The Quality Movement in Australian University Libraries

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ABSTRACT

THE AUSTRALIAN GOVERNMENT REORGANIZED the national higher education system as a key strategy in its regeneration of the Australian economy. From 1993 to 1995, a Quality Audit was begun to ensure that this reorganization was having the desired outcome; effective quality processes were rewarded by supplementary grants.

This article describes this process as viewed from the responses to a questionnaire circulated to Australian university librarians in 1994. The results show that, in many cases, university libraries were ahead of their universities in the introduction of quality assurances processes and management, and that a high degree of education in quality was reported within their senior management.

Introduction

Australian university librarians have always made quality client service their top priority, although it is only recently that they have begun to learn to wrap their package in the "quality speak" which followed the rediscovery of Deming by the Americans in the 1980s. Indeed, while a wave of Total Quality Management (TQM) swept across Australian corporate life, university librarians were not lagging behind in implementing the concepts in their management styles.

However, the quality movement in Australian university libraries has to be viewed against the background of the Australian federal government's industrial reform agenda. The Labor government won the 1984 general election and immediately introduced (among other reforms) an industrial reform agenda. Their mandate for this was reinforced by an Accord agreed upon by the federal government and the trades union movement. The proposed reforms might be characterized as the transformation of the Australian economy into a deregulated market-driven economy, with extensive privatization of existing government enterprises (profitable or otherwise), a recognition of Asia as our primary area of market expansion, and the key role of education in the necessary reskilling of the labor force. A key component of this movement was the creation of a new mega-department—the Department of Employment, Education and Training (DEET), whose name signaled a new socioeconomic accountability for education, and which took responsibility for higher education among other education sectors.

Until 1984, the Australian higher education system (which had included the Technical and Further Education [TAFE] organization) consisted of universities (founded at various times since the nineteenth century and including those universities founded during the Whitlam expansion of the 1970s) and colleges of advanced education (CAEs). The latter were designed primarily to support the growing need for teachers for the primary and secondary sectors but quickly grew to encompass general degree-awarding bodies. These included the institutes of technology, which were intended to provide the technological basis for the reform of the Australian economy (Exon et al., 1995).

There has been considerable growth in higher education enrollment in Australia since the 1960s. This was particularly apparent between 1968 and 1976 when the number of enrollments at higher education institutions (excluding technical colleges) more than doubled from approximately 143,000 to 290,000. Thereafter, the increase in the number of university students leveled off, but the CAE student numbers continued to grow although more slowly. In 1992, the total enrollments in higher education institutions, excluding TAFE, was 559,365-almost a double increase since 1976.

The 1984 Labor government decided to reform higher education as a key critical success factor in the achievement of its economic objectives by removing the previous binary division between universities and Colleges of Advanced Education, thereby creating a Unified National System (UNS) of higher education. This was achieved with some pain, but eventually, in 1993, thirty-six public universities emerged along with three private universities (Department of Employment, Education and Training, Higher Education Division, 1993). Owen (1992) estimates that there were over 200 TAFE colleges in 1992. The Minister of Employment and Education who initiated these changes was John Dawkins who later became Treasurer. The amalgamations coincided with a period of economic recession. DEET responded to a variety of pressures by launching a quality audit of universities in 1993.

THE QUALITY AUDIT

The methodology for the audit was loosely based upon one developed by the Scottish Education Office and used by the British government for the quality audit of British universities. A significant variation from the British pattern was the much smaller amount of money available as a "reward" and the much reduced duration of the evaluation visit and the quantity of information required. Nevertheless, the Australian teams had direct access to the British officials' and auditors' experiences and developed a range of auditing techniques.

As a direct result of the reorganization associated with the UNS, the Linke Report (Performance Indicators Research Group, 1991) identified the quality of teaching as an important issue. This was followed by a quality audit using a three-year cycle which, it is said, was developed with advice from the Scottish Higher Education Audit Office. The first year of the cycle, focusing generally on teaching and learning, research and development (R&D), and community service, was completed in 1993. The second year focused on teaching and learning (1994) while the third year, focusing specifically on R&D and community service, is currently underway and will include examinations of libraries. The cycle will conclude in 1995 and is unlikely to be continued. The minister has traded some of the funds needed for the review against protecting the rest of the education budget. However, there are likely to be two reviews of university management in the next few years (Universities'..., 1995).

The valuations of the first round resulted in a now infamous "ranking" of universities into six bands based upon the audit panels' judgments of their quality assurance processes (Department of Employment, Education and Training, 1994). The relative positions of universities which had previously held their own views of their position in the pecking order and were unchallenged by anybody, now found themselves, in some cases, not just judged differently but having those judgments placed firmly into the public domain. Subsequently, the rankings were published in a standard guide to good universities used by students (particularly overseas), a group that was largely full-fee-paying students.

The first round was something of an experiment and looked very disorganized—e.g., timetables, guidelines, and criteria arriving too late. Furthermore, the short duration of the audit visits (one-day) did not seem sufficient to do a thorough audit. Worse, the rules were changed while the evaluation was in progress. To begin with (while the Minister was Kim Beazley), the "top" fifteen universities were to be "rewarded" by supplemental funding for quality development. After Beazley's replacement by Simon Crean, all universities were graded within six bands, each band being awarded quality development funds as a percentage of their budgets, the higher bands receiving larger percentages than the lower (Department of Employment, Education and Training, 1994). This led

to excruciating anomalies since small universities (which, therefore, had proportionately small budgets) were classified in higher bands alongside large universities, the latter receiving larger sums in real terms. The reverse happened in the lower bands where large universities would receive large payments in real terms even though they had been classified with small universities.

The process remains subject to intense criticism, and its workings remain a mystery despite a detailed report referring to correlation, cluster analysis, and factor analysis (the committee never revealed the nature of the data nor the results of their calculations) (Department of Employment, Education and Training, 1994).

The entire quality audit was marked by confusion both within DEET and several universities and between education processes and outcomes and quality assurance processes. The quality audit did not adequately examine the quality of the education processes and outcomes but focused on the quality assurance policies and practices in place to monitor the educational processes and outcomes. The rankings by DEET should be regarded, therefore, as reflecting the adequacy of the university's quality assurance processes, not the quality per se of the university. Thus, the fact that Sydney University, one of Australia's oldest, most prestigious, and internationally recognized universities was put into the second rank is more a reflection of DEET's judgment of its quality assurance programs than of its educational quality. At the risk of laboring the point, it is worth mentioning that the universities which "did well" (in terms of rankings) were those which had excellent quality assurance policies and practices in place and were able to speak the language of quality irrespective of the quality of their educational offerings.

Anecdotal evidence suggests that while DEET will complete the first three-year cycle of quality audits, they were never designed as more than a device to deliver a shock to a system which they regarded as having "lost the plot," and that the adoption of quality service management by the universities will be for DEET a satisfactory outcome, and that the cycle will not be repeated. This, if true, may be just as well, for several universities (in all ranks) were reportedly considering withdrawing from the audit if they did not achieve what they regarded as a satisfactory outcome from the second round. Given the paucity of the financial reward, this is hardly surprising.

It must be acknowledged that the country's investment in higher education, the scale of the budgets of individual institutions, and the potential role of universities in the achievement of society's goals, all render universities subject to substantial public accountability. It is highly likely that the system created by the amalgamation of larger and older universities with newer smaller colleges benefited from the scrutiny of their management practices and quality assurance processes.

QUALITY INDICATORS AND LIBRARIES

During the evaluation period, libraries began to intensify their efforts with respect to quality and accountability. The Council of Australian University Librarians (CAUL) had transformed itself from a somewhat inwardly focused group into an effective lobbying group and worked well with the Australian Vice-Chancellors' Committee (AVCC). The Ross report (National Board of Employment, Education and Training, 1990) was a government inquiry into academic libraries, and its recommendations, along with a range of recommendations from other meetings, formed an agenda for action which is now complete. These ran the gamut of issues facing university libraries and, taken together, form a comparison with the UK Follett Report (Joint Funding Council..., 1993).

University libraries had also been concerned with certain aspects of quality management, including performance indicators. Since 1953, academic libraries in Australia and New Zealand had contributed statistics for a growing set of indicators, which are published in an annual supplement to the journal Australian Academic and Research Libraries (AARL). The data collection has been managed by various libraries on behalf of CAUL and is now managed by CAVAL (Co-operative Action by Victorian Academic Libraries), a library cooperative in Victoria. CAVAL can now supply data for the two years of their management of the process in electronic form, while data from 1969 to 1991 are available from Curtin University's FTP archive.

These statistics have biblical status among university librarians and have been modified over the years in response to changing circumstances and imperatives. There are, however, some curious gaps. For example, there is no report of institutional finances, thus preventing calculation of a library's budget as a percentage of university funds. CAUL is currently re-examining the types of data being collected.

There has been a number of writings on performance measurement in the Australian professional literature. Exon and Ecclestone (1988) reviewed the statistical sources then available to Australian librarians, and it is possible that the Australian Council of Libraries and Information Services (ACLIS) may update this. A national "think tank" on library statistics was held in 1990 revealing measurement gaps (Exon & Smith, 1990). McIntyre (1984) had developed some performance measures for public libraries, while Henty (personal communication, 1989) wrote an excellent review article on performance indicators for CAUL; a version of this paper was later published (Henty, 1989). Maguire and Willard (personal communication, n.d.) wrote an incisive critique of the theory underlying the development of performance measures for libraries, notably relating the work of Orr (1973) and Buckland (1988). Several authors had addressed the issue from various viewpoints (e.g., Broadbent & Lofgren, 1991; McIntyre, 1984; Ralli, 1987; Sheppard, 1990). There has

even been a manual of performance measurement for Western Australian Public Libraries produced (but not published).

Beyond writing, there have been various training events. CAUL (which meets twice a year) ran a seminar of Total Quality Management in association with the Australian Information Management Association (AIMA) before its October 1994 meeting in Sydney (Selected papers, 1995). The papers reveal a range of approaches to quality management practice.

Within the Australian library profession, there are two principal sources of training in quality management methods. The ALIA runs courses organized on national and state levels (reflecting the structure of ALIA). Meanwhile, AIMA, originally a clone of the Association of Research Libraries' Office of Management Services, has recently offered to run courses. While there is a range of offerings of short courses from the tertiary sectors, a number of other organizations provide training in quality management. In particular, the Australian Quality Council (AQC) not only provides one course as well as a hierarchy of certificated courses, it also runs a national quality award scheme. Standards Australia runs courses relating to the ISO 9000 series as well as certification in quality auditing. All of these courses are open to librarians.

Meanwhile, CAUL has funded a project to select and develop performance indicators for Australian university libraries. It is perhaps an indication of the fragmentation of the library profession that none of the "standard" sets produced in other countries were considered suitable for Australian conditions. For example, performance indicators discussed by Van House and Weil (1990), Kantor (1984), or Keys (1990) were not regarded as applicable, and it is not evident that the work done by SCONUL (and previously by COPOL) is considered suitable either, although both sets of work are well known within Australian university library circles.

The CAUL performance indicators project is interesting in that its first stage consisted of a questionnaire survey asking university librarians to select their preferred performance indicators from a list culled from the literature and to specify others which they would like to see. From these results, a set of three was then identified, and separate consultants were employed to develop them. These have now reported, and the three performance indicators are: (1) library/client congruence (or satisfaction), (2) document delivery quality, and (3) availability. The reports are available at cost from CAVAL.

Within this context, the authors wished to discover more about the training, experiences, and perceptions of the CEOs of Australian universities' quality management. It was decided to focus on their quality audit process insofar as it affected the libraries and to collect the information by means of a questionnaire.

CAUL SURVEY

This section will describe the survey, conducted by the authors, of all Australian university librarians of publicly funded universities. The survey sought information about the university librarian's role in the quality audit process, their personal training background in quality methodologies, quality initiatives in their libraries, the structures used to manage the quality process, the quality training background of their staff, their access to the quality funds used to reward universities by the quality audit process, and their attitudes toward both the process and quality in general.

The questionnaire was sent to the librarians of thirty-six public universities (the three private universities were not visited by DEET and therefore were not included in this survey). Of the thirty-six questionnaires dispatched, thirty were returned; however, the University of Western Sydney returned three questionnaires (two of which they had photocopied) because they have a multicampus university. If these additional photocopied questionnaires are included, then thirty-eight survey questionnaires were issued and thirty returned. Accordingly, the response rate was 78.9 percent. Most of the questionnaires were returned anonymously, and the information provided has been treated in confidence—any information which identified universities or libraries was deleted when comments from the questionnaires were transcribed.

Analysis of the Survey Results

The objective of the survey was to discover how deeply embedded libraries were in the university's quality initiatives, which was another way of asking what importance was placed upon libraries by their parent universities in regard to quality processes. The argument for this approach follows.

One of the principal accountabilities for Australian universities is their contribution to the achievement of society's goals. The educational processes, managed by universities in support of these goals, are heavily dependent upon information, and thus libraries become key critical success factors in the achievement of universities' strategic goals. While research has not yet established a direct causal link between use of libraries and achievement of academic excellence, nor even between the quality of universities and the achievement of a nation's socioeconomic goals, nevertheless, the belief in such a construct clearly drives much of the quality work in university and library management and seemed a reasonable starting point for this study.

The indicators of this potential causal relationship were defined for this project as:

- autonomy and interdependence;
- personal appearance before the panel;
- quality methodologies used within university libraries;

- allocation of quality funds;
- relationship between library and university quality unit;
- levels of training in quality management among university librarians; and
- general comments by university librarians on the quality audit.

AUTONOMY AND INTERDEPENDENCE

The authors wished to discover to what extent (given the growing awareness of the critical importance of the library in the achievement of university goals) the library had independence in formulating its own section of the quality portfolio and its influence on other sections.

All the university librarians surveyed had been involved in writing or drafting the library's section in their university's quality portfolio in either 1993 or 1994. Of the seven university librarians who were not involved in 1993, all became involved in drafting the 1994 reports, and one of the university librarians who drafted the report in 1993 went on to write the report autonomously in 1994. There was, therefore, considerable independence exercised by university librarians in the preparation of the library section of the portfolio.

Only nine of the university librarians were involved in writing the sections on other units in the portfolio. Of this number, five were involved in writing other sections for both years and four were involved only in 1994. At least two university librarians reported having significant input in drafting the university's technology plan. There is evidence that university librarians also participated in the drafting of other sections of the portfolios. One plausible explanation is that their universities directed each unit to draft its own section of the report and then circulated the draft sections for comment before the final editing of the report.

The responses were anonymous, but it is possible that the librarians' influence was exerted because of the convergence of library and computing facilities in some universities, or possibly that some university librarians have achieved positions of special influence. However, the majority of university librarians did not report exerting influence over other sections of the document. It is unclear whether this reflects an unwillingness on the part of university librarians to get involved outside the library, or a reluctance on the part of the university to recognize the general managerial expertise of the university librarian. Whatever the cause, it is clear that, in the first two quality audit rounds, university librarians were consulted principally about the library and exercised very little influence upon the reports of other critical information resources on campus.

Table 1. Summary of Question 3 Responses

Year	Specifically designated officer	University nominee	Both designated officer and university nominee	Total
1993	10	8	2	20
1994	14	8	3	25

PERSONAL APPEARANCE BEFORE THE PANEL

Another indicator of the university's perception of the importance of the library is a personal appearance by the university librarian before the Quality Audit Panel during its visit. The audit panels were given the freedom to decide whom they wished to see on the day of the audit. They asked for information from generic officials, named individuals, and representatives of groups while allowing universities some latitude in their nomination of individuals.

Of the thirty respondents, twenty university librarians appeared before the Quality Audit Panel in 1993, and in 1994 this number rose to twenty-five. However, the number of university librarians who appeared in either 1993 or 1994 was twenty-eight (93.33 percent). The number of university librarians who appeared and their status are described in Table 1.

It seems from these results that, while some university librarians were inexplicably not invited to the audit and while a similar number chose not to respond to this question, approximately half of the university librarians appeared before the panel. Of these, about half were invited by the panel by virtue of their office while the other half were nominated by their university.

It is tempting to read into this finding the levels of awareness within the panel community and the universities' perceptions of the importance of libraries. However, the responses were anonymous, and it is more likely that their appearances reflected the panel's priorities within different university contexts.

As the quality audit process unfolded and universities realized that sharing experiences did not put them necessarily at a competitive disadvantage, it became clear that this was an experiential learning process for the participants. The authors wanted to explore this somewhat and asked about the amount of preparation given. Twenty-five university librarians reported attending preparations ranging from "mock audits" (which one described as a "panel of interrogators") to briefing sessions or meetings which discussed probable questions and lines of inquiry, some of which proposed "points to make if given the opportunity."

QUALITY METHODOLOGIES USED WITHIN UNIVERSITY LIBRARIES

A possible assumption underlying the whole audit exercise may have been that universities lacked adequate quality assurance policies. How-

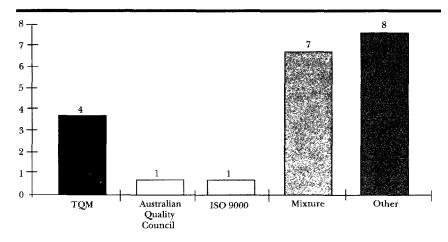


Figure 1. Frequency with which "yes" respondents to Question 5 used nominated quality methodologies

ever, the abiding interest of libraries in evaluation and user studies, the investment by CAUL in performance indicators, and the increasing number of university librarians with higher degrees and qualifications in management, suggested that this might not be true for libraries. Of the thirty respondents, eighteen reported having quality assurance programs operational in their libraries before the quality audit. Figure 1 shows the methodologies employed, which were primarily eclectic.

Most respondents reported that either they or their deputy or senior management group had personal responsibility for these processes. The purpose of the survey was not to evaluate the effectiveness of the processes, but the seniority of the leadership suggests that the fundamental rules of quality management had been implemented. Twenty-five respondents indicated that they had used quality initiatives independently of the quality audit, some as early as 1986.

ALLOCATION OF QUALITY FUNDS

The distribution of supplemental quality funds was intended to reward those universities exhibiting satisfactory quality assurance processes. However, since all universities received some money, the reward factor may be taken with a grain of salt. In attempting to discover if the university administrations took the same attitude, university librarians were asked about the portion of the funds which they received.

While twenty-three (76.67 percent) of the thirty respondents reported receiving funds, the seven who reported receiving none were a sufficiently large proportion of Australian universities to raise questions concerning the status of the library on some campuses. The present authors are not in a position to know which librarians did not receive quality funds. It is

possible that these campuses may have already funded their libraries generously. However, since the money was intended to improve quality assurance processes, it would have seemed reasonable to provide some impetus for their libraries to develop, or further develop, such processes.

The manner of disbursement was entirely at the discretion of the universities, and this naturally reflected their power structures and managerial styles. Curtin, for example, a highly devolved university but with a visible central power structure, divided the money into three categories:

- 1. Piloting Quality initiatives (up to \$10, 000 each)
- 2. Strengthening Quality processes
- 3. Infrastructure for Quality monitoring systems

Respondents were offered this information and asked to describe their own university's mechanism for allocating the funds. As was mentioned earlier, twenty-three respondents indicated that they had received some of this money. A large number of the respondents simply indicated that the departments had to apply for the funds or that the funds were distributed by the vice-chancellor, and no indication was provided regarding the categories under which the distribution was made. However, twelve indicated categories which corresponded reasonably closely to one of the Curtin categories. In addition, four respondents suggested a "teaching and learning" category, four indicated a "research" category, two used a "community service" category, and one had a "student initiatives" category. Of these, seven indicated that they received the funds automatically, and fifteen indicated that they had to apply for the funds.

The government's intention was to strengthen the quality assurance processes of the universities, and it would have been reasonable to expect that the money (at least in the case of the libraries) would have been spent on these processes rather than on inputs such as infrastructure. However, the bulk of the money appears to have been used to support the libraries' information technology programs by various purchases.

While it is not the purpose of this article to criticize the priorities of Australian university librarians, it has to be said that this expenditure is more likely to reflect their difficulty in getting adequate funding for the enablers of one dimension of the quality of their services in a period of rapid and profound technological development rather than a wholehearted investment in quality per se.

The accountability measures for the expenditure of this money appear to have been bureaucratically extensive if rudimentary in quality terms. By this is meant that the majority of respondents had to express their claim in terms of required performance levels and improvements in quality, but the expenditure of the money was accounted for more in terms of reports of expenditure than of commitments to the continuous improvements which such funds might have generated.

RELATIONSHIP BETWEEN LIBRARY AND UNIVERSITY QUALITY UNIT

Anecdotal evidence suggests that the quality audit did take Australian universities by surprise even though they were, in most cases, quick to respond. The authors wished to discover if the university had a central quality unit and what sort of relationship existed with their library. The assumption here was that, if such a unit existed, the library might well be in advance of the university in quality management practices. Of the thirty respondents, nineteen (63.33 percent) reported that their university had set up a central quality office, and only one of these did not liaise regularly with it.

LEVELS OF TRAINING IN QUALITY MANAGEMENT AMONG UNIVERSITY LIBRARIANS

The ability of the university library staff to respond to the challenge of measuring library quality depended, in large part, on their previous education and training. Seventeen respondents (56.67 percent) reported that they and/or their staff had engaged in special training in order to deal with the quality audit.

Such training is available from a number of sources in Australia as described earlier. Figures 2 and 3 show the distribution of participants across these providers. What is of great local importance here is the prominent role played by the ALIA (the professional accrediting body for librarians) and the AIMA. Noticeably, university librarians principally used AIMA while their staff used a mixture of both.

There was remarkably little participation in courses by the specialized and larger quality vendors, Australian Quality Council, Standards Australia, and the Mount Eliza Australian Management College, and remarkably little use of the Australian Institute of Management. This doubtless reflects, in part, the response by ALIA and AIMA in providing appropriate courses and, in part, perhaps a desire to attend programs designed specifically for librarians.

Preparedness at a more fundamental level appeared to be less prevalent. Very few respondents reported that they and/or their staff gained degrees or other qualifications which had assisted them in dealing with the quality audit. Three university librarians indicated that they held relevant qualifications (MBA or equivalent). Five reported that their staff held similar qualifications.

GENERAL COMMENTS BY UNIVERSITY LIBRARIANS ON THE QUALITY AUDIT

The audit was not popular on any level, but respondents were cautious in their criticisms. Although some found value in the exercises in that they "contributed to awareness for improvement in quality processes," the following statement summarizes the general feeling:

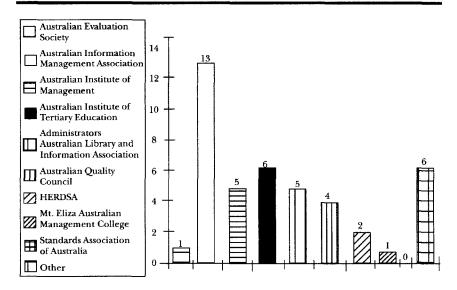


Figure 2. Sources of training for university librarians

It seems a very superficial process....A problem widely remarked about...is the way all institutions are assessed equally, regardless of their size and complexity. All are restricted to [a] 20 pp submission, all are visited for one day, etc. That might be fine for a small homogeneous institution but is quite inadequate for a large complex one. The larger and more complex the place, the more superficially its features are covered within these inflexible constraints.

INFERENCES

The Problems in Evaluation of University Libraries

The difficulties inherent in the evaluation of university libraries are well known. In Australia, the work of Buckland (notably Buckland, 1992) found wide acceptance within the university library community. As mentioned earlier, there appears to have been little application of the performance indicators' work done in other countries. The outcome of the CAUL effort is awaited with great interest. Although it will yield only three indicators, these will be a useful starting point along what is a notoriously difficult path. The nearest approach to a consistent national performance measurement system remains the AARL data. However, these are simply input/output measures and, although various basic indicators are published in AARL, libraries are left to their own ingenuity in manipulating these data.

It should be pointed out that academic libraries are in the same position in this regard as other sectors of the Australian library industry. Exon

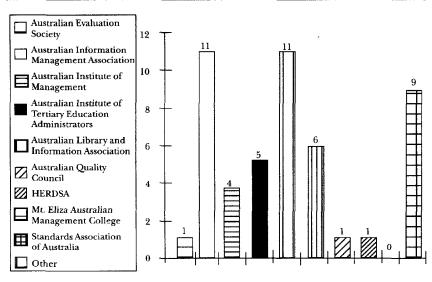


Figure 3. Sources of training other university library staff

and Ecclestone (1988) reviewed the nature and availability of statistical sources for all types of Australian libraries, while a national Think Tank on Library Statistics (Exon & Smith, 1991) noted the lack of data and the absence of plans or resources for filling the gap. Academic libraries are, in fact, better off than most other sectors, although, as has been said, the data are basic and often deficient.

The Relationship between the Effort Involved and the Potential Rewards

Universities (and their libraries) attempted, with varying levels of success, to understand and apply quality management concepts. The essence of the quality audit was to assess the effectiveness of the universities' quality assurance processes. The outcome affected funding and resulted in a public ranking. There are no hard data about the amount of collective effort that was required for DEET and the universities to engage in this process, although it is reasonable to suggest that it was significantly large. The reward was a very small percentage of the universities' recurrent budget, the percentage varying among the six bands. The allocation formula had unexpected results. A very large university which was ranked low might well receive, in cash terms, much more money than a smaller university ranked higher. It is hard to see how this can act as an incentive to improve performance. Furthermore, it quickly became obvious to several universities that the effort was out of step with the reward, and protests were made by vice chancellors of the so-called ivy league who indicated that they might withdraw as a group. Certainly the scale of the rewards is markedly insignificant when compared with the scale of rewards in the British system.

The moral reward (or punishment) was the publication of the quality score. This was expressed clearly as an evaluation of the effectiveness of the university's quality assurance processes but was immediately taken by the media (and the guides to universities) as a rating of the quality of the universities. This became a matter of considerable dispute with DEET, a dispute which was inflamed by the publication of a range of performance indicators for universities—a long brightly colored fold-out document which became known colloquially as the "Dulux sheet" (because of its similarity to the color swatches put out by a well-known manufacturer of house paints).

The ranks in the second round were changed from six to three, which brought the rankings close to most universities' comfort zones. However, there was still discomfort with the overall process, and it is likely that the 1995 round will be the last.

The Needs for Education and Training

Libraries were not given a great deal of prominence in the audit reports. This may reflect a general ignorance of the importance of libraries or an astuteness on the part of university librarians who know when to be reticent. They were certainly keenly sensitive to the usefulness of the supplemental quality funds and were successful in gaining access to them. It is not clear that these funds were allocated to quality assurance processes as such but were certainly allocated for enhancements of the conventional needs of academic libraries for acquisitions and for information technology funds, both of which are likely to enhance the quality of their services.

The university librarians, as a group, were well prepared academically for the quality assurance process. Several had qualifications in the subject and had staff with similar qualifications. There was considerable participation in training programs, and the university librarians themselves were involved. Many libraries had quality management processes in place, and it was heartening to see that no single library had an ideological monopoly in this. It was not possible to determine to what extent the libraries were ahead of or behind their universities in quality management. But the commitment to quality management within this sector is most heartening.

The Difficulties in Benchmarking

Benchmarking is described in the technical sense as "the search for industry best practices that lead to superior performance" (Camp, 1989, p. 12), although it is frequently used in the much looser sense of interinstitutional comparisons. The latter use is readily supported by the AARL

statistics, by the various input/output measures, and by the quantitative performance indicators which can be derived from them. There are, however, several barriers to these kinds of comparison.

The amalgamation of institutions of higher education advocated by John Dawkins has not smoothed the differences in size among universities. The range of differences in university libraries is also great. Having set out to reform the system, DEET has committed itself to the principle of diversity. This recognizes the substantial qualitative and culturally perceived differences which form the basis for the invisible (but powerful) ranking of Australian universities. Commonality of interest, whether it be the age and size of a collection (the "ivy league"), geographical proximity (the Unison cooperative in New South Wales), or similar foundation history (the Australian Technology Network), forms the basis for the many groupings of university libraries. For example, the Universities of Western Australia and Adelaide (some 2,500 kilometers apart) have negotiated a coordinated serials collections policy based on the use of telefacsimile technology.

But it is not obvious that university libraries are seriously benchmarking in either the colloquial or technical senses. In regard to the latter, it would be interesting to see a university library benchmark its reference desk against a high throughput bank or its circulation system against MacDonald's. Whether such conceptual leaps will be made, under the interaction between the university librarians' enhanced qualifications and the pressures to adopt continuous improvement managerial practices, remains to be seen. In the meantime, it seems likely that most university libraries are struggling with the turbulent and chaotic industrial and information technology environments.

Needs for Further Research

It must be a sine qua non that more information is needed about "library economy" to support effective library management. The CAUL PI Project is welcomed, but clearly more work is needed to develop additional performance indicators for the community.

The focus of all quality management is the client, but after many decades of research about the user, we are still no nearer to providing library managers with predictable models for satisfying user needs for information. We are left with the uneasy feeling that libraries are a source of last resort and that they now serve small proportions of our potential client market. Until we have fully grasped information technology opportunities, we will be left with either marketing our existing old-fashioned products or developing interventionist value-added human-delivered services. These latter services are inevitably experimental without the research results to support their design. Further research is needed into the process of the transformation of information. We also need more information about possible differences among the respective attitudes of librarians and their potential clients toward information accuracy, completeness, and timeliness of delivery.

Meanwhile, the huge capital investment in the information technology infrastructure and the ongoing costs of purchasing/licensing information access tools remain largely speculative ventures undertaken in response to a clear demand but with no knowledge of end-users' behavior beyond that permitted by the functionality of the system. Netscape, a World Wide Web reader, has seeped into the library system like an epidemic but still supports no indexing system that librarians would consider being even minimally acceptable. The task of imposing a standard of indexing is obviously too large. But clients can still be seen busily surfing away, clicking on their computers with obvious enthusiasm in almost every Australian university library.

Envoi

This article has sought to report the recent DEET quality audit of university libraries as an example of the role quality management processes play in Australian university libraries. This had to be done of necessity within the context of the reorganization of higher education. Since information about university library management practices is hard to come by in the public domain, a survey was conducted about university librarians' perceptions of, and participation in, the quality audit process and of their responses to it.

It is clear from this that the traditional service orientation of librarianship had enabled university librarians to adapt residually to the client-centered thinking of the quality movement. The survey shows a growing tendency for university librarians to have had training and education in quality management, and in many cases to be overtly or otherwise implementing such practices within their own libraries.

Although they are beset by a difficult and absorbingly turbulent external environment, they are responding to this environment in innovative and positive ways. There are many gaps and problems acting as barriers to a wholesale and comprehensive adoption of quality management processes; the outlook for Australian university libraries in this regard is optimistic.

GLOSSARY

Australian Academic and Research Libraries. Canberra (ACT), Australian AARL Library and Information Association, University College and Research Libraries Section, V1, no. 1-, 1970-.

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To obtain backsets of the AARL data, 1992-1993 is available on applica-

tion to CAVAL (qv), while 1989-1991 is available using ftp:

URL ftp://cc.curtin.edu.au/aarl/

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