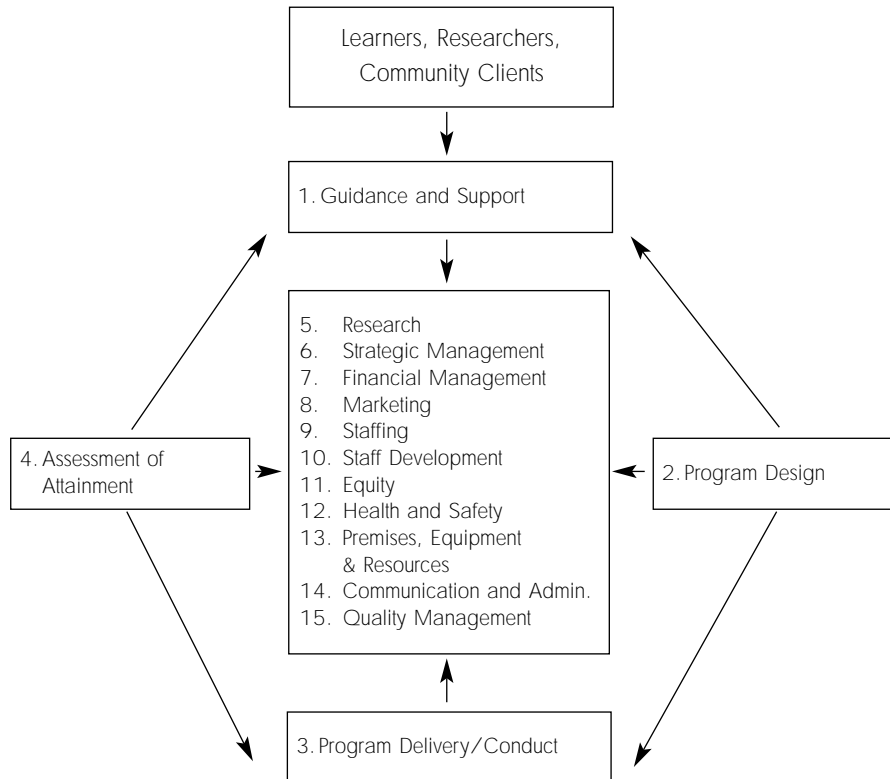
(Information Source: Angela Bridgland, Deputy University Librarian, Andrea Phillips, Quality Coordinator, Liz Neumann, Manager Systems and Standards, Tony Arthur, Associate Librarian, Information Resources and other library staff, March 1999)

For more information about the adoption and implementation of Quality frameworks and tools at the University of Melbourne libraries see:

- Phillips, A. 1998, 'Quality matters', *Ex Libris*, Issue 52, pp.10–12.
- Presser, P. & Garner, J. 1999, 'Quality self assessment project', *Ex Libris*, Issue 57–58, pp. 9–10.

### 3.4.2 The Swinburne Quality Management System (SQMS)

#### 3.4.2.1 Framework description



The SQMS model was originally based on the Scottish Quality Management System. SQMS is a system based around the needs of educational institutions (see <http://www.sconto.demon.co.uk/sqms.htm> for details on the system). It is defined within Swinburne documentation as 'A documented management system that meets the requirements of a defined standard, and designed to ensure that the quality of the programs and services provided by the University meet the goals and objectives. This management system also includes the documented process for continuous improvement' (Glossary—SQMS Formal Review Information Pack, quoted in Swinburne University of Technology 'Overview of SQMS')

Swinburne have adapted what is largely an externally assessed system to one that is used in-house, and is driven by a self-assessment process using the ADRI (Approach, Deployment, Results and Improvement) model. Self-assessment is undertaken on one of 15 criteria (see above) on an annual basis. These criteria have been adapted from the 14 standards that make up the basis of the Scottish system, with the addition of 'Research ñ the achievement of high standard research activity', as the fifteenth criteria specific to Swinburne.

In order to achieve improvements in key processes as described in SQMS, the Swinburne Quality Review Program (SQRP) was developed. This consists of continuous improvement through self-assessment and validation review. Organisational units are required to self-assess on 'one or more of the SQMS processes annually'. This is followed by validation reviews of selected units conducted by staff from other areas.

- A full outline of the SQMS and 15 key processes is available at <http://www.swin.edu.au/qed/overview.htm>.

#### 3.4.2.2 Implementing SQMS: Swinburne University library

*(Information source: Fran Hegarty (Director, Information Services), Denise Doherty (Manager, Information Support Services), Rose Humphries, Library Manager (Prahan Campus Librarian), Rob Carmichael (Head, Office for Quality Education), March 1999).*

The SQMS is an institution-wide system. In adopting the system to manage library planning and quality service delivery, Swinburne University Library have had the support and advice of the University Quality Unit and staff, who have worked actively with library staff to successfully implement the system.

#### *Why SQMS?*

From the Library perspective, SQMS is seen largely as providing a framework that has, unlike others, been developed specifically for educational institutions; is flexible; lines up with ISO and AQC frameworks, and yet is a quality management system in its own right. It has enabled the Library to assess and improve a number of services formally by identifying gaps/needs/areas for improvement, establishing the action needed to improve the service, and then setting targets for improvement. Overall quality management is seen to be 'high priority' and senior staff are now committed to seeing the adopted model work, and appear to be active 'sellers' to other staff.

### *Criteria for successful implementation*

SQMS is viewed as a flexible approach to quality improvement. The Program started with a series of pilot audits that were formal and not well received due to lack of integration with core business. There is now a closer alignment with the strategic planning process, and a movement away from corrective action requests, to a more developmental focus through internal benchmarking. This reflects the impression that quality at Swinburne is moving to a continuous improvement/self-assessment model, in line with the changed emphasis of the new ISO 9000 (2000) standard, and the Australian Quality Awards for Business Excellence Framework, rather than a model based purely on quality assurance/documentation.

### *Training commitment*

- On-going 'quality training' programs both in relation to the overview of SQMS, Australian Quality Council programs, and in areas identified as deficit eg. customer service training;
- A number of university staff, including members of library staff, have received internal auditor training;
- Quality facilitators also have ISO 9000 training;
- Benchmarking training has been conducted by an external trainer; and
- Self-assessment teams are cross functional and have been trained in best practice for teams.

### *Organisational features*

SQMS is seen as a process model for organisational change, working up from unit level to corporate level. Self-assessment scoring occurs at unit level. It is a top down and bottom up approach that encourages change from below, linked to organisational and institutional strategic priorities. Recently, the focus has changed from validation review, to validation through internal benchmarking, on the basis that potential outcomes are likely to be better, particularly in relation to continuous improvement and exchange of ideas. It is useful therefore when more than one area undertakes assessment of the same criteria in the same year.

To date the library has assessed performance against Criteria 13—Premises, Equipment and Resources (1995), and, at March 1999, was preparing for assessment against Criteria 14—Communications and Administration. Once every five years a full organisational audit is undertaken. Criteria are nominated for review on an annual basis. Developmental Action Plans (DAP) are developed as a result of feedback from the assessment process. These are

reviewed by the Validation team which then generates Corrective Action Requests (CAR). The earlier exercise involved a large amount of work re-analysing and re-interpreting criteria to match library needs at a micro rather than macro level. The subsequent 1996 Validation Review process saw a team of 4 validators, from all areas of the university, review documentation and processes and pick up on gaps. Questions from this team were submitted in advance of the site visit that focussed on one campus library only.

#### *How well is SQMS integrated into Library management and planning processes?*

Full integration has not happened as yet. Quality management processes are still not central in all undertakings. Cultural change is happening slowly. 'Quality' has become a standing item at all meetings of management/sectional groups.

#### *Relationship between SQMS and other quality frameworks and tools—CHEMS and benchmarking*

In 1998 CHEMS addressed benchmarking in library and information resources. This was largely a qualitative exercise addressing the following areas:

- Strategy, policy, planning and good management;
- Library services;
- Access;
- Collections;
- Support and training; and
- HR management.

The combination of CHEMS and SQMS has allowed Swinburne to assess performance at both organisational and unit level. Because of the external context of CHEMS, weaknesses identified against the statements of good practice are likely to be addressed sooner. The Library found the discipline of completing the questionnaire, and rating against statements of good practice, to be an excellent method for identifying and addressing areas for improvement—in this instance, external benchmarking provided a greater motivation to improve performance.

#### *ISO 9000*

The TAFE division at Swinburne will be seeking ISO 9000 certification in early 1999. The Library (which serves both TAFE and higher education sectors), is considering the possibility of being party to this.

### *Challenges*

Implementing any quality management system implies a number of challenges. Those encountered by Swinburne include:

- Implementation within a multi-campus/TAFE/Higher Education organisational environment;
- Communication—Effort has been put into communication through staff meetings, in order to encourage all library staff to see how and where the self-assessment process (for example) sits within both the overall program, and library specific services. In addition, multi campus challenges exist with respect to communication, and may include making connection back to senior management based at a specific campus, perceived over servicing at campuses etc.;
- Overcoming resistance to and encouraging ‘cultural change’; and
- Difficulties dealing with recommendations and corrective actions (as a result of the SQMS review process), when there are budgetary implications or lack of university resources, policies or processes in place to address the problem effectively.

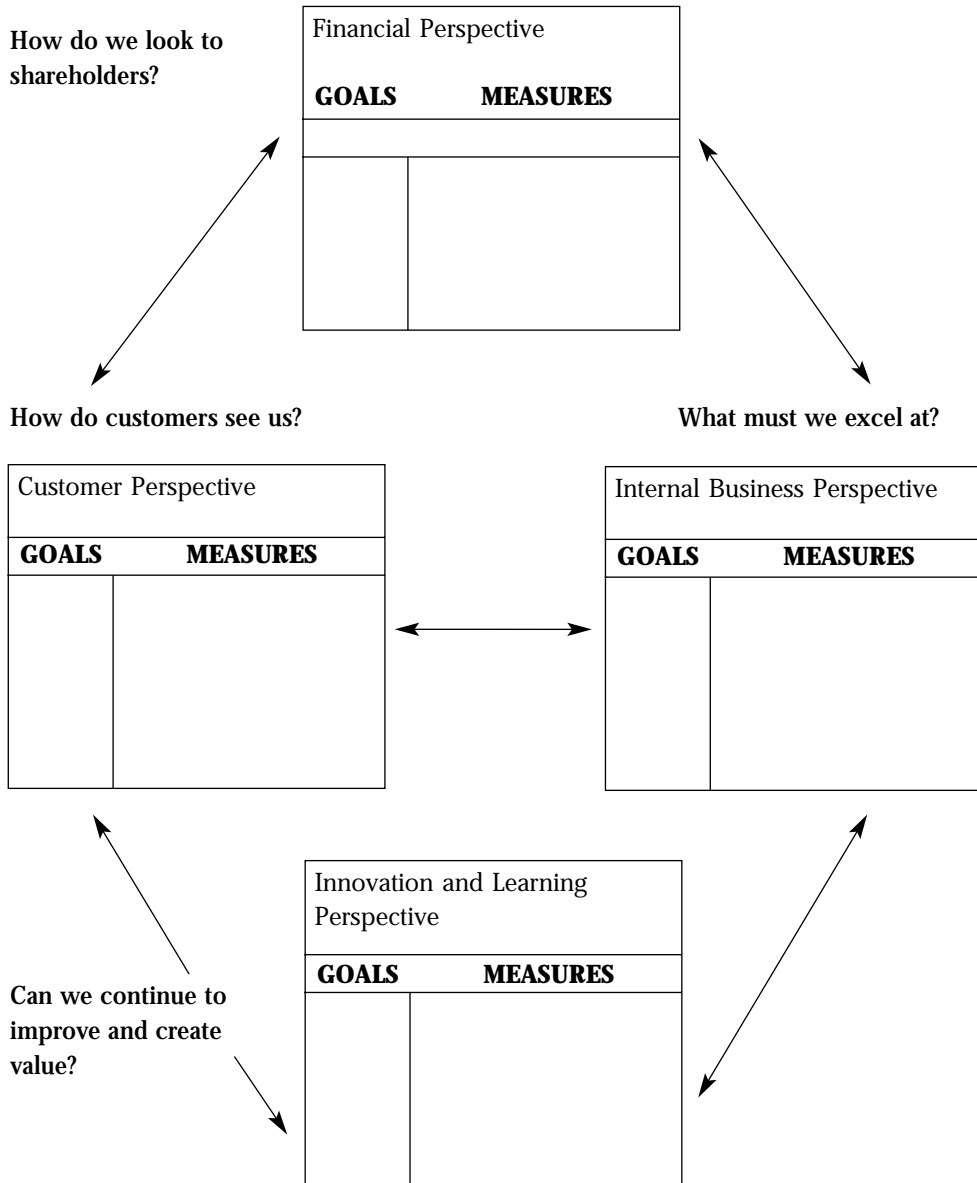
### *Achievements*

- Identified areas for corrective action; and
- Heightened awareness of the continuous improvement cycle

## 3.4.3 The balanced scorecard

### 3.4.3.1 Framework description

The Balanced Scorecard (BSC) is basically a way of grouping performance indicators with the additional advantage of providing a strategic management system. Developed at Harvard Business School by Robert S. Kaplan and David P. Norton, it has been primarily designed for businesses as a means of focussing beyond financial measures, to incorporate criteria that measure performance from three additional perspectives—customer satisfaction (Clients), internal business processes and the organisation’s innovation and improvement (learning and growth) activities.



*(Diagram adapted from Kaplan, R. S. and Norton, D. P., 1996, 'Using the Balanced Scorecard as a strategic management system', Harvard Business Review, Jan-Feb. , pp. 75-85.)*

In linking goals and performance measures the Balanced Scorecard provides a way in which managers, (and in Deakin's case Library managers), can monitor 'all facets of our work and service delivery. It is really a "quality tool" not just performance measurement'(see Case Study below).



### 3.4.3.2 Deakin University Library balanced scorecard

BSC provides a framework that the Library believes can be easily explained and understood by staff and others. It has been given increased relevance within the library environment through the addition of a fifth perspective – Information Resources ('satisfying demand for information from Library and other resources') to the existing categories specified by the Library as Clients ('providing value to clients to help them achieve their goals'), Financial Resources ('building financial strength to develop Library services and assets'), Internal Processes ('excelling at processes for fast, effective delivery of services and resources') and Learning and Growth ('enabling staff to lead and innovate').

As part of the initial planning process, Deakin University Library established a number of client focus groups from which 'we ascertained the hierarchy of values (or value models) of our clients, and these have been used to define the objectives within the five perspectives. For each Objective there are a number of high level performance indicators that are relevant in our environment. The high level performance indicators cascade down to Unit level indicators, and by the end of 1999, we hope, into individual performance indicators in the Performance and Planning review process' ('Quality/Best Practice Survey, CAUL, 1999)

#### Information resources

Satisfying demand for information from the library and other sources

- Items (including donations) held per EFTSU
- Periodical Titles per EFTSU

#### Financial resources

Building financial strength to develop Library services and assets

- Library consolidated budget per EFTSU
- Library expenditure per EFTSU
- (includes value of donations)

#### Clients

Providing value to clients to help them achieve their goals

- Academic staff satisfaction
- Student satisfaction

#### Internal processes

Excelling at processes for fast, effective delivery of services and resources

- Service Level Standards

#### Learning and growth

Enabling staff to lead and innovate

Staff Satisfaction

(Adapted from material supplied by Deakin University Library)

- For more information about the Balanced Scorecard:
  - Kaplan, R. S. and Norton, D. P., 1996, 'Using the Balanced Scorecard as a strategic management system', *Harvard Business Review*, Jan–Feb, pp. 75–85.
  - <http://www.benchmarking plus.com.au/Scorecard.html>  
Provides a summary of the advantages, disadvantages and possible pitfalls in implementing the BSC within [business] organisations.

#### 3.4.3.3 Implementing the balanced scorecard

Deakin University Library has successfully adopted and applied a program primarily aimed at commercial business operations to a service environment. The extent to which BSC will continue to influence the management planning process will be dependent on staff support, and continuing tangible improvement of planning and operational processes. Indications are however, that BSC has provided Deakin with the means to focus activity without losing sight of customer and client values.

An important aspect of the adoption of BSC has been its ability to provide a quality management and continuous improvement tool that can be 'incorporated into all aspects of library practice', allowing 'quality issues' to be 'mainstreamed, rather than set up 'quality management' separately and run the risk of staff seeing quality and continuous improvement as something extra'.

#### 3.4.3.4 Case Study: Deakin University library

##### *Background*

Approximately 3 years ago the Library began to focus on the library strategic plan as a means of developing future direction. Involving (and engaging) stakeholders in the process was seen as a key issue ñ this was achieved through the use of focus groups targeting key customer groups/levels of students. Groups were externally facilitated, and from the results the strategic plan was developed, and arranged to reflect what the stakeholders identified as key or important. There was some difficulty identifying measures for strategic directions ñ the Balanced Scorecard (BSC) was recommended by the consultants engaged to drive the process and after review was subsequently adopted.

##### *Organisational features*

Three teams have been formed (Information Skills, Information Resources, Access and Delivery) to advise library management on various issues, and

to facilitate implementation of the Strategic Plan. All professional level staff are involved in various working groups related to implementation. Non-professional staff are not generally expected to participate but are given both encouragement and the opportunity if interested.

The Library has a strong emphasis on keeping client needs in focus. This is achieved through:

- Annual focus groups.
- Strong liaison with student association and other groups.
- Extensive School based committee representation.
- Well-established academic staff liaison programme.

#### *How well is the quality management system integrated?*

The BSC is being built into all planning and decision making. Setting up the BSC has caused Deakin University Library to totally revise the way they present their Strategic Plan, Annual Report, what statistics are collected etc. A Strategic Planning Manager monitors teams created to implement aspects of the strategic plan.

#### *Relationship between framework and tools*

BSC has been the main impetus for development of performance measures/indicators within the Library. Customer satisfaction is measured in several ways. A University wide internal client satisfaction survey has been developed. Focus groups have been used successfully to identify a hierarchy of customer values as part of the BSC development and implementation. The intention is that focus groups will remain the main method of identifying client needs. Internal customer feedback processes are in place via online and written feedback.

Indicators to measure electronic access and use are seen as a priority area for development but it is extremely difficult to find effective measures. BSC includes general measures and targets related to 'Using physical and electronic information resources,' however these measures do not indicate what is used or the quality of the resource. Some work may be done in linking electronic measures to client satisfaction measures.

Benchmarking generally is not used as a tool within the BSC framework as it is generally viewed as having the potential to fix an organisation in a particular point of time or in one direction whilst ignoring customer interest and need in another. The Library is far more interested in the potential for continuous improvement through informal internal benchmarking rather than institutional/library comparisons.

### *Challenges*

A major challenge for Deakin may be the linking of BSC to other quality frameworks such as ISO, AQC and other models. Policies and procedures are being revised using a template recognised by these accrediting bodies. However the prime motivation is to get consistent policies and procedures rather than go for an award. The University Quality Facilitator is interested in supporting the Library to focus on AQC accreditation. The Library may use this as a way of looking at the 'gap' between BSC and AQC frameworks.

### *Achievements*

Staff have a sense of where we are going (strategic directions); we know if we are achieving what we set out to achieve (operational plans, BSC); we know the priorities (strategic plan). Because we can see where we are at any given moment in time we can easily communicate our achievements etc. As a result staff morale is high. The University can also see how our strategic plan aligns with the University's strategic plan, and therefore how the Library is contributing to the achievement of the University's strategic objectives.

*(Information source: Sue McKnight, University Librarian; Cate Richmond, Strategic Planning Manager; Helen Livingston, Deputy University Librarian, April 1999)*

## 3.4.4 International Standards Organisation ISO 9000 series

The International Standard ISO9000 series guidelines outline the only quality management system framework currently accepted worldwide. There are 20 possible areas that libraries can look at in relation to their own practices.

### 3.4.4.1 Possible requirements of the standards

The requirements of the standard sound alien to the library environment. In fact, it is not difficult to relate these terms to library activities. It is understanding what makes up effective quality management processes, not being able to memorise the terms of the ISO requirements which is important.

- There should be evidence of how planning to improve quality management is part of overall strategic and operational planning statements and policy pronouncements. These form part of the requirements under the heading of **Management responsibility**
- Planning, managing and maintaining quality management processes meets the requirements of the **Quality system** heading.

- Making sure libraries know of and are acting on client need is known as **Contract review**. This includes making sure requirements are clear and noted on records such as purchase order, ILL, research or reference query, request for information skills programs. In depth research requests which have a documented search interview process also come under this heading. It includes making sure services are clear to clients and resolving differences in expectations between Library and client. The use of evaluation to refocus services, is part of contract review. Contract review is an integral part of offering value added services or services which are redefined in some way as they are delivered.
- Providing access to new materials and new services or programs should be done through a **Design control** process which will develop specialised, value added services in a systematic way and in accordance with requirements specified by the user. This area might include developing electronic services and access, designing curriculum for information skills, or implementing new research support strategies.
- Through **Document and data control** processes important to managing quality of product and services are carried out correctly. This includes having staff with responsibilities for controlling, updating and making work related documentation accessible in its most up to date version.
- Ordering, receiving and paying for materials effectively are part of a **Purchasing** requirement. Purchasing requirements also covers selecting service providers, reviewing supplier performance and following merit based recruitment procedures to bring in appropriate staff.
- Providing user access to materials the Library does not own and ensuring these materials retain their integrity is part of the requirements under Purchaser supplied product. **Purchaser supplied product** may also cover accessing, retrieving or storing information from external databases. Safeguarding material owned by others, such as books on ILL, or material lent for exhibitions, lecturers materials held by Open Reserve is also part of this requirement. Users may need to be made aware of the sources of the materials in some of these instances.
- Having in place effective **Product identification and traceability** means being able to identify the origins of and track materials and information resources at all points through library systems. This includes tracking orders, tracking journal issues received, tracking intern-library loans and document delivery requests, tracking the source of a database, making sure sources are stated wherever possible in reference and bibliographic searches. Procedures for recording inquiries and follow up action are part of product traceability.
- Evaluating whether services meet client requirements and that staff are trained sufficiently to enable a seamless delivery of those services

demonstrates **Process control**. This also includes procedures for making sure staff are adequately trained to deliver services and that one staff member can take over from another confident that all previous steps in any process have been adequately carried out.

- Using processes to make sure resources are what is needed and are supplied without defects is part of **Inspection and testing**. This can include making sure that **Equipment** (computers, viewing equipment, peripherals such as printers, photocopy equipment) is checked for deficiencies and these deficiencies are remedied.
- If areas of weaknesses are easily identified, the development of services are tracked and versions of documentation are clearly noted, this is all part of **Inspection and test status**.
- Having effectively functioning processes for dealing with non-supply, incorrect or defective supply of resources including electronic resources, flagging aspects of services needing improvement, tracking responsibility for follow up and checking on process improvement are all part of **Control of non-conforming product**. This also includes systems for channeling customer complaints to process improvement.
- Documenting remedial actions and using these as part of the training process comes under **Corrective and preventative action**. Monitoring our service providers can also be part of corrective and preventative action.
- End processing, preservation and disposal procedures come as part of **Handling, storage, packaging and delivery** requirements. This can include receipting, cataloguing, shelf preparation and actual shelving and holding processes.
- Procedures for showing performance measures in all areas, including supplier performance, service delivery and training and for maintaining and making accessible order, processing (eg serial entry) and database records (catalogues) are included under **Quality records**. It also has to be shown how these documents are identified, ordered, updated and accessed over specific periods of time.
- Procedures for identifying training needs, ensuring staff have training opportunities and records are kept come under **Training**.
- Simple and thorough follow up with clients after they have received a service is part of the **Servicing** requirement. Effective overdue procedures in circulation, claiming processes in acquisitions and course evaluation and review in information skills are all included.
- The standardisation, sophistication and appropriateness of statistical data collected forms part of the requirements under **Statistical techniques**. Also included is the demonstration of the effectiveness of storing and accessing

data. This data can include client satisfaction data. The demonstration of a time series approach is required.

University libraries, unlike corporate libraries, or libraries in some specialised research centres, have not taken up the implementation of this set of standards to any great degree. The standards of the early 90's appear to retain the taint of their industry origins and many libraries claim the vocabulary and requirements are too rigid and process oriented and the documentation requirements too formal and onerous. Libraries which have actually successfully used the framework have done so in a practical and minimalist manner and not found these preconceptions to be barriers to process improvement.

The following table summarises the declared intentions of Australian academic libraries.

Partial implementation or progress towards/intention to implement ISO 9000 series of standards

Ballarat	ISO 9000 possible for IT sector
Deakin	Looking at ISO model as part of 1999 exploration of frameworks as a strategic imperative
Monash	Consideration being given to ISO 9002 certification of digital library
Newcastle	Plan to use ISO in 1999
NTU	Considering extension of ISO 9001 to Information Resources
RMIT	Successfully participated in audit of RMIT quality management system for teaching and learning (ISO 9001 certification) Used aspects of ISO 9000 and AQA through RMIT Quality Office/AQC sponsored quality review and improvement process for two process flows
Swinburne	May participate in ISO 9000 certification being undertaken by TAFE arm in 1999
UNSW	Working towards extended Divisional compliance with ISO
USQ	Use the principles of AQA, Deming and ISO but no formal application for assessment
VUT	ISO 9000 being introduced to describe selected library procedures, one amalgamated campus successfully audited against ISO 9000 (WMIT)

As the survey responses clearly indicate:

- recent mergers between Higher Education and TAFE institutions have led to interest in the level of adoption of quality frameworks within TAFE and how they might be extended across the new larger institutions. Specific examples include the University of Ballarat and Swinburne University of Technology.
- converging library/computing services or increasing digital library activity can also be a catalyst for the extension or implementation of ISO9000 approaches. Examples include NTU, Ballarat, UNSW and Monash.
- the influence of university wide certification moves which involve the Library, as at RMIT is also a factor and stimulus for involvement

Given the reasonable level of current interest, the fact that electronic services are more likely to become closely involved with or to merge with libraries in the future, and that the new ISO9000: 2000 series is likely to be:

- in plain language
- simpler and more integrated
- more closely aligned with the national quality awards frameworks such as the Business Excellence Framework of the AQA

The ISO 9000: 2000 framework, due by November 1999, as a truly global product, may be a framework with a real future in academic libraries.

(This section developed from material contributed by Isabella Trahn, University of New South Wales Library)

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## 3.5 Useful sources

### 3.5.1 Australasian sources

#### 3.5.1.1 General overview/texts

Cooper, M. 1996, 'The use of total quality management (TQM) in libraries and information services in Australia and overseas', (1995 Metcalfe Medallion essay), *Australian Library Journal*, vol. 45, no. 2, pp. 92–101.

Exon, F.C.A., Exon, M. J., Calvert, P. J. 1995, *Review of Library and Information Services in Australia and New Zealand*, (British Library R&D Report 6194), British Library, London.

Nicholson, F. & Rochester, M. (eds) 1996, *Best Practice: Challenges in Library Management Education*, AUSLIB, Adelaide.

*The QMS in VET Project—How to develop Best Practice Quality Management Systems in VET 1997*, Australian National Training Authority, n.p.

Recent mergers between Higher Education and TAFE institutions have led to increased interest in the level of adoption of quality frameworks within TAFE and how they might be extended across the new larger institutions. The QMS in VET project involved a consortium (Central Gippsland Institute of TAFE, Swinburne University of Technology (TAFE Division), TAFE Queensland and the Western Australian Department of Training) identifying the 'features of best practice in their different Quality Management Systems'. Outlines approaches to the management of quality within VET organisations, provides case studies, and identifies eight Critical Success Factors for Best Practice Quality Management Systems in VET. Swinburne



University was one of ten libraries visited as part of the 'Best practice in Australian University Libraries' project. A summary version of this document is available at <http://www.swin.edu.au/qed/qmsvet.htm> The complete text can be downloaded from the same URL.

Williamson, V. & Exon, F. 1996, 'The quality movement in Australian university libraries (findings of a quality audit survey)', *Library Trends*, vol. 44, pp. 526–544.

This definitive article outlines the progress of quality management activity in Australian academic libraries within the framework of the 1993–1995 DEET quality audit of Australian universities. The authors conducted a survey of university librarians 'perceptions of, and participation in, the quality audit process'. The results of this survey indicated that a significant number of university libraries were involved in the development of quality assurance processes and management, and have set a base upon which subsequent progress can be measured.

#### 3.5.1.2 Experiences/case studies

Byrne, A. 1995, 'Best practice at the Northern Territory University,' *Australian Academic & Research Libraries*, vol. 26, no. 1, pp. 17–24.

Australian Best Practice Demonstration Program, which operated prior to, and during, the quality audit period, was successfully used by the Northern Territory University Library to improve research information services from a client perspective. A number of specific projects were developed within the broader program. NTU library was one of only a few service organisations to adopt and work with guidelines largely aimed at commercial operations, and their experience remains a leading case study in the adoption of best practice and quality improvement processes and programs within the Australian academic library sector

Groenewegan, H. & Lim, E. 1995, 'TQM and quality assurance at Monash University Library', *Australian Academic & Research Libraries*, vol. 26, no. 1, March, pp. 6–16.

McGregor, F. 1997, 'Quality assessment: combating complacency', *Australian Library Journal*, vol. 46, no. 1, pp. 82–92.

Parker, D. 1995, 'TQS at the Victoria University of Technology', *Australian Academic & Research Libraries*, vol. 26, no. 1, pp. 25–30.

Phillips, A. 1998, 'Quality matters', *Ex Libris*, Issue 52, pp.10–12.

Presser, P. & Garner, J. 1999, 'Quality self assessment project', *Ex Libris*, Issue 57–58, pp. 9–10.

Rice, T. 1997, 'Total Quality Management: Curse or cure? The University of Wollongong Library's quality and service excellence program' in *Interaction: The Client, the Profession, the Technology, Proceedings of the 9th National Library Technicians Conference*, Interaction, Canberra, pp. 53–64.

Wilson, A. 1996, *Best Practice in Research Information Services: Final report May 1996*, <http://www.ntu.edu.au/admin/isd/qsd/bppage.htm>

Wilson, A. & Byrne, A. 1996, 'Implementing best practice in the Northern Territory University library: A case study', in Nicholson, F. & Rochester, M. (eds), *Best Practice: Challenges in Library Management Education*, AUSLIB, Adelaide.

### 3.5.1.3 Frameworks and other tools/manuals

Australian Quality Council 1998, (<http://www.aqc.org.au/>)

Australian Business Excellence Awards framework, Awards, publications. Management Competency Standard, organisational self-assessment, Australian Benchmarking Edge. The starting point for libraries looking to learn more about a quality improvement program that fits within recognised Australian guidelines, and that has been successfully adopted within the sector.

Chestnut, B. 1997, *Quality Assurance: An Australian Guide to ISO 9000 Certification*, Longman, Melbourne.

Textbook type material, but one of the few guides to implementing ISO 9000 within an Australian context. Clear and concise and useful for those wanting an understanding of basic concepts, procedures, documentation and the auditing process. One of the few to offer some guidelines for, service focussed organisations in the need for and interpretation of, the standard.

*The relationship between ISO series of Standards and Australian Business Excellence Framework* 1999, [Document included in TAFE Institute Organisational Self-Assessment Manual Resource Book, Office of Training and Further Education, Victoria, 1999].

Examines the relationship between the two most common frameworks used within the State Training System—ISO 9000 Series of Standards and Australian Business Excellence Framework. Describes both the main similarities and differences between the two frameworks, and ways in which organisations can move from 'quality assurance to business excellence'. Has particular relevance for university libraries operating in cross-sector environments.

## 3.5.2 International sources

### 3.5.2.1 General overviews/texts

Barton, J. & Blagden, J. 1998, *Academic library effectiveness: a comparative approach*, British Library Research & Investigations Report 120, London, British Library

Brockman, J. 1998, *Quality management and benchmarking in the information sector*, Munchen, Bowker-Saur

Brophy, P. & Coulling, K. 1996, *Quality management for information and library managers*. London, ASLIB/GOWER.

An authoritative work by two practitioners who initiated the ISO accreditation process for the Library at the University of Central Lancashire and contributed to early research and publication in the area. Covers an introduction to quality frameworks, with short chapters on ISO9000, performance measurement from the customer's perspective, national quality awards and TQM, as well as the British Citizen's Charter approach. Benchmarking and performance measurement are dealt with as tools which contribute towards TQM. Brophy and Coulling discuss a wide range of approaches under these headings:

- Clear purpose;
- Vision commitment and leadership;
- Teamwork and involvement;
- Customer oriented design;
- Systematic processes;
- Supplier awareness; and
- Training and education;

The last part of the book focuses on the application of quality frameworks to libraries. There is an interesting checklist in the final chapter, but little to grasp amongst the non- library examples quoted.

Garrod, P. & Kinnell Evans, M. 1995, *Towards library excellence: Best practice benchmarking in the library and information sector*, BLRD Report, London, British Library Research & Development Division

Garrod, P. & Kinnell, M. 1995, *Quality Management Issues: a select bibliography for library and information services managers*, The Hague, FID (FID Publication no. 710: Occasional Paper no.10: BLRD Report 6220 )

Jurow, S. & Barnard, S. (eds) 1993, *Integrating Total Quality Management in a library setting*, New York, Haworth Press,

*Library Trends*, 1994 special issue on quality

Manchester Metropolitan University. Centre for Research in Library and Information Management (CERLIM), <http://www.mmu.ac.uk/h-ss/cerlim/>

St Clair, G. 1997, *Total Quality Management in Information Services*, London, Bowker-Saur.

St. Clair outlines a series of critical questions to be examined around the headings:

- desire for quality;
- support of senior management;
- customer service;
- continuous improvement;
- measurement;
- trust and teamwork; and
- follow up review and ongoing quality.

### 3.5.2.2 Experiences/case studies

*Excellence 21* at Purdue University, <http://thorplus.lib.purdue.edu/ex21/>

An interesting example of a site, based at the library, but describing a long-standing institution wide program of Continuous Quality Improvement adapted from TQM. Has many useful links to other North American sites in higher education. Another example is the M-Quality program at University of Michigan Ann Arbor, but which does not have such a good web site. Staff from UMICH library presented at some North American conferences on TQM and academic libraries.

*Investors in people in higher education.*

<http://www.lboro.ac.uk/service/sd/iipihe/iipinh11.htm>

This paper examines at the application of this British Human Resources focused framework. A number of British university libraries, including the Universities of Central Lancashire and Wolverhampton, have already measured library human resources practices against this framework. The paper outlines the requirements, including examples of policy statements from British universities. The paper covers:

- commitment;
- planning;
- action;
- evaluation; and
- references.

A link at <http://www.lboro.ac.uk/service/sd/iipinhe/matrix.html> leads to documentation used by the Pilkington Library at Loughborough University in June 1998 to support an internal assessment using the IIP framework. This gives an excellent outline of the application of this framework in a university library setting. There are also useful links to the IIP home page.

### 3.5.2.3 Frameworks and other tools/manuals

Citizen's Charter, 1994, *Charter Mark Scheme: Guide for Applicants*, London, HMSO

Ellis, D. & Norton, B.1993, *Implementing BS5750/ISO9000 in Libraries*, London, ASLIB.

Now an older text but still very useful for its simplicity, brevity, and common sense. Still the only real 'how to' text available. The most valuable segments include a library-oriented checklist of quality system requirements according to the standard, and a simple framework for a library quality plan that covers inquiring, processing and delivering information. There are also words of wisdom on keeping documentation simple. Since it is aimed at the small special library market this manual may be insufficient for a university library but still worth consulting and more practical than the Scandinavian guidelines publication. (see below).

European Foundation for Quality Management (EFQM), 1996, *Self Assessment Guidelines for Public Sector*. Brussels, EFQM, <http://www.efqm.org/>

The sectors specifically addressed include healthcare, education and local and central government. Part 1 of the booklet outlines the EFQM and the nine criteria:

- leadership;
- policy and strategy;
- people management;
- resources;
- processes;
- customer satisfaction;
- people satisfaction;
- impact on society; and
- business results.

The balance of the publication covers six different approaches to self-assessment using the criteria and outlining their relative benefits. A number of university libraries in Europe are currently working on adapting this framework for quality management purposes in their own libraries,

including the Copenhagen Business School and libraries in the Netherlands. This model has also been included in the Loughborough University report on the application of quality frameworks mentioned above.

Great Britain, 1991, *The Citizen's Charter: raising the standard*, London, HMSO

*Investors in people in higher education.*

<http://www.lboro.ac.uk/service/sd/iipihe/iipinh11.htm>

This paper examines at the application of this British Human Resources focused framework. A number of British university libraries, including the Universities of Central Lancashire and Wolverhampton, have already measured library human resources practices against this framework. The paper outlines the requirements, including examples of policy statements from British universities. The paper covers:

- commitment;
- planning;
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- references.

A link at <http://www.lboro.ac.uk/service/sd/iipinhe/matrix.html> leads to documentation used by the Pilkington Library at Loughborough University in June 1998 to support an internal assessment using the IIP framework. This gives an excellent outline of the application of this framework in a university library setting. There are also useful links to the IIP home page.

International Standards Organisation. ISO 9000 explained at <http://www.iso.ch/9000e/magical.htm>

National Institute for Standards and Technology (US). *The Malcolm Baldrige National Quality Award Criteria for Education*,

[http://www.quality.nist.gov/docs/99\\_crit/99crit.htm#education](http://www.quality.nist.gov/docs/99_crit/99crit.htm#education)

National Quality Institute of Canada. *Canada Awards for Excellence (CAE) criteria*, [http://www.nqi.ca/new\\_web/english/html/nqi.html](http://www.nqi.ca/new_web/english/html/nqi.html)

## Section 4 Training and related topics

The aim of this section is to provide an overview of quality management training currently undertaken within Australian university libraries. The section covers both general 'quality' training, training in quality tools such as benchmarking and generic client services training. In addition the section provides an overview of the development and use of library competencies in the development of staff roles and training.

*'the future role of library workers very much depends on how well those within the sector ensure that their changing knowledge and skills service changing client needs and information applications. Job growth projections by DETYA consistently place librarians in the top percentile for demand of skills over then next 5–10 years. Continuing education and training therefore has a major role to play in securing the future for those within the sector. (Bridgland, 1999, n.p).*

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### 4.1 Training and Australian university libraries: an overview

Within the ever-changing library environment library managers have long realised that in order for staff to develop the requisite skills needed to ensure effective and efficient adoption and use of new technologies and services, considerable investment must be made in staff development and training. It is evident in looking at the results of the 1998 CAUL 'Best Practice survey' that a major shift has occurred in the use of staff training to ensure best practice service delivery. Where once there was a focus on generic skills (eg. customer skills) generally delivered either externally or as part of centralised university training programs, there are now a number of libraries adopting and developing specifically focused in-house training linked to broader external programs. In each case training occurs:

- for specific outcomes;
- is adapted to meet the needs of particular levels of staff; and
- reflects the new business environment we now must compete in.

Training to meet organisational goals is becoming the norm as libraries strive to ensure visible outcomes and funding objectives.

Both the literature and the 1998 CAUL 'Best Practice Survey' responses indicate that, whilst many libraries have embraced quality improvement initiatives with some ardour, the training and competencies required for staff to work effectively with the tools and techniques has not always been adequately addressed. Some libraries have recognised the need to ensure that staff have the appropriate blend of skills to perform effectively in this new, more accountable, and therefore more challenging environment, others have noted the need but have done less of a concrete nature in terms of training to date. On the one hand, there is an expectation that staff will apply new 'business related' principles and concepts in their work, while on the other there is evidence that they are not being given enough of the requisite knowledge and skills to interpret the language, and apply the principles in practice.

What is evident is that for libraries wishing to provide training opportunities for staff in any of the following areas, there is little in the way of an overview of where, how and with what outcomes others have approached training. Little sharing of training experiences, models and programs occurs formally across libraries though anecdotal evidence suggests that much informal exchange of information takes place. In addition there appears to be a shift in the general expectation that new staff come to organisations with the requisite skills and knowledge in place. More commonly staff are being selected for positions with evidence of specific attributes the main focus of recruitment.

#### 4.1.1 Training for benchmarking

The 1998 CAUL 'Benchmarking Survey' findings indicate a range of differing approaches to training for benchmarking:

- awareness sessions and seminars for senior managers; limited to those immediately involved in projects; briefings on data collection requirements for participants;
- workshops covering all aspects of benchmarking, working through the chosen model, internally or externally facilitated (eg. University of Wollongong library); and
- formal training evident in larger, institutional level projects (CHEMS) and external projects (AQC).

Survey responses to the question of what type of training/awareness was provided indicated a range of approaches from:

- awareness sessions and seminars for senior management and those closely involved in the projects;



- briefing and data collection requirements for staff immediately involved in the process; and
- comprehensive workshops covering all aspects of the benchmarking process—conducted by either internal or external facilitators (AQC).

#### 4.1.2 Additional sources of information on training for benchmarking

*It should be noted that this is not a comprehensive list. A number of additional training sources, bodies, individuals and library-based programs exist. The aim of the following is to provide a starting point only for those wishing to explore staff training for benchmarking.*

- See Section 1 of this handbook for information about benchmarking projects undertaken by Australian and New Zealand academic and research libraries including key contact details. Key contact staff may provide details of training programs developed to support specific projects at individual organisations.
- Australian Quality Council. Information about training programs offered under the auspices of AQC, including training for benchmarking, are available at <http://www.aqc.org.au/>
- Benchmarking in Australian website <http://www.ozemail.com.au/~benchmark/A> comprehensive source of information including contact details and links to training and other consultancy services.
- *Quality*, the journal provided regularly to all members of the AQC without further charge has one special focus training and professional development issue per year, providing an up to date directory of Australasian training sources. In addition, the major commercial training providers advertise regularly in other issues of the journal. AQC membership is a worthwhile consideration for organisations with an ongoing interest.

#### 4.1.3 Training for performance measurement

The 1998 CAUL 'Performance Indicators' and 'Quality/Best Practice/Performance Measurement' surveys indicated that most of the training undertaken in relation to performance measurement in Australian university libraries, was either specific to the application of one of the CAUL indicators prior to its use, or limited to staff involved in performance measurement activities. Only the University of Wollongong Library had developed a comprehensive approach to training in performance measurement techniques, through 'an in-house workshop on developing key performance indicators for all library teams (see below).

Training for performance measurement may be addressed in the following ways:

- briefings for senior and middle managers on the methodology and outcomes of the instruments;
- training in survey design and implementation techniques;
- training in data collection, data entry and analysis for staff immediately responsible for this activity eg using CAUL Performance Indicator B;
- incorporated into planning workshops. Strategic planning sessions for senior and middle managers may include a component on performance indicators. Basic training undertaken as outlined in CAUL manuals for staff immediately responsible for the data collection and analysis;
- planned for when the entire measurement framework is finalised. Part of a staged process of strategic planning, linking to processes and training staff in quality management approaches;
- staff are trained in the collection of data, both quantitative and qualitative, that is part of standard operating procedures, and are kept informed of the results of the quality management program through library publications and information sessions; and
- training occurs within the context of the Library's Quality Programme and the University's and the Library's performance review Scheme.

#### 4.1.4 Additional sources of information on training for performance measurement

A selective use of local academic sources for appropriate survey design, data collection and analysis sessions can be useful. A small number of commercial firms who train staff in industrial settings in the standard manufacturing data analysis techniques also provide more generalised sessions on statistical understanding which may be more useful in the library context. See the *Quality Journal* for current programs.

#### 4.1.5 Training for quality

The following aspects of training have particular significance for quality programmes in general:

- *Ownership*—in benchmarking where individual processes are subject to analysis, comparison and improvement, it is vital that staff accept that they have responsibility for, and authority over, their sphere of work. Staff need to receive training which will help them to become aware of the importance of their individual contribution to the organisation, and the impact this has on overall effectiveness. It should include an understanding of the relationships and interfaces with other processes and departments;

- *Cross-sectoral work*—provides opportunities for networking and training;
- *Library and Information Services courses*—education and training for quality needs to be included in initial qualifications for undergraduates and postgraduate LIS courses. There should also be mid-career updates in skills and knowledge;
- *Training in tools and techniques*—with particular focus on the use of quality management tools and techniques eg flowcharting, process mapping, cause and effect analysis, understanding of statistics and other measurement techniques; and
- *Business and management training*—there is a need for overall business training including financial, Human resource management, organisational development so as to set the process within the larger framework. (Garrod & Kinnell, 1997, p. 116).

A commitment to skilling staff in the appropriate skills and techniques carries with it certain resource implications. Libraries need to allocate both time and money to the issue of training. Training for quality means:

- ensuring that staff have a chance to participate fully, and are encouraged to feel that their contribution to the overall success of the organisation is valued;
- ensuring that all staff are kept fully informed of events and changes, and are also provided with opportunities to voice their opinions and make suggestions; and
- equipping staff with the knowledge and tools to carry out their jobs effectively and, above all, to develop an awareness of the importance of customer satisfaction within the overall objectives of the LIS. (Garrod & Kinnell, 1997, p. 117).

#### 4.1.6 Use of the self assessment process as a training mechanism

In the Australian context, and also in relation to other similar quality frameworks internationally, (in the UK and in Europe) the examination of the implementation/use of the framework in a comprehensive and regular manner, facilitated either internally or externally, using focus groups/workshops for staff from management to coal face level, can act as an effective awareness raising and educative mechanism. This approach has the advantage of relevance to the existing situation and a just in time approach to learning.

#### 4.1.7 Additional sources of information on training for quality

- Australian Quality Council. Information about training programs offered under the auspices of AQC, are available at <http://www.aqc.org.au/>
- *Quality*, the journal provided regularly to all members of the AQC without further charge has one special focus training and professional development issue per year, providing an up to date directory of Australasian training sources. In addition, the major commercial training providers advertise regularly in other issues of the journal. AQC membership is a worthwhile consideration for organisations with an ongoing interest.
- University of Wollongong have developed a number of in-house workshops including: TQM Awareness; TQM Plus; Quality Client Service. For more information see <http://www-library.uow.edu.au/About/QSumm1.htm>

#### 4.1.8 Training for quality: Some overseas case studies

The examples taken from two large US universities which have long established university wide quality frameworks provide an indication of:

- how large scale quality training has been organised;
- the wide range of such training programs; and
- how this training has impinged upon the library staff.

These snapshots are a useful comparison since such comprehensive programs do not exist in Australia.

##### *Training for quality (CQI) in a US University: Purdue: a case study*

Purdue University uses an external training consultancy to provide train the trainer materials and courses. The same organisation also delivers training directly to specific units. In the very decentralised framework of Purdue, where the power resides in the faculties, the central human resources arranges access to, but does not deliver, training. All trained trainers use workshops, and teaching materials and work books developed and supplied by the training organisation. The Continuous Quality Improvement based Excellence 21 quality program is predicated on teamwork and involvement, and this is the focus of training. Specific quality related programs available from the trainer's catalogue include:

- Quality through the eyes of the customer;
- Quality: the individual's role;
- Quality: the leadership role;
- Clarifying customer expectations;

- Resolving customer dissatisfaction;
- Solving quality problems;
- Tools and techniques for solving quality problems;
- Participating in quality problem solving sessions;
- Leading quality problem solving sessions;
- Analysing work flows;
- Focusing your team on quality;
- Building individual commitment to quality;
- Sustaining momentum for continuous improvement; and
- Making team meetings work.

The training area is planning to incorporate sessions beyond the basics such as *Tapping Staff Potential* which aims to:

- foster the service oriented culture in a seamless way (ie without unit barriers);
- identify client needs;
- provide exceptionally responsive service; and
- present continuous process improvement at a more sophisticated level.

The introductory awareness raising program is called *Mindset for Continuous Improvement*.

#### *Large scale training using M-Quality program to introduce leadership training: University of Michigan*

Michigan used the intellectual approach of delivering a large number of lectures from business gurus to try to win middle level support. This was appropriate considering that the whole program came about because the Head of the Business School became head of the university.

At the lower level, training was extensive and consisted of team leader and facilitator training of forty hours for facilitators, which included two hours of introductory concepts, eight hours refining tools and processes and how to select appropriate improvement projects to work. These had to be critical business practices in individual units, something significant enough to make an impact on yet also within their power to change. No team was allowed to go off 'doing' something until the leader(s) had been through this training. All projects had to meet certain criteria before time is spent on them. All teams must have a leader and a separate facilitator who monitors the process rather than the content.

Almost all University of Michigan Libraries staff attended a brief general orientation to M-quality and its concepts. About forty staff went through team leader training and about a dozen of these attended the forty-hour facilitator training. Some people facilitated more than one team, others were short-term leaders/facilitators when others left the organisation. The Facilitator group had a management literature awareness raising and experience-sharing group going for a while with a regular core of facilitators.

At the time M-Quality was implemented, there was no management training provided within Michigan from the centre, so staff in the Libraries received some de facto leadership training through M-Quality courses. HRD have since developed the initial management training and recently put in place an excellent program. For a number of library staff M-Quality was the first and only source of supervisor training and they are grateful for the extensive nature of the training.

If a unit requires further refining choices of improvement processes, or needs to learn skills to use in Managing by Fact, HRD can be called on for a consulting fee. Course attendance is also charged out to customers units because the HRD has to generate its own income and basically be self-sufficient.

For ordinary non-academic staff M-Quality means a range of things. It could mean being on a team, it could mean trying to implement 'Quality in everyday activities' (if not officially on a team). A publication 'Becoming involved in M-Quality' was written by a team of enthusiastic staff to interpret how M-Quality could influence each worker, even if they were not on an improvement team.

The multi-day annual M-Quality Expos which were showcases for improvement teams have evolved into a type of internal trade exhibition with an accompanying mini-conference on developing issues in running the University. This is seen as a consciousness raising mechanism for staff who attend those sessions as well as visit the Expo.

#### 4.1.9 Client skills training

Traditionally libraries have focussed training programs both for new and existing staff in areas related to dealing with library clientele. These programs often tap into the plethora of generic client service training that is available through any number of commercial and industry specific bodies. Often this type of training forms part of university centralised staff development programs.

#### 4.1.10 Useful sources of information for client services training

- Allen, B. 1999, *Developing information and library staff through work-based learning: 101 activities*, London, Library Association.

This practical book describes a resourceful alternative approach to staff development based on work-based learning methods, self-development and in-house resources, which offers a means of focusing learning on the needs of the individual. The book is organised into three parts: Part 1 covers practical strategies for development and management of learning skills in the workplace, Part 2 comprises 101 methods of work-based learning in library and information organisations eg benchmarking, job-rotation, mentoring, project work, Part 3 provides a useful guide to resources currently available on work-based learning.
- Bessler, J.M. 1994, *Putting service into library staff training: a patron-centered guide*, Chicago, American Library Association.
- Casteleyn, M. 1993, *Promoting excellence: personnel management and staff development in libraries*, London, New York, Bowker Saur.
- Cotter, R. 1995, *Profile of training programmes in Australian academic libraries: for staff working at enquiry desks; results of a survey conducted in 1993, Part 1*, Melbourne, Vic., Royal Melbourne Institute of Technology.
  - Presents the results of a national survey of training programmes undertaken by staff rostered at enquiry desks in academic libraries across Australia. The survey was conducted in 1993 and involved administering a questionnaire designed to collect details of:
    - provision and range of training programmes
    - statements of reference desk philosophy and related policies
    - other associated factors such as number and classifications of staff rostered, and hours that the enquiry desk operates during different periods of the academic year.
- *Human development: competencies for the twenty-first century*/edited by Patricia Layzell Ward and Darlene E. Weingand. Munchen, Saur, 1997.
  - Papers from the IFLA CPERT Third International Conference on Continuing Professional Education for the library and information professions. The papers in this volume reflect the substantial changes that are sweeping the information professions toward the new century. The content addresses five themes:
    - continuing education planning: individual and institutional
    - models to cope with growing continuing education needs
    - measuring continuing education needs
    - user education: the librarian as educator
    - training the trainer.

- Novak, J. 1994, 'Value for money: getting the most out of an external training programs', *Australian Academic and Research Libraries*, vol.25 no. 1, pp. 1–8.
- Oldroyd, M. 1996, *Staff development in academic libraries: present practice and future challenges*, London, Library Association.
- *Staff development: a practical guide*, 2nd edn/coordinating editors, Anne Grodzins Lipow and Deborah A. Carver, Chicago, Ill., LAMA, 1992.
- *Staff training and development: a SPEC kit*/compiled by Messas Kostas, Washington D.C., ARL, 1997.
- Walters. S. 1994, *Customer service: a how-to-do-it manual for librarians*, New York, Neal-Schuman.
- Wilson, Anne, *Customer Service bibliography*, available at <http://www.ntu.edu.au/admin/isd/qsd/cussvbi.htm> A list of useful material focussing on customer service measurement and training compiled by Anne Wilson, Quality and Staff Development Coordinator, Northern Territory University.

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## 4.2 Competency standards

The Australian Library Industry Competency Standards have been developed under the umbrella of the National Training Agenda. They were first published in 1995. The introduction of competency standards provides industry and enterprise with benchmarks against which it is possible to:

- identify the skills and knowledge of an organisation;
- ensure that workers are able to acquire necessary skills and knowledge; and
- measure performance levels within an organisation. (ALIA Workshop booklet 2, 1997, p. 5).

Once identified, industry competency standards form the basis for a nationally consistent framework by which workers can:

- have their existing skills assessed against the framework and formally recognised (competency based assessment and skills recognition);
- have improvement in those skills organised about the competencies (competency based training), and
- have access to skills based higher levels of remuneration (skills based pay).

The library and information industry has now received its first set of national competency standards. Whether they will be widely adopted by libraries, and how they will be applied and assessed, remains to be seen. To date, the only evidence of acceptance has been their preliminary use in two public library



systems in New South Wales, four academic libraries in Western Australia, New South Wales, Victoria and the Northern Territory respectively and one State Library (Tasmania). The majority of libraries appear to be adopting a 'wait and see approach' (Bridgland, 1998, p. 174).

The Australian Quality Council has also produced Quality Management Competencies that are nationally endorsed standards, as are the Library standards. These are written for staff at all levels, and can be used to assist with defining training needs in relation to quality awareness.

#### 4.2.1 Standards

- Australian Quality Council 1999, Management Competency Standard, (<http://www.aqc.org.au/mcsfbe.htm>).
  - AQC have developed a range of competencies designed to help organisations identify individual management skills across a number of levels of individual responsibility and authority. Aligned to the Business Excellence Framework these competencies are being looked at with increasing interest from libraries keen to define management position responsibilities in terms of industry accepted standards.
  - Arts Training Australia 1995, Library Industry Competency Standards, Arts Training Australia, Woolloomooloo, N.S.W.
  - Australian Library and Information Association 1999, Work Level Guidelines for Librarians and Library Technicians 1998, (<http://www.alia.org.au/publications/wlg/>).

#### 4.2.2 Additional sources of information—library competency standards

##### *General overview/texts*

Australian Library and Information Association 1996–7, *Competency Standards and the Library Industry: A Workshop Series*, ALIA, Canberra.

The ALIA Board of Education has produced four workshops on competency standards and the library industry. Designed as self-paced packages workshop topics are: An insight into competencies and competency standards; An introduction to levels of competency and the Library Industry Competency Standards; Linking the industry competency standards to your organisation; Workplace assessment and the Library Industry Competency Standards. Further information and an overview of related publications available from (<http://www.alia.org.au/competencies.html>).

CREATE Australia (n.d.), *Libraries and Museums Industry Training Package*. In preparation.

#### *Experiences/case studies*

Bridgland, A. 1996, 'Potential applications of the library industry competency standards at the University of Melbourne Library', *Education for Library and Information Services: Australia*, vol. 13, no. 1, pp. 83–89.

Nicholson, J. & Bridgland, A. (unpub.), *Library Industry National Training Package: Friend or Foe for CPE?*

Describes the development of the Library Industry National Training Package and the adoption and use by the University of Melbourne Library of the industry standards in development of IT competencies aligned to position levels. Discusses related issues including training needs, assessment, staff resistance and motivation and concludes that there is a place for competency standards in providing a means of both improving and ensuring quality assurance of CPE programs across sectors.

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Published both online and in print these guidelines form the basis of defining roles and tasks for staff working in different positions within libraries. Effective performance within the roles outlined is linked to the Library Industry Competency Standards and Australian Qualifications Framework levels.