

# Measure for measure: a post-modern critique of performance measurement in libraries and information services

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## **Measure for Measure A Post Modern Critique of Performance Measurement in Libraries and Information Services**

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### **INTRODUCTION**

How can you determine the best way of measuring your library's performance? Which measures are relevant for you? Measure for measure, which measures will make your organisation more effective and responsive, and relevant to your client's needs?

As a profession we have been grappling with this question for a quarter of a century. Responses have focused on the semantic, the practical, the theoretical and the dogmatic. But in recent years they have focused mainly on the practical. Recent articles describe and explore new ways of evaluating services, new services to be evaluated, new issues to be considered. Terms like TQM, ISO9000, Servqual and gap reduction are thrown around. What do they all mean? How do they relate to each other? Few writers have questioned the fundamental value and relevance of the process of measurement itself.

It is in fact a difficult question, because it is self referential. If we could answer yes, and simply get on with ascertaining the best ways in which to measure and evaluate what we do, that would imply that we know what an effective library is, and can measure it. We would therefore be finding it easier to define and adopt library performance measures, and they would be telling us yes, measuring performance leads to better performance and therefore more effective and relevant libraries. The fact we are here debating these issues suggests that we have not yet reached that point. In fact, the question we must ask is: are we really any closer to knowing whether performance measures lead to library effectiveness than when the debate began twenty-five to thirty years ago? This is the approach I have taken in this paper, and I hope that it will help you to find an approach to performance measurement which will help you manage your library better, and use measurement to enable you to deliver a better service.

I have taken what is essentially a post-modern approach, which analyses the 'discourse' of evaluation, and deconstructs the certainties of the past. By 'discourse' I mean the language, the definitions, the ways of expressing the concepts of evaluation that we have used. In other words, the measures we use tell us, presumably, what it is we value in libraries. So that in analysing the 'discourse' and examining the premises

on which we have built our notions of evaluation and measurement, we have an opportunity to re-examine those values. We are thus empowered to select and choose a system of performance measurement that suits the individual organisation and best reflects its fundamental purpose and its environment. Because, a library is a social construct, devised for a range of societal purposes and to meet a number of needs; library effectiveness is therefore dependent upon the insubstantial and fluid concept 'library', a concept which has become even more insubstantial in the age of the 'virtual library'. The attempt to discuss the notion of performance measurement in libraries is therefore both frustrated because of its complete dependence on such relativistic foundations, and necessary, because in the midst of such uncertainty we must attempt to create some meaning. The discourse of performance measurement is one way to establish that meaning.

### **Post-modernism and libraries**

A post-modern analysis finds that words, symbols, and signs are increasingly divorced from direct real-world experience. For example, the world of catalogues, call numbers, collection management and bibliographic control may have no meaning in the age of the 'virtual library' with its electronic journals delivered on demand, and its 'virtual collection' of electronic documents, stored in another continent and accessible on a "just-in-time", rather than a "just-in-case" basis. Post-modernism challenges the knowledge of the past by challenging the assumptions of the scientific rational method, and by rejecting the grand all-encompassing theory, such as, theories of universal bibliographic access and universal bibliographic control. Postmodernism, rather than seek to determine models which will serve for a universally recognised paradigm of 'library' focuses on local and transitory meanings, which serve for a time, and then are discarded when they no longer have relevance. It challenges definitions, and social constructs, and asks "what do we mean by 'a library'?" and "do you mean by 'library' what I mean by 'library'?" and if you don't then how can measures that determine the effectiveness of your library be of any value to me trying to measure the effectiveness of my library?

Ron Day would go so far as to say that library science as a discipline has been confounded from the outset by the fact that its very domain of study "information" is intricately linked with our concept of the nature of science, of the certainties of empiricism, and structure of recorded knowledge. (Day, 1996). Thus, the library, with its authority, structure and systems for organising knowledge might be seen as the scientific, modernist, certainty of the past. The Internet, by contrast can be viewed as a truly post-modern environment. In fact it has been described as 'the working model of post-modernism' as proposed by Lyotard (Hubbard, 1995: 448). Eschewing the certainties of print publication, the authority of peer-reviewed journals, and the certainties of empirical research, it mixes the scholarly and scientific with the egregiously spurious. Without the imposed orthodoxy of the world of scholarly publishing and libraries it reduces everything to everything to a common denominator in which the surfer is king, and meaning is imposed by structures outside its own boundaries- by the constructs we bring to it.. In this context we are forced to redefine the nature and purpose of libraries, and consequently the framework of evaluation and measurement we will bring to them.

The paper therefore addresses the central question of the relevance of measurement and evaluation in libraries and information services by :

- examining past and present approaches to performance measurement in libraries
- putting past and present practice into a conceptual framework
- defining effectiveness as a multi-dimensional construct
- identifying the factors necessary for the effective application of performance measurement in library and information services

## **PAST AND PRESENT APPROACHES TO PERFORMANCE MEASUREMENT**

### **Origins of measurement in libraries**

Performance measurement or evaluation has historically been used by library and information services in two ways. From the Great Library at Alexandria up until the present day, libraries have judged themselves and each other in terms of their collections and their curators. The pride taken in the early years of this century in the size and quality of the collection, often focused on the number of rare and valuable items it contained, and the distinction of the staff as scholars and luminaries in their own right, has dominated much library history. This view was challenged by the documentalists of the nineteen thirties and forties, applying the mathematics of stochastic processes to the circulation of books and information in library systems. They began to shift the focus from the collection to the processes going on within the collection and the interaction between the collection and its users. The science of bibliometrics and the understanding it brought of the library as part of the cycle of the creation, organisation and dissemination of knowledge, changed the concept of the library as a self-contained entity to a dynamic system in constant interaction with its environment.

As this understanding developed, and as the library became a more sophisticated operation, standing apart from the community of scholars or readers which it served, it became recognised as a social institution rather than a collection of materials. Principles of management, and principles of evaluation developing in the management literature, were now perceived to be applicable to libraries. Performance measurement in library and information services has since kept pace with the range of methodologies used in the profit, and not-for-profit sectors—Strategic Planning, Systems Analysis, Management Information Systems, MBO, TQM, BPR, ISO9000 and its off-shoots, and the Baldrige Award. We have flirted them all and engaged seriously with some.

More recent developments reflect the role of government, and the impact of developing principles of 'accountability' in government on libraries, a large proportion of which are owned by national, state, or local government or government agencies. The New Zealand government, for example, currently declares its social and financial goals as Key Result Areas, and Strategic Result Areas and reports annually on the extent to which these are achieved. It has become an international leader in the development of methodologies for measuring the effectiveness of government, and on ways to define the services it purchases on behalf of the community from provider agencies, such as universities and libraries. (Boston, 1996). We will need to see where such developments fit into our analysis.

What does emerge from these various approaches to measurement and evaluation are a set of fundamental premises about measurement. The methodology is of less significance than the fact that some organisational endeavour is given over to the measurement of performance. Two key principles then can be seen to be:

- that the organisation seeks feedback on the impact of its main endeavours, i.e. that the feedback loop is closed
- that the measurement of performance is tied to decision-making and resource allocation.

Within these parameters there is a large element of choice, and an organisation may focus its measurement on a range of activities.

But this still begs the question: What is effectiveness? How do we measure it? If we do, do things improve? The debate in our profession, I would suggest, has focused too much on semantics and process, and too little on outcomes. The questions we should therefore be asking are:

- what performance measures are libraries and information services using?
- what are these measures actually measuring ?
- can libraries and information services demonstrate changes and improvements in procedure and resource allocation as a result of using these measures?

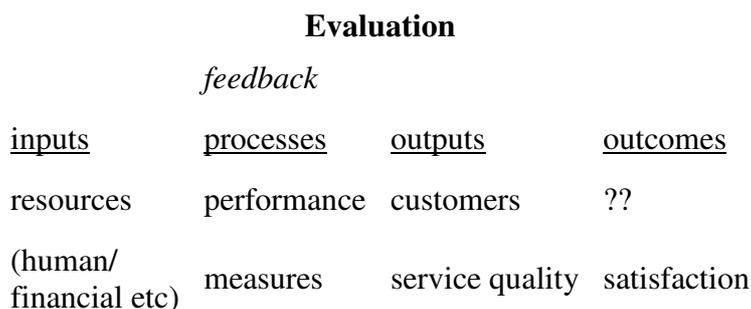
### **Landmarks of the past**

One way of answering these fundamental questions may lie in a more clearly defined conceptual framework for the process of output measurement, the measurement of outcomes, and the evaluation of services.

In order to develop such a framework we need to go back to some of the landmarks of the past 30 years, 30 years of an extensive literature to which we have already briefly referred. Here are some notable pieces of work, glimmerings of real knowledge in the research literature, in monographs, in conference proceedings, in handbooks and manuals - a "massif" with some named peaks - research, methods, and insights, which have added to the debate, changed its direction, made some significant impact on thinking about the issue. (See Appendix). This is not by any means a definitive list, even of the acknowledged seminal papers, or 'landmarks'. It is used simply to point out some trends. But most names of note are included, especially those of Kant or, and Orr, two key figures who made significant conceptual breakthroughs that are only beginning to be fully explored. And some are briefly mentioned who are far more prolific than this list suggests, especially major figures such as Buckland and McClure.

Of note in this list is a progression from the early documentalists, using statistical methods to analyse patterns of use in library collections, developing concepts of measurement, early applications of the 'systems' approach, identification of need for 'objective' measures, linkage of planning (and goals and objectives) with measurement, the concept of 'goodness' and whether statistics can measure goodness or not, the emergence of 'effectiveness', MIS and DSS, and finally the introduction of concepts of quality, ISO9000, the distinction between satisfaction and service quality, and the definition of the attributes of service quality.

During this period (the past 25-30 years) we have learned a lot about library performance and measurement. We have learned to distinguish between inputs and outputs, to understand the difference between measuring processes, and measuring products. We learned about the need for feedback. We have learned also that outputs may not equate with outcomes, and that to find out how well we are doing we really need to determine what impact library and information services have on the immediate community we work in and on society at large. And then we learned that these outcomes are more difficult concepts to measure than inputs or outputs or even processes. They are fuzzy, contradictory and often unquantifiable. Our state of knowledge might be simply expressed thus:



**Figure 1. The three aspects of evaluation**

## A CONCEPTUAL FRAMEWORK FOR EVALUATION

### A typology of the performance literature

A more sophisticated typology which has been used in our discipline provides some insights into why there is such a range of evaluative methodologies, and how they relate to each other. Advantages and disadvantages of each can then be assessed and choices made as to which method is the more appropriate.

This typology, as it is used in Library and Information Science, and other educational and quasi-governmental industries is generally attributed to Kim Cameron. Although it is usefully applied to the not-for-profit sector, since it provides other ways than profit for measuring organisational effectiveness, it originated in the for-profit sector and is found in a number of management textbooks, with various attributions. It was used by Van House and Childers (and subsequently by Calvert and Cullen) in a series of studies which now amount to a substantial body of replicable research on dimensions of library effectiveness.

In Cameron's typology (Cameron, 1986) there are four models which describe the ways in which organisations tend to measure their 'effectiveness'. They are referred to as:

- the goal attainment model
- the systems resource (or external systems) model
- the internal processes, or internal systems model
- the multiple constituency, or constituency satisfaction model.

In the **goal attainment model** the organisation assesses its effectiveness in terms of the extent to which it achieves its goals and objectives. These may be focused on acquiring resources from the environment, increasing outputs, or establishing new services. Reporting and measurement, and resource allocation are concentrated on the extent to which these goals are achieved. Goals may also be focused on achieving pre-determined standards or bench-marks. Heavy reliance on output measures usually indicate that much of the organisation's endeavours are focused on increasing outputs, and therefore on goal achievement.

In the **systems resource (or external systems) model** the organisation measures its effectiveness in terms of its ability to gain resources from its environment. These are input measures. Traditionally, as we observed above, libraries have concentrated on, have measured themselves and reported in terms of: the size of the budget, number of staff, number of qualified staff, staff publications, the size of the collection, strengths of the collections, etc.. Successful libraries have been considered to be those which secured more extensive resources from the environment, and translated them into these ostensibly desirable inputs. Library statistics, and benchmarks of minimum staffing levels for a particular population, building standards and area per capita for users, staff qualifications, collection size etc., reflect this model.

In the **internal processes, or internal systems model**, the emphasis is on the organisation's internal communications systems, and the efficiency with which it converts inputs into outputs. A feedback loop is an important component of this model. Measures which report ratios of transactions per staff member, number of items added to stock per staff member, and early work on the use of library statistics for decision-making focus on this model. TQM and the use of the quality standards (ISO 9000/9001, etc.) , because the focus is as much on internal as external transactions, can also be identified with this model.

In the **multiple constituency, or constituency satisfaction model**, the organisation looks outward to its different constituencies or stakeholder groups and measures its effectiveness in terms of the extent to which the needs of these different constituencies are met. The competing demands of these various groups must then be managed. Goals and objectives, and all other ways of measuring performance are constrained by the need to demonstrate to the more powerful constituencies the extent to which their desires are met. This is essentially a marketing model, and one that recognises the need for marketing to the internal as well as the external customer.

Organisational effectiveness can therefore be seen to be a mental construct of many dimensions. Although organisations may not identify or articulate the model they have chosen, their choice can be inferred from their behaviour. Organisations may of course employ one or more of these models, in that the measures they select for use, or the way in which they report reflect more than one of the models outlined. The corollary is that as some of these models are mutually contradictory, effectiveness measured according to the dimensions of one model may not be compatible with effectiveness as measured according to the dimensions of another.

We can now map the range of methods of performance measurement used in the examples in our 'landscape' onto this typology. It would be preferable at this stage not to use terms like 'measurement' and 'effectiveness' because these are semantically

compromised by their previous usage. The term 'evaluation' is used for the typology, because it is sufficiently broad to encompass all the models that have been used. Figure 2 represents an initial and tentative mapping. It is not our final model.

<b>Evaluation</b>	
Goal attainment model:	goals and objectives bench-marks standards output measures citizen's charter
Systems resource model:	Input measures library statistics bench-marks standards
Internal systems model:	Management Information Systems Decision Support Systems TQM- Total Quality Management ISO9000/9001 etc.
Multiple constituencies model:	Service quality Customer satisfaction Total Quality Management ISO9000/9001 etc. gap reduction marketing

**Figure 2. Systems of evaluation used in LIS mapped on to Cameron's typology**

There are some caveats relating to the use of this typology which must be mentioned here. The four models do not deal very adequately with the notion of outcomes (or impacts) , as distinguished from outputs. This is problematic for me in that the notion of outcomes has dominated much of the New Zealand government' s thinking in the past decade - a cost/benefit approach, or an attempt to measure the benefits of social service agencies in terms of social outcomes that is still in its infancy. Although if the government could precisely define the social benefits it desired, and was willing to fund these, it is possible that ways could be identified to deliver and measure them.

Cameron's typology also does not deal well with the concept of leadership, which I will argue may be essential to the implementation, if not the conceptualisation of measurement. It should also be noted that there are some recent evaluative paradigms which straddle a number of the models here, and which bring a more sophisticated multi-focused approach to performance measurement, being both internally and externally focused. The Baldrige Award and its framework of criteria would be one such. It does not yet appear to have been adopted by any libraries or information services.

As we move towards building a new conceptual framework that will accommodate the various endeavours of measurement of the past, and the Cameron typology, it is

salutary to look one other model. Herson and Altman, in *Service Quality in Libraries* (Herson, 1996) distinguish 5 dimensions of evaluation: extensiveness, effectiveness, efficiency, costing, and quality. These can also be mapped on to the four models of effectiveness that we have already looked at:

<u>Dimensions of evaluation</u>	<u>Fit with "Models of effectiveness"</u>
Extensiveness ----- >	Internal processes External systems Goal attainment
Effectiveness ----- >	Goal attainment
Efficiency ----- >	Internal processes
Costing ----- >	Internal processes External processes
Quality ----- >	Multiple constituencies

**Figure 3. Cameron's typology mapped onto Herson and Altman's model of evaluation**

In this paradigm, extensiveness, e.g. the 'extent' or 'amount' of inputs, of users, of time taken to process materials, or of services provided, is a quantitative not a qualitative measure. It relates to both the internal processes, or systems model, and to the external resources model, since it covers both the efficiency with which an organisation can convert inputs (staff, funding etc.) into outputs (reference enquiries dealt with, etc.) , and it also measures the organisation's ability to secure more such resources from the environment. If an organisation chooses to focus its planning activities on measurable objectives , it will be focusing its evaluation around the 'extensiveness' dimensions, rather than choosing to focus on other dimensions.

Herson and Altman focus on quality - the extent to which an organisation meets the needs of its primary customers as defined by a range of service attributes - as the most significant dimension of evaluation to which libraries should currently direct their energies. However, the Herson/Altman typology, like Cameron's, reveals that an evaluative methodology which reflects only one dimension will ignore many other dimensions of effectiveness, or evaluation, which must be taken into account to give a true picture of how a library or any other service organisation is performing. This 'fore-shortened', uni-dimensional view may be a factor in the reluctance of libraries to whole-heartedly endorse measures proposed to date. An instinctive desire for a more 'holistic' approach to measurement that captures something closer to a truer picture of that complex social construct, the library.

**A proposed new model of organisational effectiveness: a Focus/value/purpose matrix** The real value of Cameron's work, and that of Van House and Childers, is to demonstrate the multi-dimensional nature of performance measurement. Studies carried out by Childers and Van House investigating dimensions of effectiveness in public libraries, further explored by Calvert and Cullen in public and academic libraries, and by McDonald and Micikas in university and college libraries, all tend to produce the same broad range of results—that library performance can be shown to have a range of about 12 dimensions, covering management procedures, technical

processes, physical plant, information/customer services etc. each of which is important to the whole picture, and each of which fits within one or other of the models of effectiveness outlined by Cameron <sup>1</sup>.

The four models, however, can also be seen as an expression of a number of different poles or axes. One dimension, representing a set of organisational attributes (such as 'customer focused', 'client-centred' <sup>2</sup>, or conversely 'unresponsive') is clearly the internal/external focus of the organisation. This axis is an expression of the degree to which the organisation focuses on and interacts with its environment. An organisation with an internal focus will look at its internal processes, and measure its efficiency in converting inputs to outputs, but will pay less attention to defining these and to their relevance to its ultimate purpose.

This, then, is our first axis.



**Diagram 1**

A second axis reflects the value system of the organisation. The attributes on this axis reflect the extent to which the organisation places value on its inputs (i.e. its size, and the extent of the resources it attracts), or its outputs (the services it provides) to a range of customers. Despite our profession's focus on the measurement of outputs for the past fifteen years, many organisations continue to report inputs and clearly place great store by them. Even organisations striving to be more customer focused are still reporting and valuing inputs, suggesting that these two axes measure different sets of organisational attributes.

**Diagram 2**

However, organisations with a strong sense of their value in terms of outputs, and a strong external focus are likely to be highly sensitive to political issues in the environment, and to favour models of effectiveness which reflect their multiple constituencies. They are likely to adopt a marketing model.

We commented earlier on some organisational attributes that the Cameron models deal with less effectively. These are attributes such as purpose and leadership. We can add a third axis therefore which measures the extent of the organisation's resolution. Resolution is here defined as that aspect of organisational culture which reflects organisational unity, a sense of common purpose and movement towards that purpose. It is also a measure of the strength of leadership within the organisation, leadership that encourages change, and that shifts resources to defined goals. Organisations weak in resolution will tend to maintain the status quo and resist change. Their performance measurement is likely to be focused on existing activities and outputs. Feedback loops may exist but the information they provide will not be the major input in decision-making and resource allocation. Strong leadership, and a change in organisational

culture is needed to re-orientate such an organisation to new goals. A third axis, relating to the strength of organisational purpose, is therefore added to our matrix which now represents a tri-axial figure which may be labelled a Values/focus/purpose matrix. This third axis is critical to the successful implementation of performance measurement.

### **Diagram 3**

The distinction between the three axes is important. An organisation which is strong on resolve and has strong leadership might still not have a very strong customer focus. It might focus on its inputs, its collections, its buildings and on gaining yet more resources of this kind, while neglecting to examine and increase its outputs. Conversely, an organisation with a strong customer focus may fail to pay attention to, and fail to succeed in gaining the resources which will enable it to meet its customers' needs. A third organisation might value its outputs, report on all its transactions, e.g. circulation statistics, reference enquiries, interloans, on-line searches, etc. and set goals to increase these each year, and yet have little notion of whether these transactions are meeting the needs of its primary client groups, or indeed have defined its primary clients or customers.

Where an organisation sits on each of these axes is as much a matter of choice as a function of its history and organisational culture. But while some libraries are reinventing themselves, and refocusing energy on a range of service outputs, others seem almost to be trapped by their own histories. It is in the end a matter of choice. And for an organisation which wishes to shift where it sits on the axes representing values and focus, the axis representing purpose becomes critical.

Like the typology employed by Cameron, the Values/focus/purpose matrix helps us see the relationship between various systems of performance measurement and devaluation. It emphasises the complex and multi-dimensional nature of organisational effectiveness, and therefore of the task of performance measurement. But the Values/focus/purpose matrix demonstrates even more clearly than the Cameron typology the element of choice and purpose that is fundamental to performance measurement. Every organisation can reposition itself on each of the three axes as it determines its relationship with its environment, its focus and its values.

## **FACTORS AFFECTING THE USE OF SYSTEMS OF EVALUATION**

### **Do libraries make use of past research?**

Turning now to the fourth avenue by which we set out to address the question of whether performance measurement improves library effectiveness, i.e., by examining the factors that might improve or hinder the adoption of performance measurement in library and information service management, one question immediately arises. In all the literature that we have been discussing here there have been considerable insights into measurement and its value to libraries. Why has there not been greater uptake of this scholarship and research? Why is there so little agreement amongst the profession

at large of the best approach to take to this problem, when library services are in so many other ways are becoming more and more standardised?

There has, in fact, been some uptake of researched-based management methodology within our profession in the past. From the first ALA manual (De Prospro, 1973) through to the last (Van House, 1987) the methodologies have been well based on previous investigation and research, even if this was not entirely empirically based. Those libraries that have employed these or related methodologies report detectable increases in a range of output areas (Stephens, 1995) and some satisfaction with evaluation as an activity. But total commitment in the profession to the task seems to be still falling far short of what we might expect after such a lengthy gestation. In most institutions, it seems, measurement is still not feeding into the planning process; many libraries have little understanding of the measurement process, pay little heed to research, and few are able to document improved outcomes from their evaluation.

Compared with other disciplines, it could be said, we do not make enough use of research to improve services or practice. A revealing comparison might be made with medicine. Despite political issues surrounding the delivery of medical care medicine is a highly professional discipline that uses its research and its literature to inform practice—there is a lot at stake, and the health professionals can't afford not to use the best information available.

What is different about library service, and about information services generally? Do we see the same uptake of information from research? the same focus on improvement? the same awareness of the risks of inaction? If we go back to the 'peaks' in our landscape, and pick out some of the notable research and the breakthroughs of the past that could have changed professional practice, we have to ask to what extent have they changed anything? What impact has the work of Orr? of Kantor? of Altman? or Van House and Childers had? Well, obviously we do see changes, and we do see improvements. The academic library of today is more sophisticated, and offers more services than 25-30 years ago, when the first investigations to which this paper refers were conducted. Two notable changes have been in the area of reference services and Information Technology (one we can take credit for, the other possibly not). But are these the result of utilisation of research, a conscious attempt to use data and feedback to improve services? It seems that many of our improvements are ad hoc, rather than empirically based; they are reactive, i.e. responding to changes in the environment, or they originate with vendors driven by the need to get a competitive advantage, rather than being proactive, and led by the profession itself.

Why? There are two possible reasons:

1. The incentives aren't strong enough - information management and services are rarely matters of life and death; they don't have to make a profit, satisfy shareholders, and until recently rarely had to prove their value.
2. In attempting to measure library/information service performance we are dealing with some very imprecise outcomes/impacts - it is not always clear what is the 'best book' especially for a particular client, the 'best information' or even the most up-to-date - no research will tell us this. The outcomes we talked of earlier, the social impacts, have not yet been defined adequately.

Only in the business environment has there been any attempt to define the cost/benefit of the information service to the organisation. Our profession involves a complex area of human behaviour, we are uncertain of the benefits, and unlike medicine, we can't measure the value of our work - or the negative impact if it is done badly.

In sum, as a profession, we have not embraced performance measurement in the decisive way that we have adopted technology. Clearer benefits might provide clearer incentives, and the combination of inadequate incentives, and fuzzy outcomes has led to a level of uncertainty and indecisiveness in action. But it is the first that interests me most for the time being, the question of incentives.

## CONCLUSIONS

There would seem to be three critical factors influencing the positive outcome of performance measures in libraries. The three factors are inter-related, and form a useful framework for a final discussion of the issues.

### **1. Measurement is a political activity**

Performance measurement is a highly political activity, and must be seen as such, at the macro and the micro level. We must look outwards to social and political expectations made of our institutions and ensure that they meet the needs and expectations of our significant client or stakeholder groups; we must use our planning and goal-setting activities in a meaningful way, incorporating appropriate measures, to demonstrate our response to this external environment, and our willingness to align our aspirations to broader corporate goals. But we must also look within and seek to promote an organisational culture which acknowledges the political nature of measurement. This means using performance measurement to:

- indicate the library or information service's alignment with broader organisational goals,
- demonstrate the integration of information services with the key activities of the organisation, or of the community
- support the library's position as the organisation's primary information manager and service providers.

Returning to the Values/focus/purpose matrix a library or information service wishing to define itself in this way will be careful to direct its energies and its performance measurement towards the outputs end of the values axis, choose an external orientation and develop a strong sense of purpose.

### **2. The Multidimensional nature of performance measurement**

The application of Cameron's four models to existing modes of measurement and the Values/focus/purpose matrix have demonstrated that performance measurement is fundamentally multidimensional in nature. A library or information service that wishes to really understand how it is performing will examine both its environment and its constituencies, investigate the needs and expectations of its constituencies, examine its inputs and effectiveness in gaining resources, set goals which will allocate resources to respond to its various constituencies, measure efficiency and effectiveness in using resources, incorporate feedback into planning, revise goals in

dialogue with various constituencies identified. You might describe this as the old systems model. It is far more than that. All four models outlined by Cameron must all be reflected in the evaluative procedures employed by the institution. It must recognise where it sits and consciously position itself on each one of the axes of the Values/focus/purpose matrix.

### **3. Rewards and incentives**

Finally, we will not see informed and effective performance measurement in libraries until we can have got the right incentives in place. Again, these are both external and internal - they include the incentives and demands made by governments, local bodies, funding agencies, and parent organisations to provide evidence that the organisation is setting appropriate goals, meeting the expectations of a variety of stakeholders, and efficient in its conversion of inputs to outputs. And they include the incentives offered internally to reward good performance that is in line with organisation's objectives. In too many of our institutions poor performance is inadvertently rewarded, and good performance goes unacknowledged. An organisational culture is ideally attuned to the organisation's purposes, and reflects the resolve of the organisation in whichever direction that takes it is. Again the organisation must consciously place itself as an organisation of strong resolve on the purpose axis of the Values/focus/purpose matrix.

### **The question repute: a post-modern analysis**

We began this discussion by observing that the concept of 'library' and therefore the concept of 'library effectiveness' is a social construct which allows us to impose a discourse with which to define and discuss the concept. And it was suggested that the question of whether performance measurement improves library effectiveness is essentially unanswerable, because it is self-referential. But perhaps in this exploration of past and present approaches to measurement, and in the two multi-dimensional conceptual frameworks we used to define the problem, we can find an answer of sorts. Because this exploration has shown that since a library is a social construct, and performance measurement is a consequent social construct, we are then free to both explore the definition of 'library' being imposed by any one system of measurement, and to choose which definition of 'library' to employ. That is we can adopt a system of measurement which best serves our definition and our purpose. The numerous dimensions of performance measurement encompass a range of methodologies and paradigms. Each has its own perspective on what a library is about to bring to the task. Each has its own internal principles, and imposes its own discourse.

Libraries, and other organisations for that matter, in choosing between these various paradigms, are able to determine their placement on the three axes of the Values/focus/purpose matrix, are free to do so and must choose where and how to do so. There are no absolutes, no gurus to follow, no guarantees. Should they choose to focus their energies and their measurement on improved organisational effectiveness then that is likely to be the outcome.

We have known all this for the past decade. As Chuck McClure said in his 1986 'Report from the trenches' what is needed are reliable methodologies, but even more so the professional leadership and organisational development. to make measurement an effective tool for libraries( McClure, 1986). A decade later we are still looking for new paradigms, testing new methodologies when they are already there. Performance

measurement is an essential management tool, that may be implemented in a variety of ways. Each brings some desirable outcomes and comes with some disadvantages. Understanding the nature of each paradigm, and the underlying concept of the organisation which it implies, will help us make more effective choices from this range of methods. With this understanding, and with the leadership and organisational resolve to use measurement as a tool to increase organisational effectiveness, the possibilities are endless.

The question may be self-referential. The answer I have outlined will, I hope, help you identify relevant and meaningful measures for your own library/information services.

## Notes

<sup>1</sup> A second important characteristic of this research, again demonstrated by Van House and Childers, and Cullen and Calvert, is the potential to select with confidence a single measure from each dimension as a "surrogate" for other measures in the same dimension. This means that parsimonious measures to be selected which still covers all dimensions of library activity and evaluation (Cullen and Calvert, 1996).

<sup>2</sup> Of course many organisations may continue to be unresponsive to client needs whilst claiming to be client-centered. In such a case 'client-centered' remains an aspiration not an attribute.

## References

1. Altman, E et al. (1976) *Adapted gathering and instructional manual for performance measures in public libraries*. Chicago: Celadon Press.
2. Boston, J (1996) et al. *Public management: the New Zealand model*. New York: Oxford University Press.
3. Cameron, K. (1978) 'Measuring organizational effectiveness in institutions of higher education' *Administrative Science Quarterly* 23 604-29.
4. Cameron, K. (1986) 'A study of organizational effectiveness and its predictors' *Management Science* 32 87-112.
5. Calvert, Philip J., & Cullen, Rowena J. (1994) 'Further dimensions of public library effectiveness II: The second stage of the New Zealand study' *Library & Information Science Research*, 16 87-104.
6. Childers, Thomas, & Van House, Nancy A. (1989). 'Dimensions of public library effectiveness' *Library & Information Science research*, 11, 273-301.
7. Cullen, Rowena J., & Calvert, Philip J. (1993). 'Further dimensions of public library effectiveness: report of a parallel New Zealand study' *Library & Information Science Research*, 15, 143-164.
8. Cullen, R. and Calvert P. (1995) 'Stakeholder perceptions of academic library effectiveness' *Journal of Academic Libraries* 21(6) , 438-448
9. Cullen, Rowena and Philip Calvert. 'New Zealand University Libraries Effectiveness Project: dimensions and concepts of organizational effectiveness' *Library and Information Science Research* 18(2) 1996 99-119.
10. Day, Ron. (1996) 'LIS, method, and postmodern science. *Journal of Education for Library and Information Science* 3 (Fall) : 317-324.
11. De Prosopo, E, Altman, E and Beasley (1973) . *Performance measures for public libraries* Chicago: American Library Association

12. Herson, P and Altman, E. (1996) Service quality in academic libraries  
Norwood, N.J.: Ablex
13. Hubard , Taylor E. (1995) 'Bibliographic instruction and postmodern pedagogy' *Library Trends* 44(2), 439-52.
14. Kantor, P (1984) Objective performance measures for academic and research libraries. Washington, D.C.: Association of Research Libraries.
15. McClure , C (1986). 'A view from the trenches: costing and performance measures for academic library public services' *College & Research Libraries* July 323-336.
16. McDonald, Joseph A., & Micikas, Lynda Basney. (1994). *Academic libraries: The dimensions of their effectiveness*. Westport, CT: Greenwood Press.
17. Orr, R. H. (1973). Measuring the goodness of library services: A general framework for considering quantitative measures. *Journal of Documentation* 29 319-332.
18. Pratt, A and Altman, E. (1997) 'Live by the numbers, die by the numbers' *Library Journal* April 15. 48-49.
19. Stephens, A. K. (1995) *Assessing the public library planning process*  
Norwood, N.J.: Ablex
20. Van House, Nancy A., & Childers, Thomas. (1990). Dimensions of public library effectiveness II: Library performance. *Library & Information Science Research*, 12, 131-153.
21. Van House, N.A. et al.(1987) *Output measures for public libraries: a manual of standardized procedures*. 2d ed. Chicago: American Library Association

## **MEASURE FOR MEASURE**

### **APPENDIX**

#### **1945 - 1960**

1948. Bradford. *Documentation*

#### **1961 - 1970**

1965. Clapp and Jordan. Quantitative criteria for adequacy of academic library collections

1967. Trueswell. Some behavioral patterns of library users: the 80/20rule

1968. Pizer and Cain. Objective tests of library performance

1968. Morse. Library effectiveness

1969. Fussler and Simon. Patterns in the use of books in large research libraries

1970. Hayes and Becker. *Handbook of data processing for libraries*

1970. Buckland. *Systems analysis of a university library*

#### **1971 - 1980**

1972. Hamburg, Clelland, Bommer. Library planning and decision-making systems

1973. De Prosopo, Altman, & Beasley. Performance measures for public libraries

1973. Orr. Measuring the goodness of library service: a general framework for considering quantitative measures

1975. Childers. *Statistics that describe libraries and library services*

1976. Altman et al. *A data gathering and instructional manual for performance*

measures in public libraries

1976. Kantor. Availability analysis

1977. Lancaster. The measurement and evaluation of library services

1978. Chen. Quantitative measurement and dynamic library service

1979. Du Mont and Du Mont. Measuring library effectiveness

1979. Kent. The use of library materials ( the Pittsburgh study)

1980. Palmour, Bellasai, DeWath. A planning process for public libraries

1980. McClure. Information for academic library decision making

1980. ALA pre-conference. Library effectiveness

### **1981 - 1990**

1982. Zweizig and Rodger. Output measures for public libraries

1982. Bommer and Chorba. Decision-making for library management

1982. McClure. Planning for library services

1982. Du Mont. A goal typology for library effectiveness

1984. Kantor. Objective performance measures for academic and research libraries

1986. Brophy. Management information and decision support systems in libraries

1986. Hernon and McClure. Microcomputers for library decision making

1987. Van House, Lynch, McClure, Zweizig, Rodger. Output measures for public libraries. 2nd ed.

1987. Harris. Management information systems in libraries and information services

1987. McClure. Planning and role-setting for public libraries

1990. King Research. Keys to success

1990. Van House and Childers . Public library effectiveness study

1990. Hernon and McClure. Evaluation and library decision making

### **1991 -**

[1992. Cullen . Bottom up from down under: management information in your automated library system]

1992. Performance indicators for university libraries (SCONUL)

[1993. Cullen and Calvert. Further dimensions of public library effectiveness: a parallel New Zealand study]

1993. Ellis and Norton. Implementing BS5750/ISO9000 in libraries

1995. The Effective Academic library: a framework . . .

[1996. Cullen and Calvert. Stakeholder perceptions of academic library effectiveness]

1996. Poll and Boerkhorst. Measuring quality: international guidelines for performance measurement in academic libraries

1996. Hernon and Altman. Service quality in academic libraries

1996. Brophy and Couling. Quality management for information and library managers