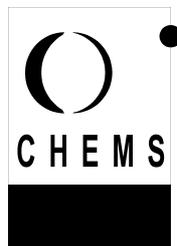


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# Benchmarking in Higher Education: An International Review

1998



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## EXECUTIVE SUMMARY

This monograph reviews developments in the application of the concept of benchmarking within higher education, with particular reference to the United Kingdom, Europe, Australia, and North America. The operation of international benchmarking 'Club' organised by the Commonwealth Higher Education Management Service (CHEMS) is also described. Rising as it does from other initiatives concerning both the enhancement and assurance of quality and the drive to increase the effectiveness of university management, benchmarking is directly relevant to current UNESCO concerns as described in its policy paper 'Change and Development in Higher Education (1995).

In an overview of the concept of benchmarking, Chapters 1 and 2 identify the origins of benchmarking where the main reason for its growth and popularity in the private sector have included: meeting the requirements for increased effectiveness caused by greater international competitiveness; the development of an interest in enhancing quality and the consequent growth of the quality 'movement'; and the rapid growth of information technology which has made sophisticated data collection and management possible. Such development within the commercial sector have been quickly followed by similar initiatives within the public sector in many countries, and a growing literature is now available on total quality management (TQM) and benchmarking within non-profit organisations. Inevitable higher education has also expressed interest, although currently more in the application of TQM than in benchmarking, and as is evident from Chapter 3 to date most effort appears to have been applied in the United States, although there is now considerable interest in Australia.

However, the application of benchmarking is not without both conceptual and practical difficulties, and Chapter 2 highlights major difficulties with nomenclature, both in terms of the managerial language in which much of benchmarking is couched, and also in the way that the specific term 'benchmarking' is defined which tends to conflict with the everyday use of the word within institutions. The monograph identifies a wide range of approaches which fall within the practice of benchmarking, and an attempt is made in Chapter 2 to construct a two dimensional matrix which enables different forms of benchmarking to be identified for comparative purposes. The use of such a framework may help to reduce the problems caused by terminological and conceptual confusion.

Chapters 3 to 6 indicate that a significant amount of interest is currently being demonstrated in the higher education systems reviewed, and particularly in the USA and Australia a number of major benchmarking projects are in progress. Nonetheless, the authors of these Chapters express reservations about the extent to which some of these initiatives fail to extend beyond the use of quantitative statistics and performance indicators, and do not focus fully in an exploration of process which is at the heart of most conceptions of benchmarking.

In Chapter 7 the pioneering activity of the Commonwealth University Management Benchmarking Club is described, and this involves universities from six countries working collaboratively. Considerable success is reported in achieving inter-university comparison of various management processes, although among the emerging issues are: the difficulties of achieving unanimity from institutions about the scale of effort required; the sensitivities associated with scoring and assessing in a university context; the problems of language; and the need for contextual indicators when using quantitative comparisons. Such findings support the more general implementation issues identified in Chapter 2.

Despite the reported difficulties of benchmarking, interest in it is likely to grow significantly as more universities become aware of its potential. Indeed, the methodology of benchmarking with its conceptual emphasis on openness of analysis, organisational learning, and an examination of processes rather than narrow focus on input or output data, has encouraged some commentators to be optimistic about its application in universities, arguing that such a methodology fits a university culture more comfortably than other forms of change management.

This monograph is therefore an early contribution to what will inevitably become an area of increasing interest in the years to come, and it is likely that a concern with benchmarking and associated quality management initiatives will become increasingly central to future UNESCO activities within the field of higher education.

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## CHAPTER 1: AN INTRODUCTION TO BENCHMARKING IN HIGHER EDUCATION

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For most institutions of higher education the desire to learn from each other and to share aspects of good practice is almost as old as the university itself. With the emphasis on collegiality and the recognition of the international role of the university such desires have traditionally manifested themselves in numerous ways: professional associations, both academic and non-academic, meeting to share common interests; numerous visits by delegations from one higher education system to examine practice in another; professional bodies working collaboratively with institutions in supporting academic provision and mediating standards; and where formal quality assessment or accreditation systems exist, their ultimate dependence upon the maintenance of the goodwill of universities often by providing their own staff to take part as assessors of other institutions. Thus improving performance by collaboration or comparison with other universities is nothing new in higher education.

What is new, however, is the increasing interest in the formalisation of such comparisons, and this short monograph reports on one recent innovation in this area: the development of benchmarking in higher education. Arising as it does from other initiatives concerning both the enhancement and assurance of quality and the drive to increase the effectiveness of university management, benchmarking is directly relevant to current UNESCO concerns as described in its policy paper 'Change and Development in Higher Education' (1995).

The definitional problems associated with the term 'benchmarking' are considered in more detail in Chapter 2, but it is clear from both Chapters 3 to 6 and also relevant literature and benchmarking practice within the commercial sector, that the word is being used in widely varying ways. In a paper written for the Association of Commonwealth Universities, Fielden (1997) identifies the general confusion that exists "Like most management buzzwords the term 'benchmarking' is misunderstood and widely misused. To a great extent the confusion may be due to its appearance on the management scene at the same time as other techniques such as total quality management (TQM) and business process re-engineering (BPR) with which it is sometimes combined. The poor bewildered user then wonders which comes first: is TQM part of benchmarking? Do BPR and benchmarking fit together? And so on. After these hurdles have been mastered, further confusion develops with the burgeoning industry in the USA and Canada of quality awards."

Such confusion does indeed exist, but it is possible to identify a number of different approaches to benchmarking which may guide the reader through some of the problems of nomenclature, and also provide a framework by which different benchmarking

initiatives can be both identified and attempted. Such a framework is provided in Chapter 2, and is followed (in Chapters 3 to 6) by four reviews of benchmarking in operation within international higher education: in the USA and Canada; in Australia and New Zealand; in mainland Europe; and in the UK. In Chapter 7 these area reviews are complemented by a case study of a significant international benchmarking initiative run for Commonwealth universities by the Commonwealth Higher Education Management Service.

Two important contextual questions for the reader new to the topic need to be addressed at the outset: first, why the current interest in benchmarking within higher education; and second, what possible future directions exist for the application of a benchmarking approach to both country specific systems and also to international collaboration within higher education?

So far as the former is concerned, the origins of benchmarking in the private sector have been well rehearsed by a number of sources and need not be set out in detail (see for example, Spendolini 1992, and Coopers and Lybrand 1993). However, in summary, the main reasons have included: greater international competitiveness; the development of an interest in enhancing quality and the consequent growth of the quality 'movement'; and the rapid growth of information technology which has made data collection and management possible.

Of these three factors the increasing recognition of the need to ensure productivity and performance that compares with the 'best' in any particular field has been particularly important. Thus as Farquhar reports in Chapter 3, the original development of benchmarking in the USA by the Xerox Corporation came about because of the recognition of the need to improve performance in the face of increasing international competition. Similarly the publication of a number of influential comparative studies of industrial performance (for example Womack, Jones, and Roos 1990 on productivity in the international automobile industry) demonstrated clearly the greater effectiveness of many Japanese and non-US/European industries. For the companies concerned corporate survival necessitated looking beyond statistical performance indicators to examine the processes by which such productivity was achieved, and how similar gains could be made in different cultural settings. Such work demonstrates several key features in the development of benchmarking: that the focus of attention is often on the processes used by comparator organisations, and the identification of output data is but one step in the analysis of the effectiveness of process; that the intention is not to merely copy best practice, but to adapt it to different organisational cultures and reapply some of the operational principles that stem from it; and that some of the most interesting forms of benchmarking take place with either different kinds of organisations or across international boundaries.

At the same time other developments in the 'quality movement' brought such initiatives as business process re-engineering, international quality systems (ISO 9001 and so on), and total quality management (TQM) to the fore, with the latter being particularly

influential with its emphasis on factors such as continuous improvement, a customer focus, strategic management, the need for explicit systems to assure quality, the requirement for accurate and immediate data through techniques such as statistical process control, and - in order to implement the organisational changes required - a view of leadership and supervision that stresses employee empowerment and delegation.

Almost all such approaches to quality management emphasise evaluation, and broadly this can only be undertaken in four main ways: against defined objectives or standards (whether set internally or by external funding bodies); against measures of customer satisfaction; against expert and professional judgement; and against comparator organisations; with analysis in all four approaches being undertaken over a defined time scale. Thus benchmarking as it has come to be defined, was an inevitable outcome of the growth of the quality movement, and indeed a recent major review of benchmarking methodologies has identified a close conceptual and philosophical link between it and TQM (Zairi 1996).

The growth of sophistication in the data collection needed for benchmarking would not, of course, have been possible without recent development in information technology, and only relatively recently has it become possible to both collect and interpret the necessary performance data. Indeed, for many higher education systems such data collection remains problematic, and as the contributors in this monograph observe, much work still remains to be done within universities if adequate benchmarking data is to be made available.

Such developments within the commercial sector have been quickly followed by similar initiatives within the public sector in many countries, and a growing literature is now available on TQM and benchmarking within non-profit organisations (see, for example, Morgan and Murgatroyd 1994). Inevitably higher education has also expressed interest, although currently more in the application of TQM than in benchmarking, and as is evident from Chapter 3 to date most effort appears to have been applied in the United States. Within many higher education systems a similar set of contextual factors can be found to those that have affected the commercial sector, and which are increasingly likely to encourage more attention to the opportunities that benchmarking provides: interest in quality management continues to grow, often fuelled by governmental and public concerns about graduate standards and value for money; financial pressures constantly require institutions to seek new ways of utilising valuable resources; and in many countries new private universities or distance learning providers may stimulate competition with state funded institutions.

As can be seen in Chapter 2, the methodology of benchmarking with its conceptual emphasis on openness of analysis, organisational learning, and an examination of processes rather than a narrow focus on input or output data, has encouraged some commentators to be optimistic (or naive?) about its application in universities, arguing that such a methodology fits a university culture more comfortably than other forms of change management (see, for example, Alstede 1995). Indeed, in the UK Brennan

(1995) has suggested that benchmarking may be a more appropriate way of examining the performance of secondary education than the currently rigid assessment system used by established national agency (OFSTED).

However, the difficulties that many universities have experienced in attempting to use current output and input based statistical performance indicators should serve as a warning that the implementation of benchmarking will be anything but easy. For example, in Chapter 3 Farquhar notes the adverse effect on the acceptability of using performance indicators in Canadian universities that was produced by the contentious publication of the *Maclean's* league tables on university rankings. In a similar vein, a recent publication on the use of performance indicators in Commonwealth higher education systems exposes the frequent gap between data availability and the reality of its use to guide decision making (CHEMS, 1996).

However, despite such concerns it seems inevitable that both institutional and governmental interest in benchmarking will grow. In the USA pilot criteria were developed in 1995 for the application to both education and health care of the Malcolm Baldrige National Quality Award Scheme (see Fisher 1995), and participation in this scheme may increasingly challenge the existing NACUBO benchmarking process in universities reported in Chapters 3 and 5. Elsewhere benchmarking is increasingly entering the language of higher education, and the recent Dearing Report on the future of higher education in the United Kingdom specifically recommends that a new quality assurance agency should "work with institutions to establish small, expert teams to benchmark information on [academic] standards" (HMSO 1997). Similarly in England the Higher Education Funding Council (HEFCE: the body which allocates central funds to universities and colleges) has started to undertake a number of initiatives, including producing a handbook on using benchmarking when purchasing goods and services, and has also recently commissioned a comparative study which reviews the costs of undergraduate teaching in selected countries.

The remaining years to the turn of the century are therefore likely to see a number of experiments and innovations in the application and use of benchmarking in higher education, and it is currently too early to predict whether they will be successful. However, if even partial success is achieved, then it is likely that the methodology will subsequently be widely used, not least on an international basis in an attempt to examine the reasons to explain the widely differing levels of effectiveness of universities within similar geographical regions. This monograph is therefore an early contribution to a debate that will inevitably expand in the years to come, and it is likely that its concerns will become increasingly central to future UNESCO activities within the field of higher education.

## References

See the end of Chapter 2

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## **CHAPTER 2: BENCHMARKING: AN OVERVIEW OF APPROACHES AND ISSUES IN IMPLEMENTATION**

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As a prelude to the following reports of benchmarking initiatives which are currently taking place, this Chapter provides: an overview of how benchmarking is being defined and interpreted; identifies a number of approaches by which it is being undertaken in higher education; and constructs a framework to assist universities interested in exploring benchmarking to compare one approach with another.

### **Benchmarking: The Problems of Nomenclature**

It is clear from both the first Chapter and the various contributions to this monograph, that what is understood as 'benchmarking' varies considerably between both different approaches and different practitioners, thus causing problems to institutions investigating the subject for the first time. These difficulties of nomenclature go well beyond what may be ultimately sterile attempts to find acceptable definitions for their own sake, and instead reveal considerable cultural and methodological differences of approach which underpin how benchmarking is implemented. In his Chapter on Australia, Massaro identifies one aspect of the problem in that "the term is used fairly loosely to cover qualitative comparisons, statistical comparisons with some qualitative assessment of what the statistics mean, and the simple generation of statistical data from a variety of sources which are then published as tables with no attempt at interpretation." On the other hand, Wragg in his description in Chapter 7 of the Commonwealth 'Benchmarking Club' sees one of the advantages of the co-operative methodology that was adopted in that approach as leading to "a true benchmarking process, ie in the absence of predetermined benchmarks, the aim is to establish benchmarks through the process... which can themselves be used in future to guide management in the quest for continuous improvement."

Part of the problem here is not only that different practitioners have their own definitions of benchmarking, but that within the quality assurance and enhancement literature the term has come to have a set of meanings somewhat removed from what is generally recognised as a 'benchmark', which is normally considered as a standard by which an item can be measured or judged. It is clearly in this sense that the term was used by the Dearing Review of Higher Education in the UK (see Chapter 1), and is being used by those not versed in the special language of the quality 'industry'. Thus in a recent short article for the HEFCE, Fielden (1997) notes that in higher education many people confuse benchmarking "with collecting statistics or performance indicators and complain about the poor cost-benefit of data collection exercises".

Such a problem is not, of course, unique, and there are numerous examples of incompatibility of terminology between the special usage by the quality movement and more general use within organisations. Indeed, it is arguable that the widespread, and sometimes ill-formed, application of approaches such as total quality management and business process re-engineering has meant that they have largely lost any methodological clarity that might have been associated with their original meanings, and they have become instead almost a 'catch-all' phrase for a wide range of change management and reorganisation strategies. Any conceptualisation of benchmarking based upon a 'non-technical' definition would therefore need to include suitably developed statistical performance indicators and associated statistics, providing they can be used for meaningful cross-institutional comparisons. In this context the use of the term 'implicit benchmarking' by the Association of European Universities (CRE - see Chapter 6) has the attraction of bridging the gap between the reality of likely applications within higher education, and the strongly process oriented approaches favoured by many of those in the quality movement.

One practical example of the difficulties caused by the confused definitional assumptions which underpin benchmarking, is the status that should be given to the privately produced 'league tables' of university performance, for example the *Maclean's* publication in Canada and the *Times Good University Guide* in the UK (see Chapters 3 and 5 respectively). For the reasons cited above, although the comparative statistics provided in such publications would be not technically regarded as benchmarking, in increasingly market oriented education systems a poor rating in such tables may provide a much more effective stimulus for immediate comparisons with other institutions (and for resulting organisational improvement) than any number of more carefully planned quality enhancement strategies. The crucial issue here is that such data must be capable of meaningful comparison, and - as noted above - the mere collection of statistics is not enough.

However, for most practitioners the existence of a benchmark is but one necessary step in the overall process of benchmarking. Definitions of benchmarking vary widely, from the practical "a self-improvement tool for organisations which allows them to compare themselves with others, to identify their comparative strengths and weaknesses and learn how to improve. Benchmarking is a way of finding and adopting best practices" (Fielden 1994); to the participative "the open and collaborative evaluation of services and processes with the aim of emulating best available practice" (Price 1994); through to the global and ambitious "benchmarking is the process of continuously comparing and measuring an organisation with business leaders anywhere in the world to gain information, which will help the organisation take action to improve its performance" (American Productivity and Quality Center 1993).

In the face of such potential confusion, a number of sources have found it easier to describe what processes characterise typical benchmarking rather than trying to define it. Thus it is generally recognised that benchmarking is a means of making comparisons of performance, usually with a view to establishing 'good' - or more ambitiously 'best' -

practice methods, and as such it is also used to diagnose problems in performance and to identify areas of strength. Like the publication of performance indicators, benchmarking does not necessarily provide solutions to problems - it is an aid to judgement rather than a substitute for it.

In general, the authors of the subsequent chapters in this monograph support the general conclusion of the benchmarking literature that as a process it will not provide simple formulaic solutions because it generally produces 'yes, but' results. As such although the data being used may be accurate and worthy of comparison, any subsequent interpretation needs to take account of the particular circumstances applying to the comparators concerned. Benchmarking can, however, help: to identify the key attributes of the function being benchmarked; to determine the key indicators of performance for any particular functions or task against objectives; to select the appropriate comparators (such as 'similar' universities with a particular reputation for doing things well); to compare performance on key indicators; and examine performance over time. A central purpose of benchmarking is therefore to provide managers with an external point of reference or standard for evaluating the quality and cost of their organisation's internal activities, practices, and processes.

It follows that benchmarking will not be effective if it simply takes a snapshot of a comparative situation. It needs to be an on-going, systematic process for measuring and comparing the work processes of one organisation with those of another by bringing an external focus on internal activities. Having achieved this, managers will need to make judgements based on the nature of the problem to be solved, and the context in which it has arisen. For example, knowing that a university of similar size in another part of the city or the globe can perform the task of enrolling students at a lower cost than the manager's own university will enable the process to be examined to see whether aspects of the more efficient model can be transferred to his or her own institution. However, it is unlikely that the solution will be transportable in total because there will be legitimate aspects of the process in each case which will need to be preserved for local reasons. The question posed for management is thus about the number of such specific conditions which a university is prepared to accept, knowing that each will make its processes more expensive than those of its peers.

If the dangers of misleading one-off snapshots are to be avoided, it follows that benchmarking should be used in order to enable an institution to set targets for the continuous improvement over time of its performance to achieve best practice. An important conclusion from the following chapters is the message that benchmarking can be an effective diagnostic instrument and suggest alternative solutions, but that the judgement about how far those solutions can be applied must remain in the hands of management.

In addition to concentrating on what benchmarking is, another way of identifying what constitutes it is to identify what it is not. Thus, the Innovation Network, a US-based higher education management consultancy group, makes the point that ideally

benchmarking is not just 'comparative analysis' of how an institution matches up to others in terms of measures like student-staff ratios, or graduation rates, because this "doesn't drive change" and "does not specifically focus on the practices which create superior performance". It is not 'process re-engineering' (where internal processes are examined and improved, without looking at other organisations' practice). It is not just a survey, where data is presented in aggregated or average terms; benchmarking studies, by contrast, draw attention to successful scenarios of practices for the process or function. Nor is it a "three-hour 'show and tell' session" with another institution, because "no improvement mechanism has been developed...nor have any measurements of success typically been put in place" (Innovation Network, 1994).

Other distinctions between what benchmarking is and is not were drawn by Spendolini (1992) in a important work for the American Management Association, when benchmarking was identified as: a continuous process and not a one-off event; a process that provides valuable information rather than simple answers; a process of learning from others rather than mere copying of ideas or practice; a time-consuming and labour intensive process rather than being quick and easy; and viable tool for improving virtually any business activity rather than a buzzword or fad.

The assumptions behind such ideas are thus closely associated with those approaches to quality management that stress assurance and enhancement rather than relying solely on assessment, and see a proactive and ongoing commitment to quality as central to the success and survival of universities. To this extent there is some evidence that successful benchmarking is much more likely to take place in those organisations that are already relatively well managed and with a strong emphasis on innovation (Price 1994), and conversely are likely to be less effective in individualistic or autocratic cultures where the long term discipline required for benchmarking is unlikely to be found. This latter conclusion may, of course, have significant implications for universities.

However, not only are organisational cultures and structures important in determining the appropriateness of benchmarking and related quality approaches. The meanings attached to benchmarking processes, the organisational assumptions on which they rest, and the consequent success of any benchmarking initiatives are likely to be significantly affected by the social culture of the university system concerned, and it is particularly important to highlight such factors in any international monograph of this kind. Thus the centrality to TQM, benchmarking, and associated quality enhancement methods of concepts such as transforming leadership, staff empowerment, organisational learning, and so on, clearly rests on the extensive development work undertaken in the United States, the transferability of which to other cultures is at least questionable. Indeed using a model of cultural management such as that produced by Hofstede (1991), it should be at least partly possible to predict some of those changes that would be required to successfully operationalise benchmarking in cultures that do not find US derived approaches to management - and particularly people management - appropriate.

In summary, what can be concluded about the problems of nomenclature, and the consequent dangers of a lack of conceptual clarity about benchmarking? First, that in an international monograph it is impossible to be overly prescriptive about what constitutes benchmarking, and a methodologically 'pure' definition is likely to rule out a lot of what constitutes current practice. For this reason consideration is given in the following chapters to a range of approaches that might fall within the heading of 'implicit benchmarking', including the production and publication of data and performance indicators providing it is designed for comparative analysis and use, as well as more ambitious institutional attempts to use benchmarking as the basis for process oriented institutional change programmes.

Secondly, the range of approaches and definitions may perhaps be viewed most simply as a continuum, with a data driven and non-process focus at one end, and conceptualisations which integrate benchmarking with TQM as part of coordinated process-driven quality improvement programmes at the other.

Third, it is clear that almost all work on benchmarking to date has involved the voluntary involvement of institutions, and indeed this is axiomatic so far as its early application within the private sector is concerned. However, as interest in benchmarking grows, the potential within the public sector to benchmark whole sectors (universities, health services, etc) is almost certain to be considered by governments and funding bodies, and it is not impossible that the development might occur of compulsory institutional participation in benchmarking. Although such an approach might be resisted by both benchmarking specialists and many of the universities concerned, such a compulsory approach would be consistent with the imposition of other quality management and assurance mechanisms in many higher education systems. Of course, if such a development occurs, it is clear that much of the current conceptual thinking about the basis for benchmarking will need to be re-considered.

### **The Practice of Benchmarking**

From the above it is clear that process oriented benchmarking within higher education seeks to answer some of the following questions: how well is the university or college doing compared to others? how good, and in what areas, does the university we want to be? across the university as a whole which part of it is doing best, and how do they do it? how can universities introduce into their own practice what is done well in others? how does an institution improve its performance while retaining its unique features? and - more competitively - in the longer term how an institution might become better than the best in the context of its own mission? For many in universities such questions will be provocative, and a challenge to the traditionally inward looking decision making systems of higher education.

However, it is not only many academics who will find such questions a challenge to their professionalism, and many over-worked non-academic staff may also resist the disruption to institutional life that inevitably follows from answering such questions.

Indeed, one of the problems in many benchmarking exercises is that it is those at senior levels in organisations and who are doing the co-ordination that are generally far more enthusiastic about it than those who are required to produce the necessary data. The issue which needs to be addressed in any organisation, therefore, is the mechanisms for internalising the process. This is no different from the problems encountered in any method of continuous improvement or quality assurance, but unless the process is understood and embraced by the organisation at all levels and the results are seen to be put to good use, there will be little enthusiasm for it. Like any system, if benchmarking requires staff to undertake activities which have low face validity or to produce data which are generally not already required for other purposes, they are unlikely to be willing participants in the project. Thus it is important that any benchmarking exercise uses as much of the data which is already readily available as possible in order to generate the support and co-operation required for a successful outcome.

It follows that any organisation seriously considering introducing benchmarking needs to consider carefully both the type of benchmarking that is appropriate and also the methodology that it wishes to adopt. A number of choices in both areas are available, and from these a framework may be constructed to classify initiatives and to locate what forms of activity are currently being undertaken.

So far as *types of benchmarking* are concerned, Alstete (1996) identifies four categories based upon the voluntary and proactive participation of institutions, to which a fifth (the so-called 'implicit benchmarking') might be added to cater for situations where the initiative for some variant of benchmarking within higher education results from the market pressures of privately produced data, from central funding, or from co-ordinating agencies within individual systems. In such cases a strong process focus may be difficult to achieve, and an analysis of relevant outputs may be all that can be achieved. These types are:

1. **Internal benchmarking** in which comparisons are made of the performance of different departments, campuses or sites within a university in order to identify best practice in the institution, without necessarily having an external standard against which to compare the results. This type may be particularly appropriate to universities where a high degree of devolvement exists to the constituent parts of the institution, where a multi-campus environment exists, or where extensive franchise arrangements exist whereby standard programmes are taught by a number of partner colleges in different locations.
2. **External competitive benchmarking** where a comparison of performance in key areas is based upon information from institutions which are seen as competitors. Although initiatives of this kind may be potentially very valuable, and have a high level of 'face' validity amongst decision makers, the process may be fraught with difficulty and is usually mediated by neutral facilitators in order to ensure that confidentiality of data is maintained.

3. **External collaborative benchmarking** usually involves comparisons with a larger group of institutions who are not immediate competitors. Several such initiatives are reported below, and the methodology is usually relatively open and collaborative. Such schemes may be run by the institutions themselves on a collective basis, although in other cases a central agency or consultant may administer the scheme in order to ensure continuity and sufficient momentum.
4. **External trans-industry (best-in-class) benchmarking** seeks to look across multiple industries in search of new and innovative practices, no matter what their source. Amongst some practitioners this is perceived to be the most desirable form of benchmarking because it can lead to major improvements in performance, and has been described by NACUBO (North American Colleges and Universities Business Officers) as "the ultimate goal of the benchmarking process". In practice, it may be extremely difficult to operationalise the results of such cross-industry comparisons, and may also require a very high level of institutional commitment to cope with the inevitable ambiguities that will result. Outside the USA little use of this approach is reported within higher education, and it may be that some universities will wish to participate in inter-university benchmarking before considering this more ambitious approach.
5. **'Implicit benchmarking'** has already been referred to above, and is likely to increase in future years as governments and central funding agencies seek to apply benchmarking approaches to universities. Although the appropriateness of the term benchmarking in this context might be questioned by some, it is clear that many of the current activities taking place in Europe are of this nature (see Chapter 6), and also that initiatives such as the HEFCE Value for Money Studies reported in Chapter 5 will come to be regarded at least as quasi-benchmarking in future.

Separate from these types of benchmarking are the *methodologies* that institutions can adopt, and five main approaches are evident within the following Chapters:

1. **Ideal type standards (or 'gold' standards)** whereby an model is created based on idealised best practice, and then used as the basis to assess institutions on the extent to which they fit that model. No single organisation is likely to score highly against all the dimensions of the model, and the Malcolm Baldrige Awards (see Chapter 3) is a good example of this type of approach.
2. **Activity based benchmarking** is a methodology in which a selected number of activities, which are either typical or representative of the range of institutional provision, are analysed and compared with similar activities in other selected institutions. Such activities may be considered solely in their own terms, or may act as a proxy for overall institutional performance. The CHEMS Commonwealth Benchmarking Club described below is an international example of such an approach.

3. **Vertical benchmarking** seeks to quantify the costs, workloads, productivity and performance of a defined functional area, for example the work of a student admissions department. As this approach is generally based upon existing organisational structures, data collection is often more straightforward than with some other methods. Such initiatives may be limited to the investigation of a single area or may be multi-dimensional, although if extensive may come close to activity based benchmarking.
4. **Horizontal benchmarking** on the other hand seeks to analyse the cost, workloads, productivity, and performance of a single process that cuts across one or more functional areas, for example all aspects of student admissions irrespective of their location within an institution. As such the results provide a comprehensive review of institutional practice in any particular area, but data collection and interpretation may be highly problematic. Both horizontal and vertical benchmarks are useful diagnostic tools in identifying and prioritising opportunities to improve an administrative process or function.
5. **Use by institutions of comparative performance indicators** is, as noted above, a highly questionable form of benchmarking, but a number of initiatives are reported below that are extremely important in influencing judgements being made about comparative performance within universities. Of these the most notable are the privately collected and published league tables of university performance (*Maclean's*, etc), but finance officers in Hong Kong and facilities managers in Australia are reported to be collecting and sharing output data for the purpose of assessing comparative performance, and many are using the term benchmarking to describe the activity.

As a guide for readers, Figure 1 presents the type of benchmarking undertaken and the methodology used as part of a two dimensional matrix in order to create a framework for locating the specific innovations in benchmarking which are reported in the following chapters. Because of the experimental nature of much of the existing work, not all boxes in the matrix have activities that are, as yet, reported, and indeed some combinations would be operationally difficult if not impossible. However, it is clear that considerable diversity of effort is already taking place. Clearly, the result is an ideal typification, and to that extent greatly simplifies often complex approaches, but it may nonetheless be a useful guide for institutions considering introducing benchmarking in some form.

From Figure 1 it would appear that the most popular type of benchmarking currently being undertaken involves collaboration with similar institutions, both within particular countries and also internationally. This perhaps is not surprising, in that despite increasing market pressures, higher education remains an essentially collaborative activity with institutions having a strong tradition of mutual support. What is, of course, unclear from such approaches is the extent to which individual universities have been able to introduce changes to internal procedures or processes as a result of the

collaboration with other institutions, and this can only be identified through subsequent evaluation.

### **Implementing Benchmarking Initiatives**

Although it is clear from the following chapters that considerable experimentation in benchmarking is taking place, there is a paucity of evidence about the success of institutions in implementing initiatives. Indeed, what information exists suggests that there are few examples of universities managing to translate their interest in participating in benchmarking groups into using benchmarking as a mechanism for undertaking effective organisational change.

It follows that factors concerning successful implementation need to be sought from the broader benchmarking literature, and typically two main issues emerge: those that concern the management and implementation of benchmarking initiatives; and those that concern the methodology and processes used. So far as the first is concerned, the Innovations Network (1997) identifies seven critical mistakes which are typically made by an organisation attempting benchmarking: ineffective leadership, poor team selection and preparation, inadequate support mechanisms for teams, imprecise objectives, unrealistic time and cost expectations, inadequate understanding of both data and practices, and inappropriate follow-through. Fielden (1997) supports some of these conclusions by observing that a common misconception is that benchmarking is a relatively quick and inexpensive process. Rather, he notes that the converse is true, and it will take considerable time from both senior and middle level staff in universities if frustration and failure is to be avoided. However, such factors - important as they are - appear generic to almost all types of change management, and it is difficult to identify many key implementation factors which do not also apply to TQM, the implementation of ISO 9001, and to other quality systems.

So far as the methodologies for benchmarking are concerned, it is clear from the initiatives described in the chapters below that a wide variety of approaches are practised, from the simple to the complex. However, because of the infancy of benchmarking in higher education it is too early for details of successful methodologies to be identified, and once again readers interested in this area will need to refer to the literature on benchmarking in the private sector. Here a wide of methodologies can be found, from Spendolini's (1992) beguilingly simple five step process involving: determining what to benchmark; forming a benchmarking team; identifying benchmarking partners; collecting and analysing information; and taking action; through to the much more comprehensive conceptualisation of Zairi (1996) who presents a 16 step two-phase approach which distinguishes between actions to ensure the effectiveness of current processes and those to gain the benefits of competitive benchmarking. Discussion of such methodologies is beyond the scope of this Chapter, but Zairi provides a helpful overview of a wide number of such approaches, including the original approach used by Xerox.

This lack of data about implementation within higher education makes any kind of guidance about what constitutes 'good practice' extremely difficult to provide. Indeed, as Farquhar notes in Chapter 3, even in the USA the potential of benchmarking has not been exploited within higher education, and although numerous performance indicators and individual benchmarks have been collected a coherent management change strategy based on benchmarking is rare. In practice, therefore, most institutional initiatives are probably best characterised as being of the 'implicit benchmarking' kind, thus leaving open the question of whether the more demanding uses of benchmarking to aid institutional management in universities is realistic.

It quickly becomes apparent that the difficulties of implementing process oriented benchmarking in universities are similar to those encountered in introducing other comprehensive approaches to quality management, for example, TQM. As the Chapters on both Canada and Europe make clear the cultural, and in some cases legal, contexts in which many universities operate makes any comprehensive and institution-wide quality management initiative extraordinarily difficult to implement. In this context, there is mixed evidence about the effectiveness in higher education of TQM and other quality management initiatives. Although some success is reported (see, for example, Doherty 1994), a number of critics have queried the suitability of sustained TQM approaches in universities, and have suggested that: the traditions and organisational structures of universities have meant that TQM has rarely maximised its potential; that the kind of effective change management which encourages widespread ownership of quality initiatives is both rarely practised and is also extraordinarily difficult to achieve in the diverse cultures that characterise many universities; and that the rhetoric of claimed success is often considerably greater than the reality that is achieved (see, for example, Hall 1996).

In this situation, it is likely that in the majority of cases those benchmarking activities that are attempted will be either relatively small in scale and undertaken by 'enthusiasts for the process' (several examples are cited in the following text), or driven by senior managers and directed at either priority functions or areas of perceived poor performance. Valuable as both approaches may be (and Massaro in Chapter 4 concludes that there is evidence in Australia that small scale initiatives are likely to be more successful than larger ones), the outcomes are unlikely to gain broad commitment to benchmarking across the institution as a whole. Providing the language associated with benchmarking in higher education is appropriately modest then this may not matter, but the more extravagant definitions of the process will not help to gain institutional credibility. There is a clear parallel here with the application of TQM in some institutions, where the expansive rhetoric was often perceived by university staff to be in conflict with the gains in quality that were achieved in practice. For Adams (1997) the idea of modesty, honesty, starting small, and proving the benefit of limited quality management initiatives, is the key to subsequent success, and he suggests that only in this way can the resistance of many academic staff be overcome to what many may perceive as overly managerial initiatives which challenge traditional assumptions about academic and professional life.

## Conclusions

The primary conclusion of the studies reported in this monograph has to be that whilst benchmarking has clear potential as an effective approach to quality management within higher education, it is too early in its application to be able to form a clear view on whether this potential will be realised. The substantial improvements in both quality and performance achieved through the use of benchmarking by many private and public sector institutions is a convincing case for the effectiveness of the approach, but whether this can be achieved in any comprehensive way within universities is less certain.

It is evident that a large amount of interesting work is currently being undertaken, and much of this will need to be evaluated carefully before the benefits can be compared to the significant amount of resources (especially time) that are involved. In addition, numerous small scale initiatives, driven by supportive leadership, are likely to multiply and more activity will become evident, but beyond this the use of benchmarking at the level of whole institutions is more problematic.

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### **CHAPTER 3: HIGHER EDUCATION BENCHMARKING IN CANADA AND THE UNITED STATES OF AMERICA**

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Although North America is the birthplace of benchmarking and there are numerous references to it in both published and fugitive literature, its application to higher education in the US and Canada is of more recent vintage and has generated only a few publications so far. The author found the most useful to be Jeffrey W Alstete's *Benchmarking Higher Education: Adapting Best Practices to Improve Quality*, published in 1995 by The George Washington University as the fifth in a series of Higher Education Reports prepared by the Educational Resources Information Clearinghouse on Higher Education in cooperation with the Association for the Study of Higher Education. That monograph plus some helpful correspondence and materials received from the Houston-based American Productivity & Quality Center (APQC) along with several volumes on total quality management and continuous improvement in universities comprise the main US data sources for this Section. The Canadian content required reliance on telephone and in-person interviews with three university representatives and officials of the Association of Universities and Colleges of Canada, the Canadian Association of University Business Officers, and the Conference Board of Canada.

Both Alstete and the APQC provide definitions that clarify the term 'benchmarking', as it is used herein, from two perspectives. First, it is related to such other 'customer-oriented' contemporary approaches to better management as Business Process Reengineering (or Redesign), Continuous Quality Improvement, and Total Quality Management; these procedures do not necessarily include benchmarking but it can contribute to their effectiveness, and benchmarking may be undertaken as a less comprehensive comparative process on a stand-alone basis. Secondly, benchmarking can be viewed as the end of a procedural continuum which begins with management information and progresses through performance indicators, benchmarks, and best practices to true benchmarking (see Chapter 2).

Alstete goes on to elaborate the definition by discussing various types and phases of benchmarking, the history of its evolution, its uses and results, examples of its successful application, how to get it started, and factors that can cause its failure. But it is sufficient for present purposes to simply define the term as above and get on with the task of this Chapter, which is to report on the use of benchmarking in American and Canadian higher education. The US situation will be outlined first since the phenomenon began sooner, is more widespread, and has advanced further there than in Canada. Then, following a summary of the Canadian scene, some concluding observations will be presented.

## USA

Alstete notes (p. iii.) that benchmarking was developed in the US during the early 1980s at the Xerox Corporation "in response to increased competition and a rapidly declining market share". Since then it has proliferated in the business sector and an industry of services has arisen to support it. There are, for example, benchmarking clubs, networks and exchanges - groups of organizations that have formed collectivities to facilitate the sharing of information and the arrangement of visits for benchmarking purposes; there are numerous data sources and other resources available, sometimes at a price, for organizations that wish to benchmark independently of the established cooperatives; and there are software packages and consulting firms specifically focused on the conduct of benchmarking. The esteemed Malcolm Baldrige National Quality Award, presented annually since 1987 to those few selected organizations that best demonstrate management techniques resulting in significant quality improvements, incorporates the benchmarking process as an important part of the award criteria. And the APQC has even published a "Benchmarking Code of Conduct"; this document, adopted by the APQC's International Benchmarking Clearinghouse and the Strategic Planning Institute Council on Benchmarking, urges that all organizations adhere to stated principles of legality, exchange, confidentiality, use, first-party contact, third-party contact, preparation, completion, understanding and action (Alstete, pp.97-9). So benchmarking has become big business in the United States.

The APQC is probably America's major benchmarking organization. It was founded in 1977 by the man who currently chairs it, C Jackson Grayson, as a non-profit corporation to help organizations of all kinds improve productivity and quality. It does that through training programs, information services, policy development, research, publications, and consulting. Staffed by about 100 people, the Center operates on an annual budget of about \$11 million with a Board of Directors comprising fifty prominent persons. It was one of the first organizations to start what is now the Baldrige Award, which it co-administered for three years.

Perhaps the most prominent component of the APQC is its International Benchmarking Clearinghouse (IBC), which was established in 1992 with eleven multinational corporations as founders and has a membership (in June 1997) of 467 companies (including several based in Canada). The IBC's purpose is through benchmarking to help organizations find, adapt and implement best practices, and to help them learn how to benchmark. It conducts benchmarking training, does benchmarking studies, organizes benchmarking consortia, holds member meetings, creates and facilitates common interest groups, does information searches, leads an electronic benchmarking network, creates benchmarking publications, and gives benchmarking awards for excellence. In 1995 the IBC itself was recognized, in a study on "Choosing the Right Benchmarking Methodology" by Mohamed Zairi at the European Centre of Total Quality Management in the UK, as being "number one in benchmarking methodology" in the world. As stated in the APQC press release on that occasion:

"The Clearinghouse benchmarking methodology is cyclical and based on a process of continuous improvement: plan, collect, analyze, and adapt. This methodology helps companies determine what process to benchmark, identify who does that process best, collect information to thoroughly understand the process, analyze the gap between the processes, and implement improvements based on the findings. The Clearinghouse method adopts a strategic/ operational focus, with priorities based on customer needs, strategic needs, and their overlap with processes."

Among its major products, the Clearinghouse has recently developed with Arthur Andersen & Co a comprehensive 'Process Classification Framework' which categorizes more than 200 management functions into a taxonomy of thirteen groups of operating, managing and support processes to avoid 'apples and oranges' problems when an organization undertakes benchmarking especially 'outside the box' (ie, with different kinds of organizations), which the APQC encourages.

Membership in the IBC entails a one-time initiation fee of \$1,000 to \$12,500 depending on an organization's size and type (which is tax-deductible because of APQC's non-profit status) and a \$6,000 annual membership fee. Member benefits include such exclusive services as comprehensive needs assessments and action plans to exploit the Clearinghouse's services, online access to a best practices data base of more than 2,000 abstracts, direct contacts within all member organizations, customized service from an account executive, findings from consortium benchmarking studies, subscriptions to periodical publications, and others. Its studies are conducted in two modes: consortium benchmarking, wherein ten to twenty organizations join together in a six month project to benchmark a selected process (at a cost of \$12,500 each); and individual benchmarking, in which a single organization sponsors a study to compare its performance and/or improve a specific process by identifying best practices (at a cost of \$25,000-\$100,000 per sponsor). In both cases, Clearinghouse members are given a 20% discount on the price. The work of APQC's International Benchmarking Clearinghouse has been highlighted herein not only because of its prominence on the American scene but also because the Center has recently been paying some attention to the higher education sector, as discussed later.

Among universities in the US the predominant agent in benchmarking is probably the National Association of College and University Business Officers (NACUBO). Although it has facilitated the nationwide collection and sharing of information on selected higher education functions since the 1960's (eg, expenditures on fund-raising) NACUBO did not inaugurate its current benchmarking program until 1991, when around 150 colleges and universities participated in a two-year pilot project covering about forty functional areas with some 600 benchmarks (Alstete, pp.40 ff). Since then, the program's scope has been refined to five core functions plus up to an additional 35 optional areas. Its goal is to encourage the cooperative discovery of best practices and the use of data provided to improve operations, and it typically covers such processes as

general registration, development, payroll, and purchasing. Conducted annually by NACUBO with the help of Coopers & Lybrand's Higher Education Consulting Group and three other consulting firms, the study entails costs to participating institutions that range from \$2,500 to \$9,000 depending on the scope and number of functional areas involved; included in the price (and regionally distributed) are a pre-data collection workshop, a training session on how to collect and enter data electronically, and a post-data collection workshop on how to use the information from the survey report.

Although this program provides information for benchmarks, it does not necessarily result in benchmarking as defined previously. As Alstete notes (pp.41-2), "different colleges and universities have decided to use the data provided by the NACUBO project in different ways", such as facilitating business process reengineering and TQM efforts, but not necessarily for benchmarking *per se*. It provides participants with a detailed gap analysis, comparing their own performance of a process with the means of all study participants and cohort groups, but what the institution then does with this information is up to it. While there have been positive reports of operational improvements resulting from participation in the program (including the opportunity it provides for longitudinal analyses) there have also been criticisms of such features as its high level of data aggregation and of detail in results, the lack of accountability for implementation, the paucity of information on academic departments, and the failure to look 'outside the box' for best practices (Alstete, p.43). However, NACUBO endeavours to improve its approach with each yearly iteration and, although there have been many dropouts (including some Canadian institutions), there remain almost 100 subscribers - some regularly and others occasionally - from a potential pool of around 1,500 institutions.

In addition to this comprehensive NACUBO approach, there are several other more specialized national projects to facilitate benchmarking in particular units of American universities. These include efforts by such organizations as the Association for Continuing Higher Education, the American Assembly of Collegiate Schools of Business (which spun out a consulting company called Educational Benchmarking Inc), and various other professional associations and *ad hoc* consortia of institutions (several regionally-based) that form to share structured information on selected processes and functions over a certain period of time. Like the NACUBO program, however, these tend to be services that provide data from which an institution can establish benchmarks; they are not operations that perform true benchmarking, although several dozen of them, led by NACUBO, have joined to form the National Benchmarking Council for Higher Education (which held its 1997 annual meeting in Ottawa, Canada).

The Innovations Network in the USA recently issued an 'Insights Series' on applying benchmarking to higher education (available on the world wide web) in which it asks the apparently simple question: how can you go wrong by modelling yourself against the best? Unfortunately a recent best practices report published by the American Quality Foundation found that the majority of companies surveyed had no compelling positive impacts or even negative results from their benchmarking efforts. Nor were any major success stories reported as emerging from higher education for those who have

attempted benchmarking. As noted in Chapter 2, the Innovations Network identifies seven critical mistakes which are typically made by organisations, including universities, attempting this technique for the first time: insufficient leadership involvement; poor team selection and preparation; no support mechanisms for teams; imprecise objectives; unrealistic time and cost expectations; inadequate understanding of both data and practices; and inappropriate or non-existent follow through.

It is likely that, to the extent that true benchmarking is occurring in American universities, it tends to be undertaken independently of (or only tangentially related to) these larger projects, initiated by a single institution that believes it can do better a process it considers strategically important, seeks out organizations it thinks excel at that process (not necessarily other colleges and universities), determines what they do differently in order to achieve their superior results, and tries to adapt those methods to its own operation by introducing or enhancing features that enable the desired approaches and reducing or eliminating those that hinder them. Most of this activity remains unreported in the literature so it is impossible to determine how widespread it is, although Alstete identifies some published and anecdotal evidence that it exists, that it covers undergraduate and graduate teaching processes as well as academic and business administrative practices, and that it includes benchmarking with organizations external to higher education.

A review of the rather copious literature on quality management, continuous improvement and process re-engineering yields a few other illustrations of such endeavours. For example, El Ahraf, Gray and Naquib (1995) report on a system wide benchmarking project organised and funded by the California State University in which thirteen administrative systems in its twenty institutions were benchmarked by identifying best practices through the NACUBO programme. However, how they did it, whether or not it involved 'true' benchmarking, and what the results were are however not indicated. The same volume contains a chapter by Robinson and Dalzell (1995) on continuous quality improvement in an academic health centre, and documents a substantial quality improvement programme at the University of Kentucky in which one element involved collecting information from university benchmark institutions. Four case studies are included to demonstrate the programme's success, but again it is unclear whether or not the interaction with other institutions extended beyond information collection to 'true' benchmarking.

Bell's (1995) case study in Serebrenia J et al (1995) of process improvement at the Carlson School of Management at the University of Minnesota, chronicles a multi-stage application of TQM to the School's Career Service Centre in which benchmarking was a prominent step. In the event, however, it is reported that it was omitted because of time limitations. Such examples provide clear evidence of the difficulties of undertaking benchmarking within American universities, but one group that has made an investment in it is the American Quality Consortium, a collection of twenty one institutions of higher education in the US that are committed to implement collaboratively continuous quality improvement. Created in 1993 by the American Association for Higher

Education in Washington, and the William Norris Institute in Minneapolis, the AQC participated in the development and pilot testing of the criteria for use in establishing a Baldrige Award in Education which - as with those for the parent programme - included benchmarking as a specific factor for evaluation in determining the winners. Daniel Seymour and associates (1996) have published a substantial two volume report on this experience, and the second volume makes recommendations for the practical application of a Baldrige self-assessment in a higher education setting, and includes a major case study of one participating institution (Northwest Missouri State University) and the results of investigating the experiences of six others.

With respect to benchmarking criterion, the NSW case study includes University and Baldrige examiners comments on each item in the submission. Thus it is clear that the University is intent on practicing 'true' benchmarking, that positive change has resulted, and that the process remains a central priority within the institution's mission as well as a key part of its improvement efforts. In examining the experiences of six institutional participants in this process it was found that those which scored best on the benchmarking criterion translated the data into stated goals, but that it was not always clear how performance was improved and they sometimes benchmarked only metrics rather than practices. Those which scored worse suffered from a limited scope of benchmarked data and a weak choice of comparison institutions. There are other examples of American universities that have engaged in benchmarking (Oregon State is frequently cited) but the above are sufficient to indicate that it is being done with varying degrees of success, and in a few places where senior managers believe it can contribute to broader continual improvement endeavours. It is also evident that the process is a very resource consuming one and that effective implementation requires total commitment, deep faith and considerable skill on the part of executive heads.

Nevertheless, it is apparent that leaders of higher education institutions in the U S are far from exploiting the benefits of benchmarking to the extent that their counterparts in American business, healthcare, and government have. This unrealized potential has been noted by Jack Grayson, who chairs the APQC, and he has decided to do something about it, as indicated earlier. In 1995 he visited sixty associations and institutions of higher education across the United States and, as noted in a letter to the author, he "found almost zero benchmarking, but a fair number collecting benchmarks. But even then, their efforts were sporadic and uneven in quality". In a chapter on "Benchmarking in Higher Education" which he has recently drafted for a book about higher education, Grayson identifies seventeen reasons "why education lags in benchmarking" and then proceeds to describe his major response to this state of affairs: establishment in 1996 within the APQC of an Institute for Education Best Practices, which is positioned to draw on the successful experience of the Center's International Benchmarking Clearinghouse in other sectors.

The new Institute has been created "to encourage and assist education institutions in benchmarking not just with other education institutions, but also with business, healthcare and government". As noted in his chapter draft (p.12), Grayson's Institute

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uses the consortium study model developed by APQC's Clearinghouse (at the same price) to engage ten to twenty sponsoring institutions in the study of a particular process through personal involvement:

- Each sponsor commits at least two persons to the study. These come together in the beginning for a day-and-a half meeting to scope the study, decide on the criteria for selection of best practices, and nominate possible best practice organizations.
- The Institute screens potential best practice organizations by conducting primary and secondary research to collect data on potential best practice organizations. The information is blinded and sent to participants.
- The participants then select from five to six organizations to site visit, and then design a questionnaire for site visits. Site visits are then conducted, with participants and the Institute staff
- Participants come together for a last meeting of both the sponsors and the best practice organizations for a final 'sharing session'. Each sponsor is invited to bring up to five persons with them [*sic*] to hear the final presentation and to network. The site visits reports and a list of key findings are presented.

By mid-1997 the Institute had completed two such studies (on institutional budgeting and creating electronic student services) and begun a third (on measuring institutional performance outcomes), with a total involvement of over fifty sponsoring higher education institutions, "none of which had done systematic benchmarking before".

Moreover, additional APQC higher education benchmarking planned to start in late 1997 included consortium studies on measuring learning outcomes, corporate universities, and resource reallocation, with further ones to be launched in 1998 on technology in teaching/learning, post-tenure review, capital projects planning, learning productivity, change management, strategic planning, student advising, and others. This ambitious Institute agenda is supplemented by plans to inaugurate in late 1997 a Knowledge Base of Education Best Practices (using the Clearinghouse's 'Process Classification Framework' to produce Internet-accessible abstracts of best practices from an international variety of data bases) and a Facilitator Network, involving part-time knowledge brokers in participating institutions who will observe, collect and codify best practices in their own organizations for forwarding to the Knowledge Base and will assist their faculty and administrators to improve by identifying and using best practices. These facilitators "will be specifically trained for their roles, will be linked electronically with one another, and will occasionally meet face to face".

With this emerging thrust into the domain of higher education by the APQC, one can anticipate a reduction in the sporadicness that currently characterizes the practice of benchmarking in American institutions. Such is not yet, however, the prospect for Canada's universities.

## Canada

Canadian institutions of higher education remain largely stalled at the performance indicator stage. While Canada's universities (individually and jointly) have long been involved in collecting and distributing management information for both internal decision making and external public reporting (mainly to governments), they paid little attention to performance indicators until the early 1990s when a flurry of interest was generated by two extraneous developments. The first was the introduction of annually published 'league tables' by the weekly Canadian news-magazine *Maclean's* (a *Time Magazine* clone) which sought, unsuccessfully at first, to emulate the university rankings issue of *US News and World Report*. When asked to collect and submit an immense field of data, the institutions were misled by the magazine into believing that it would not use them for composite ranking purposes; and when this was done anyway there was nationwide outrage from campus leaders who almost universally condemned the methodology by which the rankings were calculated. Consequently, following a boycott of the survey by about one-third of the country's universities from all regions (including every French-language institution in the province of Quebec), the magazine incorporated a number of improvements into its assumptions, methodology and presentation, and now a large majority of Canadian universities participate in this annual survey (but Francophone institutions remain under-represented), although several continue to do so under protest, and most have been left very nervous about performance indicators as a result of this unfortunate experience.

The second stimulator of interest was pressure applied by most provincial governments (which have constitutional jurisdiction over education in Canada) to obtain information on how well their universities were performing their missions; this demand emanated from governments' needs to reduce substantially their expenditures (all full universities in Canada are publicly supported) and it too resulted in nervousness among the institutions about performance indicators. (The province of Ontario, for example, has recently established an Education Quality and Accountability Office, but it has not yet turned its attention to the post-secondary level.)

Acting on this nervousness, the universities themselves sought to appropriate the initiative by developing their own sets of performance indicators. Their national organization, the Association of Universities and Colleges of Canada (AUCC), launched an annual report on institutional indicators but dropped the publication after two years when it became apparent that it was not accepted by the nation's readers as a viable alternative to the *Maclean's* survey. AUCC also established a Working Group on Performance Indicators to develop a national framework for the generation of performance indicators, but it too was discontinued when it became clear that the country's universities mistrusted the concept and would not contribute to or use the framework sufficiently to justify its continued development. Similarly, at the provincial level several initiatives to generate performance indicators have failed; the Council of Ontario Universities (COU), for example, established a task force to produce a

performance indicator reporting system, but it was stillborn because of lack of agreement among the institutions on what should be measured, how calculations should be done, and which interpretations of results should be reported (there was also some concern about the potential for 'cooking the books').

So thus far Canadian universities have managed to avoid participating in the collective public reporting of true performance indicators at both the national and provincial levels, although how long they will be able to withstand the continuing external pressure to do so is uncertain. Nevertheless, several institutions commonly generate such information individually and use it to improve internal management and for noncomparative public accountability. Further, the province of Alberta has recently imposed a reporting system in post-secondary education (including universities), but whether it will be extended beyond the comparative publication of management information remains to be seen.

This paucity of performance indicators renders benchmarking difficult, and there is very little of it occurring in Canada's universities. At the national level, the Canadian Association of University Business Officers (CAUBO, which is NACUBO's counterpart north of the border) took a tentative plunge in the mid-90's when it engaged consultants to undertake data-gathering projects with a view to identifying best practices (in the areas of payroll, purchasing, and mail services), but CAUBO's executive director (Maurice Cohen) and its 'benchmarking point man' (Duncan Watt, a Carleton University vice-president) were disappointed with the lack of progress achieved as a result of disseminating those reports so the venture was truncated. Cohen and Watt are skeptical of benchmarking in higher education. They believe that the amount of it going on in Canada is negligible and, further, that the usefulness of attempts to identify best practices is suspect because definitions of 'best' vary among institutions and the understanding of 'practices' requires contextual information at a level of richness that is impossible to capture in a national project. Thus, CAUBO will likely limit its future involvement in benchmarking to establishing a Web Page source of information on best practices discovered through the benchmarking efforts of other organizations and individual institutions.

Another national agency that has 'tested the waters' of higher education benchmarking is the Ottawa-based Conference Board of Canada, a consortium of major corporations that conducts high level professional development, economic projections, and policy research in the national interest. It has created several networks of organizations in the business, education, and healthcare sectors to foster quality improvements in their operations; a relatively recent addition to this roster is the Quality Network of Universities, which is coordinated by a senior research associate at the Board (Judith Gibson). This Network, consisting of about a dozen universities from across the country, works through three levels of university personnel presidents, vice-presidents, and administrators responsible for on-campus continuous quality improvement programs. In 1996 Gibson arranged a seminar on benchmarking for the vice-presidents' group and found little evidence of the practice except in association with the occasional

business process redesign effort at a couple of institutions; those present chose not to pursue the proposal that they link up with a pilot project on benchmarking being launched that year by the Academic Quality Consortium in the United States. Subsequently, a session on benchmarking was held at a meeting of the third group of Network participants, but no further action has emerged from that initiative either.

With respect to Canadian participation in international benchmarking endeavours there is, again, little to report. The author, as Canada's representative of the Commonwealth Higher Education Management Service (CHEMS), worked hard to recruit Canadian universities into membership in the 1996-97 iteration of the CHEMS Benchmarking Club (discussed elsewhere in this Report) but succeeded with only one, The University of Calgary. And at least two of Canada's higher education institutions (the Universities of Alberta and Toronto) participated in the NACUBO program in the mid-90s, but both have since dropped out because they did not find that the results justified the costs in time, money, and other resources. It is clear that centrally-structured, externally-coordinated, inter-institutional benchmarking endeavours have not found favour in Canadian universities. Whether or not the new APQC thrust into higher education will have any impact in Canada remains to be seen.

Cohen of CAUBO suspects, nevertheless, that considerable unreported benchmarking activity (often not so-called) is going on in individual Canadian institutions of higher education. Some professional specialist groups (such as physical plant, ancillary services, and healthcare human resources) pay close attention to what passes for benchmarking by their American counterpart associations, and an unknown number of business process redesign projects at particular universities undoubtedly make some use of benchmarking methodology (sometimes without being conscious of doing so).

A good example of the latter is at Canada's largest higher education institution, the University of Toronto, where the assistant vice-president responsible for planning (Daniel Lang) reported on three levels of relevant activity. First, the set of core indicators that had been developed by a Council of Ontario Universities task force, and then rejected by Ontario institutions for use at the provincial level, was nevertheless adopted by the University of Toronto's Governing Council, and management has reported annually to its Governors since 1994 using this framework. Secondly, as noted previously, Toronto participated in the NACUBO program; it dropped out after two years for cost-effectiveness reasons (including huge sets of non-comparable data in such areas as student services and admissions), but it did gain some value from information on changing practices (as in accounting for fund-raising) and on certain specialty areas (such as physical plant). Third, as one of two Canadian members of the Association of American Universities (AAU)--the other is McGill, in Montreal--Toronto participates in its American Universities Data Exchange (AUDE). The University of Toronto has designed a methodology for determining which AAU members are its peer institutions based on such factors as size and program spread, and so it selects a function in which it is particularly interested (eg, time to graduation) and then identifies the best performance on it from among its peer institutions using AUDE data as a benchmark.

The Governing Council is informed of where Toronto ranks among its peer institutions on the selected variable, and the information is also used to identify instances of internal divergence.

Finally, the relevant Toronto managers occasionally visit the benchmarked institution to examine the practices which led to its superior performance, and then return to enhance enabling factors and reduce inhibiting ones so that the identified best practices can be adapted and implemented within the University of Toronto context; this approach has recently proved successful, for example, in the area of allocating indirect costs. It is significant to note that these three levels of relevant activity represent a progression from performance indicators through benchmarks to benchmarking, as defined at the beginning of this Chapter. It is also interesting that The University of Western Ontario and certain faculties within the Universities of Alberta and British Columbia are now benchmarking against Toronto's AUDE benchmarking.

One can observe, then, that to the extent that true benchmarking is occurring in Canadian higher education it relies largely on American data, it is individualized by institution, and it is self-selective in determining specific processes to benchmark. It tends to be *ad hoc* in nature, informal in approach, and 'grass roots' in generation. It also appears to be concentrated in the larger universities, those with the resources to afford a professional planning or institutional research unit.

## **Conclusion**

In summary, it can be concluded first that what is frequently called 'benchmarking' in North American higher education really is not true benchmarking; it is typically the systematic generation of management information that can produce performance indicators and may lead to the identification of benchmarks, but it does not often extend to benchmarking by identifying best practices and adapting them to achieve continuous improvement in one's own institutional context, and even when it does, it seldom goes 'outside the box' of one's peer organizations. Secondly, this so-called 'benchmarking' is much more common in the United States than in Canada; while it has both detractors and advocates in the former, the skepticism toward such endeavours (including the use of performance indicators) is so widespread among Canadian universities that (unlike many American initiatives) it will probably never 'catch on' north of the border. Finally, true higher education benchmarking is nevertheless being undertaken in both countries but it remains largely invisible to 'outsiders', highly individualized among institutions, and narrowly selective in scope. It focuses on the adjustment of processes to improve outcomes, using data that are both quantitative and qualitative; it is an entirely voluntary, mainly private, and natural management activity; and it may be quite personal, unstructured, and idiosyncratic. Those that do engage in it can derive some benefit from the large data-generating operations, especially when efforts are made (as by NACUBO) to standardize and validate the information produced.

Concerning the future, it is probable that the practice of benchmarking in North American universities will remain sporadic and that progress will continue to be halting. Nevertheless, it will likely grow (especially in the US) as the success stories of its fugitive and episodic application get told, as cynicism toward it subsides, and as competence in conducting it increases. It is also predictable that the new APQC thrust into higher education will have a stimulative impact, particularly in expansion 'outside the box'. It would be premature to conclude that benchmarking in North American universities is a passing fad: it is not common enough yet to be called a fad and, because of its value when done properly, it will not soon pass. Rather, it will continue to evolve, gradually and unevenly, in the foreseeable future much as it has done during the 1990's.

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## **CHAPTER 4: BENCHMARKING IN AUSTRALIAN HIGHER EDUCATION**

*Dr Vin Massaro*

### **Introduction**

Australia is a federation of States and, with one exception - the Australian National University - its universities are established by Acts of State Parliaments. The higher education system consists of thirty-seven universities which form the Unified National System and two Colleges which are funded by the Commonwealth (federal) government but are not part of the UNS. All universities forming part of the UNS are funded by the federal government, although some States provide significant additional funding to promote activities which are of interest to the State's economic or educational aspirations. There are also two private universities. The other tier of tertiary education is the Vocational Education and Training sector, which is State based and funded through State and Federal governments. Universities are largely autonomous institutions, although they are required to comply with State and Federal legislation as a condition of their funding. At the operational level, however, they have complete autonomy.

The question of benchmarking has become more prominent in Australian higher education as the government has introduced quality assessment and as funding for higher education has diminished. In the first case, it became important for universities to develop reference points to demonstrate their comparative quality, and in the second it became important to establish that the costs of providing university services were comparable with universities of a similar kind and that their provision was costing as little as possible. While benchmarking in Australian higher education contains examples of both national and international comparisons, the international are favoured because there are comparatively few groups of similar universities in Australia with which to make useful comparisons. There are no significant examples of universities using benchmarking to compare their academic activities with those in similar institutions in Australia or overseas. The international alliance of universities under the banner of 'Universitas 21' aims to use the alliance to compare standards and quality within the group but there has been no time to begin such projects because of the relative youth of the organisation. The group is sufficiently small and widespread internationally, as well as being made up of comparable institutions, to make such an exercise possible.

Benchmarking has been conducted by universities themselves and by consulting firms either because they have been engaged by universities or because they have offered their services to assist universities in improving management practices. The term is used fairly loosely to cover qualitative comparisons, statistical comparisons with some

qualitative assessment of what the statistics mean, and the simple generation of statistical data from a variety of sources which are then published as tables with no attempt at interpretation. In the last of these local assessments are made to demonstrate that particular services are more or less expensive than comparable ones elsewhere, but as there is no benchmark as such, it is difficult to derive any conclusions.

Benchmarking is not something which has been taken up by the funding authorities and to the extent that any activity occurs, it is based on voluntary associations for mutual benefit or it is conducted by individual institutions as part of broader management reviews.

### **Benchmarking Activities in Australia**

The full extent of benchmarking activities in Australian higher education is not easy to discern because not all are in the public domain. This paper therefore attempts to summarise those activities which are in the public domain.

### **NACUBO**

The National Association of College and University Business Officers of the United States launched a benchmarking project in 1991 and has now completed its fourth cycle (see Chapter 3). Australian universities and Vocational Education and Training institutions have been able to participate in the project since 1995. The number of participants has been small and has varied from year to year, the 1997 figure being between seven and ten, with no participation from the VET sector. The Australian project is being co-ordinated and managed by Coopers & Lybrand. Reluctance to participate in the project has been due to the size of the task and the staff commitment associated with it, as well as a concern that the information may not be as comparable as might be desired due to its US origins. The participation fee is relatively small at AUD\$15,000 per annum, although it is likely to increase. The fact that participants have not retained a continuing commitment or participated in the same suite of activities has meant that there has rarely been a sufficient number of similar institutions participating to gain the benefits of local comparison. Equally this same lack of continuity has led to others being less certain about committing themselves.

The principal benefits claimed for the NACUBO project are that it will provide:

- an objective basis for improved operational performance measurement;
- a tool for change within an institution;
- a 'pointer' to the best practices of others;
- a means to bring about change quickly;
- a vehicle for dramatic innovation.

The longer term objectives of the NACUBO project are to identify major work processes across an institution, to assist managers in mapping activities contained in the

processes, to measure the effectiveness and cost of activities within processes, and to apply re-engineering techniques to identify more effective means of completing those processes.

The focus of the project is action rather than simply analysis. The data collection requires significant time and effort to complete, but it is only the cornerstone for what should follow. The real benefits of the project are realised by using the benchmarking and/or process costing results to improve operations and manage costs. NACUBO claims that the project has been built around the principle of continuous improvement.

In the US NACUBO offers a core list of 26 functional areas, a supplementary list containing a further 12, and a process costing list of 6 processes. In the first year, Australian institutions were offered:

- Functional benchmark assessment for 14 functional areas; and
- Process costing for 3 process costing areas.

Institutions can choose to participate in all or a selected number of processes.

For functional benchmarking, NACUBO offered Australian institutions the assessment of 14 core functions :

- Accounts Payable
- Human Resources - General
- Admissions
- Information Technology/Telecommunications
- Alumni Relations
- Payroll
- Central Budget Department
- Purchasing
- Development Office
- Registration and Records
- Facilities
- Student Health Services
- General Accounting
- Overall Indicators and Ratios.

The functional benchmarking activities include participation in data-collection workshops designed to increase institutions' understanding of benchmarking, to assist institutions in interpreting data definitions in common, and to help institutions organise the process of data collection and survey completion. The post-data-collection workshops assist institutions to understand how to analyse benchmarking results, how to research best practices, and how to apply the tools and techniques of business process redesign to higher education. Participants also receive a final report on the project and data diskettes containing the benchmark data tables, the raw data elements, and the

calculated benchmarks. Participation includes access to NACUBO Net, NACUBO's electronic bulletin board.

The process-costing component included the collection of activity and cost data for the following three processes: processing a purchase requisition; processing an invoice; and hiring an employee.

### ***Reactions to NACUBO Benchmarking***

NACUBO is perceived to have developed a thorough package, with its value enhanced by having been created for the higher education sector rather than being transferred from another industry. It is seen to provide a breadth of information at a comparatively moderate cost.

However, association with the project has been less than positive. Some of the reasons have already been mentioned at the beginning of this section. Criticisms relate to the short time available to produce the quite extensive sets of data in the first instance, although this has been modified in subsequent collections. More important was the lack of 'Australianisation' of the material before it was launched. This was a serious issue because it involved terminology and assumptions inherent in the product and cannot be solved by the simple translation of terms. As a result their resolution is time-consuming and the result may not be as comparable as might be expected. Examples include the use of US dollars as unit cost measures and the use of imperial measures. The lack of a data element dictionary which would enable institutions to produce data directly from the data base used to report to the Australian funding authorities was also seen to be a deficiency. Another issue related to the need to recreate institutions in the image generated by NACUBO to produce reliable results. Again, while this only needs to be done once, it appears to have created difficulties and caused some institutions to reconsider their participation.

A lesson to be learned from this experience is that benchmarking needs to involve people who know universities from the inside, and this is especially so when any attempt is made to localise a foreign product. The inability of the project to maintain a constant level of participation has not assisted it to develop a firm model. The same lack of continuity will affect the usefulness of the data collected because there is a need to maintain some historical perspective in any proper benchmarking exercise.

### **Student Administration Benchmarking Project**

Ernst & Young completed a Student Administration Benchmarking Study in 1996, based on 1995 data for examinations, enrollments, results processing and graduations in seven participating universities. The universities were self-selecting and there was no compulsion to participate. Universities were able to use the resulting information in whatever way they felt appropriate, and all have used it to varying degrees to improve their processes. The objectives of the project were to:

- identify best practice amongst the participating universities;
- identify appropriate key performance indicators within each of the targeted processes;
- facilitate understanding of the cost base associated with each process;
- identify improvement opportunities within each university;
- ensure adequate transfer of benchmarking skills to university participants.

The approach taken was to use a base line for each process based on current practice at the University of New South Wales to establish key sub-processes, the boundaries of each process and the key performance indicators for each sub-process.

Some of the difficulties encountered related to the comparability of data, both in terms of the costs involved for each of the processes and the definition of the processes. Some universities provided information on a faculty basis and extrapolated global figures from these, while others provided actual costs from a whole university perspective. It was also felt that the study involved too few processes to provide meaningful results.

The project sought to identify best practice in each of the processes, to describe these and to make recommendations on what improvements might be made. There was a follow-up meeting of the participants to report on progress. In the area of enrolments, Ernst & Young used a common survey to gauge student satisfaction. This seemed to be well-structured and the results were regarded as helpful by the universities. However one institution did not participate in the survey, choosing instead to conduct its own.

An inconsistency in the process was that the university regarded as demonstrating best practice through the student satisfaction survey was not the one which had the lowest costs per student for the process. To an outsider, the cost differentials should have raised questions about the accuracy and comparability of the data, because they were too divergent (half the average cost). Not only was this not done, but the recommendations were biased in favour of the system which appeared to have lower unit costs as against the one which was producing most satisfied customers. In general terms the project emphasises unit cost as the major criterion for best practice, to an extent which is not warranted by processes which affect students in the most direct way.

The project led to the identification or formulation of questions which then enabled the relevant administrative area to examine its activities and to improve them where necessary. The analysis of the sub-processes and their impact on the process in question, as well as the resulting recommendations on improvements, were very detailed and provided managers with a clear pathway for problem solving. Irrespective of best practice issues, the details of this analysis appear to be a very effective means of highlighting the issues which need to be addressed. A further advantage of the project was to raise issues and provide the information necessary to persuade internal authorities to support change and improvements. It enabled some processes to be re-engineered to reflect better practices in other institutions and to reduce costs. There seems to be no doubt that learning about each other's systems was of great value; as was

the development of relationships between staff working in the same area who are now able to contact each other for advice.

Some of the concerns expressed about this approach are that it was not as accurate as activity based analysis and that it relied too heavily on baseline information which did not have any apparent intrinsic validity. It was limited in the scope of the information it produced by the fact that the group was small and the comparisons were within the group rather than with a larger group of institutions, or a 'gold standard', which might have generated more possibilities for improvement. In a sense it was a limited benchmarking exercise and appears not to have had other elements of good benchmarking involving the introduction of continuous measurement and improvement.

### **Boston Consulting**

The Boston Consulting Group has been engaged by a number of universities to undertake management reviews. While the details of these projects are not publicly available, it is worth describing the methodology here because it uses benchmarking as a tool to solve institutional problems. The company approaches its management reviews by developing a considerable set of factual information to support its subsequent analytical work. The approach tends to concentrate on an in-depth analysis of a selected group of activities which can then be used to inform general conclusions. In doing this, the company uses standard activity based analysis and a mapping of the activities undertaken. Examples of good practice in other organisations or within the same organisation are then identified so that comparisons can be made and advice for improvement can be given.

The approach is regarded by its customers to be effective because it goes beyond measurement and reporting to suggest best practice solutions. There is also a direct connection between the collection and analysis of the data and the provision of advice. Discussions with customers indicate that the approach is far more relevant to the organisation and more strategically focused. The problem raised about other benchmarking exercises, that there is insufficient knowledge of the institution by those making the study, is somewhat reduced through this approach because it relies on a longer-term involvement in the institution and an in-depth study of the areas under review. The main concern is the expense involved in not being able to share the services with other institutions.

### **Australasian Association of Higher Education Facilities Officers (AAPPA)**

This benchmark survey has been conducted annually for some years and now covers 36 institutions in Australia and New Zealand. The survey concentrates on university facilities and services. To ensure that the information is comparable, the survey provides precise definitions of the terms used in the collection of data and to that extent it is regarded as accurate.

It is debatable whether this is a true benchmarking exercise because the survey confines itself to reporting statistical information across a large number of fields without attempting to make any value judgments about it. This is done over 84 columns of information in eight tables. The functions and processes which are the subject of the information are not described, nor is there any attempt to imply that particular functions are carried out more efficiently or effectively in some than they are in others. While the organisation has previously reported separately on its views about space norms or the most appropriate formulae for calculating the cost of depreciation and replacement, those conclusions are not used to amplify the information contained in the benchmark survey.

The 1996 Benchmark Survey uses the 1995 calendar year as the reporting period. The tables provide the following information:

- a) Contextual or general statistical data - for each institution its total gross and useable floor area and the ratio of gross to useable; total asset replacement value; the number of students and the number of staff.
- b) Maintenance costs - including staff, materials and contracts costs.
- c) Refurbishments - including staff salaries, materials, contracts and consultant costs.
- d) Backlog Maintenance and Other Outstanding or Deferred Works - broken down by statutory and non-statutory work, health and safety, disabled access, and heritage or other special requirements. The results are expressed in dollars.
- e) Cleaning - including staff, materials and contract costs and total m<sup>2</sup> cleaned.
- f) Energy Consumption - including consumption amounts, the costs involved and the total m<sup>2</sup> covered.
- g) Grounds Maintenance - including staff, materials and contract costs and total hectares maintained.
- h) Security - including staff, materials and contract costs and total m<sup>2</sup> patrolled.
- i) Parking - including staff and operating costs and the income derived from fines as well as the cost of collecting fines or waiving them.
- j) Telephones - including staff, materials, contract and call costs.

Under two tables labeled 'Performance Indicators', the information contained in the earlier tables is then provided in aggregated averages - m<sup>2</sup> per student, the replacement cost of facilities, the condition of the facilities, expressed in terms of a Facilities Condition Index, the cost of maintenance per m<sup>2</sup> and as a percentage of capital

replacement value, the total backlog liability, and similar calculations for the other categories of information.

As suggested earlier this falls within the definition of a statistical collection rather than benchmarking, although the data could be used to derive benchmarks if it were analysed and given agreed values. The fact that under the performance indicators for telephones it reports that some institutions have expenditure per staff almost double that found in other institutions allows one to identify problem areas (or to identify institutions in remote communities), but it does not help to devise a benchmark or a performance indicator for telephone expenditure. Nevertheless the information is valuable for comparative assessments, especially if the discrepancies which it highlights for an activity in an institution lead that institution to examine the process in more detail. This is quite a common use of the information, so that the exercise does have a direct impact on the management of facilities.

### **Northern Territory University Library**

This project was designed to identify best practice in research information services. The project aimed:

- to achieve continuous improvement in the quality, effectiveness and cost efficiency of research information delivery at the Northern Territory University and to business and government in North Australia; and
- to establish the Northern Territory Library as an international exemplar of best practice in innovative delivery of research information services.

While the project was aimed at a broader outcome, it nevertheless used benchmarking as one of its processes, finding it the most difficult component of the project because of the lack of benchmarking activity in university libraries. The Library therefore chose one of its branches to conduct the first benchmarking exercise, based on eight other libraries in Australia. This had the advantage of focusing on a particular set of processes which are common to all libraries thus making comparisons easier. The benchmarking exercise has yet to be completed, so this paper cannot provide a report. A further comparative study was undertaken of US libraries and this led to the changing of processes within the library to make them more effective.

The Council of Australian University Librarians has also been working on benchmarking through the development of key performance indicators for university libraries. It is suggested that key performance indicators can be divided into six broad categories, incorporating general library use and facilities, collection quality, catalogue quality, availability of items in the collection, reference service, and user satisfaction. These broad categories then have some 22 sub-categories. Work on benchmarking and comparative data gathering is in the initial stages, but the group has developed a common set of measures to simplify the task.

## **University of Melbourne Counselling Service**

The University of Melbourne Counselling Service undertook an international benchmarking project during 1996 with the objective of comparing the Service with tertiary counselling services in the United States and Canada. The project did not select a specific group of universities with which to make the comparisons, using instead a comparison with a broad range of activities in like organisations based on information from two comprehensive data bases produced by the Directors of Centres in the US and Canada.

The data banks used were extensive, with the Maryland Survey having collected annual survey data since 1966, from 223 counselling services in 43 US States. The second data base was from the Pittsburgh Survey, conducted annually since 1981 and covering 321 counselling services across 47 US States, the District of Columbia and six Canadian provinces. As might be expected, there is some considerable overlap between the two surveys. The satisfaction surveys were conducted in three institutions, although the Melbourne Service had two of its own surveys to use.

The Service was able to establish that it served a larger constituency than most of its overseas counterparts and that it was doing so with fewer staff, with counsellor:student ratios of 1:2700 as compared to 1:2300 in the international centres. It also established that it deals more clients, sees them less often, but refers more of its clients to external resource centres than comparable services. The study therefore enabled the Service to measure itself against its peers although the authors make it clear that the focus was not on precise comparisons, but on diagnosis, and to raise issues for further investigation as a result of seeing what was being done elsewhere. It had the effect of broadening the perspective of staff on what counselling should be doing, but the authors are keen to emphasise that the exercise had a process focus rather than one based on specific outcomes.

This approach to benchmarking would seem to be very effective because it seems to have been relatively inexpensive while providing significant levels of comparative information to guide management decision-making. It had the advantage of being focused on a very precise set of processes, so that even when the authors complain about the lack of comparability in certain areas, these are relatively few and the problem can be overcome without affecting the accuracy or usefulness of the whole.

## **Conclusions**

The Australian experience of benchmarking is limited and confined to individual initiatives. From the experience of benchmarking described here, it would seem that generic benchmarking projects are less successful than those which are focused on the resolution of a particular problem, and which use benchmarking as a tool to solve the problem. Generic projects will always lack the overall commitment of staff because their immediate concerns are not visibly going to be addressed yet they are required to

take on a significant new workload to make the exercise happen. As with many activities of this kind in any organisation, what is not mainstream is regarded as specialised and therefore someone else's concern. Those undertaking the benchmarking project are seen as the main beneficiaries of the outcome and there is a lack of collective responsibility. As the project is something which belongs in a specialist area that area is assumed to be responsible for benchmarking, and no one else takes it as a personal or professional responsibility. This has occurred with a range of other initiatives, such as quality assurance, equal opportunity, indigenous education, and so on, where special units have been established to deal with the issue. There is a feeling that the rest of the organisation is absolved from any further responsibility.

If benchmarking (or quality assurance) is to work it must be seen as part of the mainstream and core business of the institution, with all staff having a commitment to it. As is apparent from the cases described in this report, benchmarking appears to work best when it is conducted by an internal group to assist it in resolving a management problem or to position itself in its field of expertise. The more focused ones were able to overcome problems arising from the cultural or definitional differences implied in the comparisons because they were being interpreted by professionals within the field rather than external consultants with little knowledge of the details of the systems they were measuring. Even in the case of the AAPPA survey; while it is merely a book of lists, the information is collected by insiders for insiders so that the variations are more likely to be interpreted in their proper contexts. The benchmarking exercise is used as a tool rather than as an end in itself and has more likelihood of producing useful results. Furthermore, working on an area basis, it will be more feasible to ensure that the comparators are accurate and represent examples of best practice in that particular area of activity. The use of external consultants would also seem to work best under these conditions because the assumptions underlying the project are more likely to be accurate. The external input, however, has the advantage of raising issues which might not appear evident to an internal group.

From an institutional perspective, it might be better to have a multiplicity of benchmarking exercises occurring as part of management's overall aim to achieve improvements rather than conduct broad, institutional benchmarking exercises which are less likely to excite the interest of staff as a whole. This approach imposes a measure of responsibility on the central management to ensure that the parts go to produce a better whole; on the other hand, success in a good proportion of attempts is more likely to achieve a desirable outcome than attempting an organisational level exercise and not being able to bring it to a successful conclusion. It follows from this that management should require each broad area of the university to engage in a process of regular review, using benchmarking as a tool to demonstrate that the area in question is either performing at best practice levels or is aiming to do so, based on comparisons with appropriate similar areas in other organisations.

The other issue which these benchmarking exercises have raised for this author is one affecting all performance indicators and benchmarking exercises - they will not work if

they are conducted and interpreted by governments or others who are outside the system. They might be urged on institutions as effective means to ensure that they are engaged in a process of continuous improvement, and institutions might be asked to demonstrate what they have done, how they have done it and what lessons they have learnt, but external agencies should not be in the position of interpreting the results. The main reason for this is that the information cannot be collected to that level of precision, simply because we are not judging exactly similar products.

The most apparent use of benchmarking in Australian universities is in the promotion of efficiency and effectiveness in their operations. This is largely due to the fact that there is no external force imposing the need for measurement against peers or against objective criteria. The single most important external influence relates to the reduction in funding, so that the emphasis is on avenues for reducing costs while maintaining services. This leads both to an examination of processes, in some cases through benchmarking, and an examination of the quality of the service to ensure that re-engineering does not impact adversely on the services being provided. While the recent three rounds of quality assessment generated a limited amount of benchmarking, this does not appear to have survived beyond that process. The new quality assurance system requires universities to demonstrate what they are doing to assure quality and some have begun to develop performance indicators, but there is little evidence of academic benchmarking taking place. To the extent that benchmarking is occurring, it is essentially for internal purposes and cannot be defined as part of a conscious strategy for overall quality improvement, although there are one or two exceptions in which there is an on-going quality assurance programme which includes the occasional use of benchmarking.

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## CHAPTER 5: BENCHMARKING IN UK HIGHER EDUCATION

*Dr Helen Lund*

### **The Background to Benchmarking: Performance Assessment in UK Higher Education 1985-97**

Benchmarking as a quality assurance tool in UK higher education came to the forefront in July 1997 when the Report of the National Committee of Inquiry into Higher Education (the Dearing Committee) included the suggestion that the early work of the newly-established Quality Assurance Agency should include "work with institutions to establish small expert teams to provide benchmark information on standards, in particular threshold standards, operating within the framework of qualifications, and completing the task by 2000"<sup>i</sup> The Committee's discussion of university governance likewise called on each governing body to "systematically review, at least once every five years, with appropriate external assistance and benchmarks: its own effectiveness..., the arrangements for discharging its obligations to the institution's external constituencies; all major aspects of the institution's performance..."<sup>iii</sup>

Though the Report set the Dearing seal of approval on benchmarking, these recommendations do not represent a complete innovation for UK higher education. Rather they can be seen as the culmination of a series of policies which aimed, from the mid-1980s, in a context of increased financial constraint and demands for greater accountability, to encourage UK institutions to measure their own achievements against agreed 'performance indicators'. These have been defined as "a numerical value used to measure something which is difficult to quantify", and are to be distinguished from simple management statistics, in that they "imply a point of reference, for example a standard...or a comparator".<sup>iii</sup>

In 1985 the Jarratt Report, which recommended, above all, that universities must work to clear objectives and achieve value for money, advocated the development by the Committee of Vice-Chancellors and Principals (CVCP) and the then UGC of performance indicators for use in universities, with the stipulation that these should be indicators which were calculable and useable by managers. In 1987, the CVCP and UGC published *University Management Statistics and Performance Indicators in the UK*, comprising 39 sets of comparative data and performance indicators, relating to universities only. With its second edition, *UMS&PI* increased the number of performance indicators to 54; the publication was then produced annually until 1995.

Also in 1987, encouraged by the findings of the Government White Paper, which judged that in two key areas the polytechnic sector had achieved superior performance to that of universities (the increase of student numbers and reduction in the unit of resource), the Polytechnics and Colleges Funding Council (PCFC) set up the Morris Committee, which focused on performance indicators at both sectoral and institutional level. In 1990 the

Committee recommended the publication of four sets of macro performance indicators, relevant to national aims and objectives.

1992, with the abolition of the binary divide between universities and polytechnics, saw the creation of three Higher Education Funding Councils, for England (HEFCE), Scotland (SHEFC) and Wales (HEFCW) in place of the PCFC and Universities Funding Council (UFC), which had itself replaced the UGC. Responsibility for developing and publishing information on performance indicators now rested with the Councils' Joint Performance Indicators' Working Group (JPIWG). Two other bodies established in that year, were the Higher Education Statistics Agency (HESA), to be "the unified data collection agency for HE", and the Higher Education Quality Council (HEQC); while universities would retain control of quality assurance and quality enhancement, they would do so under its aegis.

In 1995, JPIWG was replaced by the new Higher Education Management Statistics Group (HEMS), its function being "to devise and recommend for publication, in consultation for the sector, management statistics for higher education"<sup>iv</sup> derived from data published by the Higher Education Statistics Agency (HESA). Despite Government pressure to publish material which could be treated as performance indicators, HEMS does not currently generate 'outcome oriented data' because of the "very formidable ...obstacles in the way of doing this meaningfully on the same basis for the entire sector. Work is, however, proceeding in the HEMS Technical Sub-Group to see if these obstacles can be overcome."<sup>v</sup> With the creation of HEMS, *UMS&PI* was effectively wound down. In the same year, HEFCE joined forces with HEQC to work on plans for the setting up of the Quality Assurance Agency, finally established on 1 August 1997.

### **Benchmarking Activities in UK Universities**

Information for this review was sought initially from national bodies: the CVCP and the Standing Conference of Principals (SCOP); five associations of university officers (administration, finance, estates, academic registrars, personnel); and from management consultancy firms. The Higher Education Funding Councils were also contacted for information on their Value for Money Studies.

Generally, apart from HEFCE, the response was disappointing; neither CVCP nor the Association of Heads of University Administration (AHUA) held centrally any information on benchmarking projects. Subsequently, therefore, individual telephone enquiries were made to approximately 60 per cent of UK universities, approaching the registry (academic administration) in the first instance. Information on the projects discussed below was mostly gained in this way, with some use of the internet and secondary literature. This review does not claim in any way to be comprehensive, and CHEMS would be interested to hear of any other projects recently completed or underway.

From the response to telephone enquiry, awareness of 'benchmarking' and familiarity with the concept within the university administration is by no means consistent across

the sector. In some institutions there was immediate recognition and referral to the benchmarking champion(s) within the institution; in others the term needed further explanation, even at the level of senior administrators.

Attitudes to benchmarking groups or 'clubs' varied; for example, the University of Central Lancashire has run its own 3-6 month Value for Money Studies for the last five years (focusing on travel and transport; recruitment advertising; security devices; treasury management), and using methodology based on that of the Audit Commission and National Audit Office. The institution prefers, however, to benchmark its own performance against publicly available information (statistics provided by local government, and the national health service as well as HESA) rather than through visits to other institutions on the grounds of cost-effectiveness. Specific and general benefits have, nonetheless, accrued: Mike Milne-Picken, Head of Planning, reported that a small study on organising mailshots to students resulted in savings of thousands of pounds. Reporting of the studies' findings up through management to the University Board have also led to improved understanding of cost-effectiveness among management personnel. The University also regards its annual 'Student Satisfaction Survey' as a fruitful source of information on which to base performance analysis. Similar surveys are conducted by the University of Central England at Birmingham and by Liverpool John Moores University, and planning staff do compare their findings on an informal basis.

There appears to be some evidence that universities may be deterred from benchmarking projects by the difficulties and costs incurred (in time and money) even in mapping their own processes. At one institution, a potentially interesting project to establish performance indicators in the areas of registry data collection and record keeping; student accommodation, portering, security, reception; and maintenance within the estates department had been curtailed after 4-5 months as too time-consuming, though the Registrar expressed interest in trying again once resources allowed. In the area of estates maintenance, however, he considered it more profitable to compare performance against commercial data sources, rather than benchmarking with other institutions. For other institutions, mapping internal processes is seen as a preliminary to benchmarking proper; at the University of Glasgow, for instance, the system of registering students and of managing a student's record throughout the time of study at the University is under scrutiny, with the hope of benchmarking with other institutions in and outside higher education in the future.

Universities' responses to benchmarking invitations are likely to be informed more by pragmatic than philosophical considerations; the timing of a request, so as not to coincide with a particular division's busiest period, is crucial. It helps if questionnaires associated with data collection are clear and not too long; in one respondent's view, however, a questionnaire alone, in year one, at least, is not sufficient for a good benchmarking exercise. There must be follow-up visits. Another respondent implied a greater readiness to participate if the invitation came directly from another institution, rather than from a management consultancy firm.

## **The Times 'Good University Guide'**

A major deterrent to benchmarking, mentioned by many respondents, is the perceived difficulty of obtaining a genuine comparison of 'like with like'; for this reason, given the variegated nature of the sector in the UK, many HE practitioners and commentators are hostile to the idea of 'league tables' of universities.<sup>vi</sup>

The one UK publication aimed at prospective students which not only profiles universities but ranks them in a league table is the *Times Good University Guide*<sup>vii</sup>, first published in 1993. It draws on statistics produced by HESA (staff/student ratios; graduate destinations<sup>viii</sup>; student accommodation); the Funding Councils (teaching assessment and research assessment); UCAS (points required for entry); the Standing Conference of National and University Libraries (SCONUL) (library expenditure); and the universities themselves (proportion of students gaining first or upper second class degrees).

For each of these eight areas, the top-rated university gets 100 points and thus serves as a benchmark for all the others, which get a proportion of this based on their unadjusted scores. A total score out of 1000 is achieved by the fact that (in 1997) two of the indicators are weighted (teaching at 2.5 and research at 1.5); this score is used to give the university its overall rating.

Despite the Guide's claim "to allow potential students to make their own judgements", it is not generally well-regarded in the higher education sector. Harvey and Knight, discussing the idea that publication of TQM outcomes is in the interest of accountability and of benefit to 'external stakeholders', suggest that realistically students only encounter "selectively quoted" information from TQM reports and "those parts taken out of context and used to construct league tables...or good university guides"; while "this repackaging makes it more accessible, it is often fraught with dangers of interpretation and usually devoid of 'health warnings'".<sup>ix</sup> To be fair to the *Times* publication, the opening chapter does give some explanation as to how the rankings are compiled and where the methodology might work against institutions in certain categories, but whether this section is actually carefully read by many potential students or their parents is debatable.

## **Benchmarking Academic Practice: Teaching, Learning and Assessment**

The Dearing Report put considerable emphasis on the immediate need for higher education institutions to "give high priority to developing and implementing learning and teaching strategies which focus on the promotion of students' learning". It also proposed the immediate establishment of a "professional Institute for Learning and Teaching in Higher Education", whose functions would include the commissioning of research and development in learning and teaching practices and the stimulation of innovation.<sup>x</sup>

The concerns of the Report can be seen as shared, and its findings even anticipated, in the 40 or so projects gathered under the umbrella of the Fund for the Development of Teaching and Learning (FDTL) funded by HEFCE and the Department of Education for Northern Ireland (DENI). Two of these, which may be characterised as benchmarking initiatives, given their emphasis on examination of shared experience with the aim of promoting and disseminating good practice, deal with the teaching and assessment, respectively, of history and sociology.

Paul Hyland, Head of the School of Historical and Cultural Studies, at Bath College of Higher Education is leading the History 2000 project<sup>1</sup>, which has been designed to “promote knowledge and discussion of existing good practices in the discipline”; to enable “tutors and departments, individually and collaboratively...to employ some of the tools of educational research... to investigate the merits of their current practice”; and to “guide and fund the development of good practices and initiatives by groups of tutors, whole departments or consortia who have a proven record or strong prospect of improving the quality of student learning”. In the belief that “all departments can offer some evidence of good practice”, all tutors and departments are invited to participate. The project will focus on all aspects of course design, teaching, assessment, evaluation, student support, etc, with the main emphasis on undergraduate history courses and programmes.

Over the next two years, the project managers will be visiting as many interested institutions as possible, either to gather and share information, ideas and problems in a "relatively informal" way; or to hold seminars or workshops on specific topics. It is emphasised that on these visits the role of the visitors is that of colleagues, not authorities or assessors. Departments will be kept informed of progress on the project via regular newsletters; a seminar programme has already begun, and £100,000 has been set aside from project funds to "support the development of particular good practices and innovations throughout the country". At the close of the project in 1999, there will be a two-day conference on 'Good Practice, Innovation and Critical Reflection in History Teaching'. Other outcomes of the project will be a published collection of essays on good practices, innovations and the research findings of the group projects and an electronic database of contacts and expertise.

FDTL funding is only available to those institutions which gain a high score in the previous year's HEFCE teaching assessment. Bath College of Higher Education, whose sociology courses include a modular option, received funding (£180,000 over two years) to run a project, beginning in September 1997, involving seven or eight institutions (mostly post-1992 universities from across the UK). The focus of the study is on standards and assessment; how changes in assessment regimes are affecting student performance; the comparability of student performance across different courses which

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<sup>1</sup> For further information, contact Paul Hyland or Nicky Wilson at the School of Historical and Cultural Studies, Bath CHE, Newton Park, Newton St Loe, Bath, England BA2 9BN. Tel.: +44 (0)1225 75503. By e-mail: [history-2000@bathhe.ac.uk](mailto:history-2000@bathhe.ac.uk). The project has its own Website at <http://www.bathhe.ac.uk/history2000/index.html>

are assessed in different ways; achievement of key skills - what must/ought/should a sociology graduate be able to do on leaving university? The different institutions will experiment with new ways of assessment, eg the use of IT in assessment, assessment of projects/field work, etc, and participants will exchange views through 20 one day workshops held at different institutions in 1998. It is hoped that the study will raise the profile of assessment and that the outcomes of the project will feed into national practice.

The Bath CHE study links into a series of relatively small-scale benchmarking projects run by Dr Norman Jackson at the Quality Assurance Agency<sup>2</sup>. The impetus for the programme, which focuses on academic practice with regard to student assessment, came from Dr Jackson's own interest in institutional self-evaluation, in which the inability of an institution to directly compare its performance with that of its peers was felt to be a significant gap, and from the work done by HEQC through its two year Graduate Standards Programme.

The programme comprises four projects, but is still at a relatively early stage, and the specification was drawn up only in January 1997. The bulk of funding is concentrated on a project (focused on history, computer studies, and business studies) to develop methodologies which will enable academics to directly compare their assessment practice. The second study, involving four 'old' and 'new' universities aims to develop methodologies for comparison of assessment regulations at an institutional level. The third project, set up by the Engineering Professors Council, is looking at the assessment of BEng programmes within eight ('old' and 'new') institutions. The fourth is an internal benchmarking exercise for one institution. Other linked initiatives include the benchmarking of credit transfer regulations by the Northern Universities Credit Consortia for Access and Transfer (NUCAT) involving 35 universities, and an international benchmarking exercise by the Hotel and Catering Institutions Management Association focused on curricula.

Dr Jackson believes that the UK is taking the lead in "actively exploring ways of using benchmarking methodologies as an aid to self-improvement and self-regulation of academic practice"; this work has been given an added impetus by the recommendations of the Dearing Report .

### **Benchmarking of Quality Management**

In the sphere of departmental quality management , a project instigated in 1996 by the Engineering Professors' Council and involving six university engineering departments, each with "its own distinctive culture" is worthy of note. Though not described as 'benchmarking' as such, it shares some of the main characteristics of a benchmarking exercise: self-evaluation, the sharing of information among a group of peer institutions

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<sup>2</sup> For further information, contact Dr Jackson at the Quality Assurance Agency, 344-354 Gray's Inn Road, London, England WC1X 8BP Tel.: 0171 837 2223 Fax: 0171 278 1676 E-mail: 100631.143@COMPUSERVE.COM

with the aim of identifying and adapting 'good practice', and the subsequent development of action plans to implement change. A report on the first stages of the project by its three external facilitators/consultants<sup>xi</sup> suggests that this project might act as a model for "developing discipline-based networks which span very different institutions, but which are linked by a common development theme" and stress the potential of this type of network to be used, for example, for "the benchmarking of quality management practices".

The aim of the project was to develop a common specification for a departmental quality management framework by means of a collaborative review and evaluation process "focused on development and improvement rather than accountability". The elements of quality management scrutinised were: curriculum design, approval and review; delivery and management of programmes; guidance and support for students; student assessment and the setting of standards; student admissions; recruitment, appraisal and development of staff.

First, each department evaluated its own arrangements for quality management using a specially devised audit tool (a structured template of questions and prompts), which then formed the basis for discussion at a one-day visit to each department by the project's facilitators. During this visit, the consultants and departmental staff looked at the department's activities and the institutional curriculum framework, the department's quality management arrangements and the interface between those arrangements and quality assurance measures at the faculty or institutional level. The facilitators were able to comment on the department's quality management approach in the context of practice witnessed in other departments of the pilot group. On the basis of this visit and additional documentation they constructed a profile for each department which summed up its position at the start of the project. Each department also received a consolidated feedback report which "described systematically the range of practice observed across all the departments and highlighted noteworthy practices"; it also enabled departments "to locate their practice within the spectrum of practices observed". A one-day workshop also enabled departmental representatives to share such practices, and further exchanges of information and interdepartmental visits followed. A development and implementation plan was then produced by each department, and the consultants made further visits to monitor progress and offer guidance in developing the department's quality management system to meet the agreed framework.

### **Benchmarking in Libraries**

The possibility of benchmarking in UK Higher Education libraries was discussed in a conference paper by Cheetham in April 1993.<sup>xii</sup> The first institution, apparently, to implement the idea was the Royal Military College of Science (RMCS) at Cranfield University late that same year.<sup>xiii</sup>

As described by the Librarian, Stephen Town, the project sprang from a TQM programme already adopted by the RMCS library in summer 1993; benchmarking

appeared as part of the TQM 'roadmap' within the customer focus area. Deciding that the library could not really "claim to be seeking continuous improvement without using what industry seemed to consider to be one of the simplest and most effective tools available", Town successfully applied for funding to the University Principal.

The context for the benchmark exercise was "an increasingly competitive environment" together with the need to "generate and measure 'satisfaction and effectiveness' as well as economy and efficiency". The library's 'critical success factors' (CSFs) were defined as: current, accessible information matching user needs; cost-effective services matching contract requirements; well-trained, motivated and approachable staff; effective communication with users; positive response to change; provision of the right environment for learning. Accordingly the areas chosen for benchmarking were: availability of up-to-date stock; unit costs; staff development, ability and approachability; user experience, education and feedback; innovation; learning environment. Because of the three month time-scale for the project, external consultants were appointed to handle the project, though there was a commitment to involving the library's own staff at all times.

From a list of 60 possible partners, including technological university libraries, small academic libraries, and those known to be active in performance measurement, the final shortlist of 17 included 'old' and 'new' universities with a broad geographical spread; no partners were sought outside academic libraries.

Preliminary data was gathered through a questionnaire, the elements of which related to the different CSFs. The immediate feedback from this confirmed to RMCS that they were dealing with organisations with similar concerns to their own. One negative finding was that no library regularly collected data on unit costs; in consequence this part of the project was dropped. Four key processes were identified: user induction and education; information retrieval; information provision and delivery; facilities provision. The consultants then developed a short-list of libraries that they considered best-in-class for a particular process.

In the course of a follow-up visit to each library, three separate measurement studies were conducted. These aimed to quantify user-related measures so comparisons could be made across all participating institutions. In the availability study, the team searched an OPAC, investigated the circulation status and, if available, located books on shelves. The second study sent 'surrogate users' to each library with three reference requests and assessed the institution's success in dealing with these. The process experienced by the surrogate user was as of much interest to the team as the delivery of the expected outcome. Each library was also scored on a five-point scale for: approachability of staff; ability of staff; physical appearance of stock; signing and guiding; library environment; ease of use of OPAC. Each participant received a written report summarising the findings at their library and a final consultant's report.

At RMCS, further action was then needed to improve the library's own performance to match those who were 'best-in-class'. In the eighteen months following the exercise, a number of developments and enhancements had resulted, with "scope for more given the huge amount of information collected". Town reported that "we gained a great deal of confidence, reassurance and tangible evidence about the relative quality of our service...and a strong sense of the common issues and concerns within our industry". In retrospect, however, he felt that RMCS had taken on too much with this particular exercise; future benchmarking would be conducted at the sub-process level. He also thought it advisable to include "other industries who use similar processes" in future and to ensure a stronger ownership of the project by library staff.

That RMCS was, in 1993, in the forefront of benchmarking in academic libraries is confirmed by Garrod and Kinnell Evans, whose 1995 report<sup>xiv</sup> judged that there were few formally identified initiatives, but widespread use of elements of benchmarking in an ad hoc, informal way. These included extraction of data from comparative sources, such as statistics produced by SCONUL and seeking of good comparative practice.

Barriers to wider use of 'proper' benchmarking identified by the report included: the perceived effort involved; the unfamiliar language; lack of training; a cycle in which those looking for benchmarks might well be ahead of other libraries anyway; difficulty in identifying direct benefits within a reasonable timescale; the existence of many other quality and performance measurement initiatives; the need for a sympathetic institutional context.

Undeterred by this, in September 1996, SCONUL's Advisory Committee on Performance Indicators established a working party "to bring forward proposals on benchmarking", defined here as "seeking to formally measure local service performance against suitable comparators in libraries or outside, and to establish key factors in differences observed". Headed by Ian Winkworth, Director of Information Services at the University of Northumbria at Newcastle<sup>3</sup>, the proposed scope of the exercise, as at April 1997, was: to look at existing SCONUL statistical and Library Profiles data and seek to present them in a more "benchmark-friendly way"; to select a few subjects (eg book shelving, desk queues, team building) and seek to gather and compare data on different ways of organising the tasks, including data from outside libraries where applicable; to disseminate information on activities and on knowledge (eg via SCONUL Newsletter, email lists); to write up and publish the individual library benchmarking exercises; and to "hook into" HEFCE's quality activities. The British Library Research and Innovation Centre (BLRIC) was proposed as a possible source of funding.

In June 1997, staff "with significant experience in benchmarking" were invited to form a small working group, ideally comprising a mixture of "chiefs, site or function librarians

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<sup>3</sup> For further information, he can be contacted at University of Northumbria at Newcastle, City Campus Library, Newcastle upon Tyne, England NE1 8ST Tel.: +44 191 227 4125 Fax: +44 191 227 4563 E-mail: ian.winkworth@unn.ac.uk.

and (if achievable) someone from [the] funding councils' quality area plus one 'expert'. Four 'old' universities and five 'new' ones expressed interest in joining; the ten or so academic libraries keen to comment on or pilot any resulting proposals similarly reflected the hoped-for mixture of pre- and post-1992 institutions. An initial 'brainstorming' session was being arranged in August 1997 and it was proposed that the outcomes of the benchmarking project be reviewed after nine months.

As a postscript to this section, Poll and te Boekhurst's recent book<sup>xv</sup> should be noted; it draws up international guidelines for performance measurement in academic libraries and includes discussion of performance indicators relating to 17 different processes.

### **Benchmarking in the Finance Function**

Aside from HEFCE's study on treasury management (discussed below), there are currently at least two benchmarking projects being conducted by finance directors in UK universities.

A benchmarking project conducted by the British Universities Finance Directors' Group (BUFDG), asked in 1996 for quantitative data on staffing in university finance departments, specifically the ratio of staff numbers to £100M turnover and to 1,000 fte students. Staff are categorised, on the questionnaire, by specific function (eg financial accounting, payroll and pensions, secretarial) to eliminate the possibility of omission or ambiguity. The last section of the questionnaire asks for data on volume of business and productivity, eg how many employees each payroll staff member deals with; in accounts payable, how many thousand invoices are handled by each member of staff, and on salary costs. Each participating university is presented with its own figures set against the survey results, presented in three broad bands: lower quartile, median and upper quartile.

In the London area, eight finance directors of higher education institutions have agreed to meet, on a fairly informal basis, to benchmark their different approaches to financial accounting activities (sales ledger, purchase ledger, etc); another focus for discussion is the scope of the finance director's function which varies considerably between institutions. One Finance Director reported that it was proving time-consuming just looking at the differences between the institutions in order to validate comparisons. The study aims to look at activities at the output (not just the input) stage, in the hope of producing a better representation of 'performance' than past studies have achieved.

The view of Mike Milne-Picken at the University of Central Lancashire<sup>4</sup> is that quantitative benchmarking in the finance area will greatly expand with the publication by HESA of a new CD-ROM, *Finance Plus*, which includes detailed financial accounting data in hundreds of categories from all higher education institutions, presented in a spreadsheet format so that data is easily comparable.

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<sup>4</sup> Contact details: Mike Milne-Picken, Head of Planning, University of Central Lancashire, Preston, Lancashire, England PR1 2HE E-mail: m.milne-picken@uclan.ac.uk

## **Benchmarking Estates/Facilities Management**

Apart from the HEFCE Value for Money Studies on Energy Management and Estates Management discussed below, the Conference of University Business Officers (CUBO), with a membership of 60 institutions, have for several years produced Performance Indicators "in order to allow members the opportunity of a comparison exercise".<sup>xvi</sup> Data is collected under six main headings:

- Catered Residences
- Self-Catering Residences
- Central Catering
- General
- All Year Round Centres
- Conference Marketing and Training

Within these categories, information is collected on a considerable range of activities: under Catered Residences, for example, there are 14 separate sections, which include salaries and wages; fuel, power and water; maintenance of buildings; furniture and equipment; laundry and linen costs; food cost per student meal; student income; percentage occupancy (term and vacation time); loan finance.

Another group who are active in benchmarking in this area are staff at Sheffield Hallam University's Facilities Management Graduate Centre, where Dr If Price runs a benchmarking group involving around a dozen universities.<sup>xvii</sup>

## **Benchmarking via Existing Groups/Consortia**

Within the UK HE sector, universities have joined with other institutions to form groups or consortia, based on common interests either founded in their regional location or broad institutional type. Not surprisingly, such groups have provided a focus for some benchmarking projects. The Southern Universities Management Service (SUMS), a management consultancy service run on behalf of the 12 institutions in the region, has undertaken one-off pilot studies on staffing, personnel, and the effectiveness of printing units, using quantitative data, with the aim of developing performance indicators. The 94 Group of 14 smaller research-based 'old' universities produced in November 1997 a volume of comparative management statistics, based on published data produced by bodies like HESA and UCAS, and covering four main areas: students; finance; staff; quality assurance. Each university can see its own data set against that of other 94 Group members and against the UK average, where this is available.<sup>xviii</sup>

The Birmingham office of the private consultancy firm KPMG have been undertaking Value for Money Studies for a small regional consortium of four 'old' universities for the last five years, at a rate of one study per year. Both quantitative and qualitative data

are collected and the topics covered so far have been: space utilisation, eg occupancy rates and how space is split between teaching and research functions; provision of engineering/building workshops; administrative computing services; and procurement management. The last study has focused on the information on suppliers used by universities to support their purchase management; purchases have been analysed to identify the top suppliers by department (rather than at institutional level only as is the norm) so that better discounts can be negotiated. Past studies are still being reviewed to get feedback from users.

KPMG in Birmingham also manage a group of nine 'new' universities (not a formal consortium); they meet annually to identify a topic of common interest to be benchmarked. Each topic takes about a year to complete and areas covered so far have been: catering management, business planning; print and reproduction; sickness management.

### **Benchmarking Across the Higher Education Sector**

Potentially one of the largest benchmarking studies involving UK universities was launched in August 1997 by KPMG, on behalf of a client outside the higher education sector. The processes under examination are accommodation allocation, allocation to courses, and discharging students at the end of their course. All UK universities have been invited to participate. The first stage involves the provision of quantitative data via a five page questionnaire; this is to be followed by a telephone interview to gather information on the qualitative aspects of these processes. Once the data has been compared, participating institutions will receive a report of the findings, which is to include an identification of their current performance and an indication of areas where there is potential for improvement. It will also include descriptions of 'better practices' that the universities can consider adapting to their own operations.

### **HEFCE's Value for Money Studies**

The Higher Education Funding Council for England (HEFCE) began its 'Value for Money Studies' (VfM) project in 1993, when all UK higher education institutions were consulted with a view to identifying those areas of activity which would most benefit from a sector-wide review. A National Steering Group, with members drawn only from higher education institutions (not from the Funding Councils) was established to oversee the initiative and give it strategic direction. Some projects represent the joint efforts of all three Funding Councils and the Department of Education for Northern Ireland (DENI); some have involved other bodies such as CVCP or SCOP.

John Rushforth, Chief Auditor at HEFCE<sup>5</sup> reports that when the studies were first proposed, a number of institutions were concerned that proscriptive models were going

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<sup>5</sup> For further information, he can be contacted at HEFCE, Northavon House, Coldharbour Lane, Bristol, England BS16 1QD. Tel.: +44 117 7416 Fax: +44 117 7396 E-mail: j.rushforth@hefce.ac.uk  
Or visit the HEFCE Website at: <http://www.hefce.ac.uk/initiat/current/vfm.htm>

to be imposed and about possible funding implications. Since the first reports have been published, however, the attitude from the sector has been more positive. HEFCE gets informal feedback on each project through seminars run six months after completion of the study and through the Council's regular audit of institutions. A formal evaluation of each study is due to be held two years after completion.

Though the precise methodology for each study varies, depending on its subject, the established process is: initial discussions with a representative group; a research phase; detailed visits to pilot sites; development of performance indicators; publication of national reports and review guides; training/implementation seminars, if desirable; and an evaluation of impact. Participation in HEFCE studies is voluntary, the Council's motto being 'by the sector for the sector'. A SHEFC spokesman estimates the cost of mounting one study for the Funding Council as between £50,000 and £100,000. The participating institutions do not pay a fee, but taking part will 'cost' them approximately four person days' input.

The first two VfM studies, published in March 1996, dealt with Treasury Management and Energy Management<sup>xix</sup>. Fifteen institutions acted as pilot sites for the Treasury Management study (three colleges of higher education; five 'post-1992' universities; and seven 'old' universities, including one medical institution). Fieldwork at the pilot sites covered: overall treasury management arrangements; cash flow management; banking arrangements; management and investment of short term funds; endowments and long term investments; financing arrangements, with an initial and then a supplementary questionnaire prepared for each element. The accompanying Management Review Guide was field-tested at an additional pilot site to further refine the approach before it was published.

The key findings were as follows: the majority of pilot institutions did not have a formal treasury policy or annual strategy, and institutions tended not to have documented their treasury management procedures. Institutions which prepared regular cash flow forecasts and closely monitored them were better able to identify surplus funds accurately and to maximise funds available for investment. Five pilot institutions were found wanting in this respect. The seven pilot institutions which had market-tested their banking services within the last five years had significantly reduced their bank charges. The institutions which achieved a higher rate of interest on short term investment of surplus funds tended to be those with a more pro-active approach to treasury management. There was considerable room for improvement in the level and standard of monitoring of long term investments.

Nineteen institutions (including 'old' and 'new' universities, art colleges and colleges of higher education) piloted the Energy Management project, in which advice and examples of good energy management practice were sought from public and private sector organisations outside the higher education sector. The study's main findings were that overall energy savings of between 10 and 20% of utilities spend could be achieved over a period, but only with senior management commitment and sufficient funding for

staffing. In many cases, institutions had been able to fund their energy management programmes from savings made by more effective utility purchasing arrangements and from installing energy-saving equipment. Energy awareness programmes promoted across campus were effective in reducing energy consumption; one institution had saved 8% of its annual energy budget. Most institutions already took energy-saving measures into account as part of their buildings and maintenance programme; the installation of an energy-efficient chiller plant at one institution had saved it £200,000 pa. An interesting accompaniment to this study was the development of Energy Benchmarking Software, beta tested at four sites, and designed to complement existing management information by identifying buildings with poor energy performance where remedial action is required.

One director of estates involved in the study commented very positively on the impact it had had on energy management at his institution. The study had shown that the University's water expenditure was high compared compared to similar institutions; also that its record-keeping methods could be improved. Following the study, a water sub-metering system was installed in all buildings, so that high users could more easily be identified, and a computerised record system set up, relating energy use to specific departments. With this detailed information, it was possible to take action against 'high energy spenders' and to start an energy awareness campaign. Similarly, by 1997, an inadequate boiler system had been made reliable in ninety percent of buildings, and energy-saving measures were now incorporated into the design of new buildings. HEFCE's study had enabled the director to justify requests for additional funding from the university and to receive a positive response from the Board of Governors.

Value for Money Studies in 1997 have looked at Estates Management and Information Technology, together with smaller-scale studies on Environmental Audit and Procurement Benchmarking. The Estates Management Study covers: policy development, maintenance planning, resource planning, managing the workload, getting good prices, and evaluating quality, with the emphasis on the latter four. Processes to be benchmarked include: financial forecasts and budgets provision; the size and organisation of the maintenance function; information systems (manual and computer); in-house and contractor arrangements; post-completion work inspection; complaint monitoring. One early finding is that funding shortages are having a considerable impact on estates strategies, with money diverted from maintenance to other areas within institutions. Quality of service, however, was found to be consistently a high priority. Publication of the full report is planned for the end of Autumn 1997.

In focusing on Environmental Audit, HEFCE was responding to issues raised by The Toyne Report of 1993<sup>xx</sup> and by the Government, whose environmental education strategy emphasised the need to encourage the establishment of environmental management systems (EMS) across the formal education sector. The structure of the study was informed by practical experience in the private sector and carried out by the University of Sunderland's environmental consultancy and training unit, ESAS, at six institutions (two art colleges, one 'new' and three 'old' universities). In each case, the

environmental audit aimed to: summarise the overall regulatory position; identify the institution's position in regard to these regulations; provide guidance on likely future changes in environmental legislation; and benchmark current environmental performance against best practice.

Early feedback from participants has been positive, with specific benefits found in the areas of cost saving, legal compliance, and staff and student involvement. Most importantly, since the success of any benchmarking or VfM study rests on its capacity to produce change, in several cases the review and its report provided the incentive to get issues that were under consideration off the backburner and acted upon. At one institution, the purchasing co-ordinator reported that "the audit has given us the opportunity to put an environmental purchasing policy back on the agenda of the University's Purchasing Working Group". As an adjunct to the study, HEFCE has produced a workbook which enables institutions to assess their own standing on environmental issues, with the ultimate aim of implementing a full environmental management system. Publication of the final report is planned for Autumn 1997.

The IT study has involved approximately 20 institutions from across the whole HE sector, and included 3-5 day visits to 12 pilot site institutions. Areas covered by the study include: resource allocation models; performance monitoring; workstation access hours per student; depreciation; procurement of IT equipment; use of student drop-in centres/helplines; investment criteria, and how resources are subsequently managed; the growth of Internet and e-mail use. HEFCE is commissioning a user-satisfaction survey for staff and students to be sent to six institutions. The final report will probably be published in March 1998.

In the context of this study, one of the most interesting of the HEFCE Value for Money Projects is that dealing with Procurement Benchmarking. Involving seven universities, and aiming "to develop a methodology for the improvement of procurement practice", it divides procurement, for benchmarking purposes, into 25 or so processes. These include: strategy development; purchasing horizons; purchasing procedures; customer service; supply chain integration; price management; cost management; supplier relationships; and risk management.

The end product, published in September 1997<sup>xxi</sup> "is not intended as a report of a study", with conclusions and recommendations, but rather as a 'handbook', with accompanying software, designed "to provide senior and line managers ...with a powerful set of tools which they can use to assess their current strengths and weaknesses and to develop those aspects of procurement management which do not currently meet their aspirations".

In the introductory section, procurement is described as "something of a Cinderella process within most HEIs"; with, however, "as much as 40% of institutional costs [now] represented by bought-in goods and services" in UK institutions, it is "critically important that institutions attach much higher importance to procurement, and seek to maximise the value secured through the whole procurement process". Procurement is

clearly an activity where HEIs can benefit from benchmarking with other industries: informal evidence from HEIs suggested that the average cost of processing purchasing orders is between £50 and £100 per item (multiplied by 50,000+ orders pa) as compared with 'good practice' benchmarks of £20 to £25 per order.

Following the introduction which briefly discusses benchmarking as a management tool, the need to analyse procurement as a process prior to benchmarking, and how to select commodities and services to be benchmarked, the Handbook comprises three main sections.

Suggesting that it is more sensible for most institutions to benchmark their actual levels of performance against realistic management aspirations, rather than against World Class standards which may not be cost-effective or feasible, the Management Aspiration Workbook provides guidelines on how to "reach agreement on the most appropriate level of management aspiration once a commodity or service to be benchmarked has been selected" via a workshop involving all 'key stake-holders' in the procurement process.

Once these aspirations have been established, the Observational Workbook provides a questionnaire to enable benchmarking participants to map their actual practice; participants are advised to complete this questionnaire at the end of the Aspirations workshop, as this "encourages a level of discussion about actual practices, which helps to promote better quality information". Conversely, if participants complete the questionnaire in isolation, there is "a strong risk of misunderstanding, inconsistency and a lack of deliberation".

The accompanying software includes a programme which analyses the data gathered from the first two stages and presents it in the form of a radar chart; each aspect of the procurement process (eg stock management, customer services, supplier relationships) is graded on a scale from 0 to 4 in terms of a) aspirations and b) actual practice. The difference between the target set for a desired level of performance and the actual performance, the 'aspiration gap' is made graphically clear via the radar chart. Institutions should then consider the likely benefits to be achieved by closing each particular gap and the cost of doing so. Institutions are advised "only to close gaps which deliver a business benefit". The chart also enables benchmarking participants to see clearly the areas of the procurement process in which they are already achieving 'good practice'.

The last section of the handbook comprises a model for delivering a presentation on 'Benchmarking Procurement: Developing an action plan to achieve Effective Purchasing'. The main headings for the presentation are: a working definition of benchmarking; why we wish to benchmark; what we are setting out to benchmark; how we will set out to find good benchmarks; some of the pitfalls of benchmarking and how to avoid them.

At the end of 1996 HEFCE asked the sector to choose topics for the next round of studies and to indicate their willingness to act as pilot sites. From the 23 subjects offered (17 'priority' and 6 'non-priority'), those chosen by respondents (73 percent of English institutions and all those in Scotland and Wales) were human resource management, registry systems and facilities management.

### **Conclusions**

Benchmarking is certainly alive and well in UK universities, with examples to be found in most spheres of activity, both academic and administrative. The activity seems, however, to be still in its infancy, with most projects occurring within the last four to five years. Although the findings of HEFCE's earliest VfM studies and the RMCS library project do suggest that participants are accruing worthwhile benefits from benchmarking, most of the initiatives discussed above are at an early stage. Given the time required for an average project from initial planning to delivery of final report (nine months to a year), plus another 18 months minimum for action plans to be implemented and the first results monitored, their success, in terms of impact on practice, at either the sectoral or institutional level cannot yet be judged.

### **References**

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## CHAPTER 6: BENCHMARKING IN EUROPEAN HIGHER EDUCATION

*Dr Ulrich Schreiterer*

In Germany, as in most other countries of continental Europe, up to now benchmarking has not yet been widely practised as a tool to improve academic performance and management processes in higher education by comparing an institution's key data, structures or processes with those of selected peers. Of course there are many annual statistical abstracts, published on the national or state level or by higher education institutions (HEIs) themselves, of key data such as student enrolment, expenditure or staff as well as of selected performance indicators. But hitherto there have only been very few attempts by universities or colleges to use comparisons as an instrument for self-improvement.

The reasons for this are quite simple: in Europe nearly all systems of higher education are owned and operated by the state, and despite many differences in missions, size and profile of HEIs and of what may be called a 'regulated competition' among them in all countries there are only very few private colleges, most of them business schools. Thus the procedures to govern and run universities and colleges - budgeting, accounting and employment - are those prescribed and practised by the respective states, and there has been little, if any, room for self-governance and management. Some of those general rules even imply incentives which prevent HEIs from efforts to enhance self-governance. So, for instance, line-item budgeting sanctions the successful use of management techniques to improve institutional efficiency by cuts in the budget.

But times are changing, and there are many attempts in different European countries towards loosening state-control of higher education and towards deregulation - not only in what may be called 'inner academic affairs', but also in the way HEIs are operated. There are two indicators for such a development: the tendency to be observed in nearly all countries of continental Europe towards lump sum budgets or block grants for universities as well as towards a formula-based resource allocation, which is designed to foster efficiency and competition in performance. As a consequence, all this entails an increasing demand for comparative data and performance indicators at all levels of higher education systems. Institutional autonomy has to be legitimized by a greater accountability of HEIs. Furthermore, there is an increasing pressure on HEIs to improve both their managerial and academic performance. This, in return, is mostly accompanied by cuts or at least a stagnation in public funding, which leads those institutions to experiment with new structures of decision-making and to set up new management approaches.

Given these changing settings benchmarking techniques will certainly gain influence and may be seen as a challenging way for self-improvement. At least as far as Austria,

Germany and Switzerland are concerned, completely new budgeting devices have either already been set up or are about to be implemented. At the same time we are witnessing the installation of controlling agencies responsible for the creation of positions of controllers at individual HEIs. The manifold attempts of public institutions or government agencies to put together comparative lists of data concerning universities may be considered as yet another indicator for the rapidly changing setting.

### **The Growing Importance of Statistical Data and Performance Indicators**

In Germany, for instance, statistical abstracts of student enrolment and staff (both academic and non-academic) employed at HEIs have been published for many years by the 'Statistisches Bundesamt' (to be compared to the HMSO in the UK, at the federal level), 'Statistische Landesämter' (state level) and 'Wissenschaftsrat' (Science Council). In 1988, however, in an attempt to shed some light on the tremendously increasing duration of studies at German universities, and to foster a public effort to curb it, the Wissenschaftsrat published an annual abstract comparing the time students took to take their degrees in selected major fields at different universities. At the beginning the quality of data compiled from secondary sources was fairly weak. The Council, thus, was heavily criticized by universities and the public not only for publishing those data but also for considering them to be a hint that something had gone wrong with academic training in Germany. To be sure - it was more or less common knowledge and a tacitly accepted fact that there are considerable differences between the actual time to obtain a degree on the one hand, and the official duration of study programmes on the other. And yet, to many it came as a big surprise that enormous differences existed also between individual universities. And it took some time until this was identified as a serious problem. Universities became eager to provide exact data and at many places a discussion was triggered as to what could be done to improve comparatively weak performances.

The next step towards more transparency of costs and performance of academic training in Germany was also taken by the Wissenschaftsrat. However, it turned out to be a complete failure. In a report titled 'Daten und Kennzahlen zur finanziellen Ausstattung der Hochschulen - Alte Länder 1980, 1985 und 1990', published in October 1993, the Council tried to calculate the respective costs of academic training in selected fields at different universities by dividing the departments' annual budget for teaching (including staff and equipment, but no writes-off or rents for buildings) by the number of graduates. As the budgets until now do not differentiate between teaching-load and research loans and as most of the official data used for that study moreover turned out to be very unreliable, the academic community again rejected this approach as useless and even misleading. Although the Wissenschaftsrat subsequently agreed not to publish another edition, it was able to gain support from a group of universities and states for a project geared towards establishing collaborative and voluntarily cost-comparisons among their universities and departments. The data compiled are supposed to be used as a device for further work. Such a kind of financial statistics of HEIs had never before

existed in Germany. The results of that pre-test, which had to cope with many difficulties to make the necessary data comparable, were published in July 1997.<sup>6</sup>

Another important initiative towards quantitative comparisons of HEIs and their performance was launched in 1994 by the Ministry of Science and Culture of Lower Saxony. It commissioned the 'HIS - Hochschul-Informationen-System' (an agency sponsored by the states and the federal government to collect data on higher education and to conduct selected studies) to gather comparative data and to create performance indicators for four fields/departments at the seven universities and eight 'Fachhochschulen' located in Lower Saxony. The study encompasses courses offered to students, expenditure, staff-student-ratios, space available and other items related to performance. It was published in 1995 and has since then gained great influence in the current debates about how to improve academic performance by means of efficient organisation. As it claimed to have developed and also empirically applied a new methodology, this study can be seen as a break-through. It also has triggered a number of similar studies elsewhere. With the methods first exemplified in that study, HIS itself is about to publish a new report with data for all fields and departments at HEIs in Lower Saxony by the end of 1997.<sup>7</sup>

### **From Statistical Abstracts to Benchmarking**

Stimulated by something which might be called a 'benchmarking-euphoria' in business and industry with a large number of workshops, case studies and seminars offered by consulting firms and by organizations such as NACUBO and APQC in the United States, which use benchmarking techniques in assessing and improving HEIs, an as yet small number of benchmarking approaches in that area has also been developed in Europe.

For several years, for instance, CRE, the Association of Rectors of European HEIs, has conducted 'Institutional Quality Management Reviews' on the basis of peer reviews and mutual visits to the universities participating voluntarily in a cycle each time focussing on a specific issue. CRE itself describes this approach as a kind of 'implicit benchmarking'. To make it explicit, the procedure would have to be more strict, especially with regard to the collection and comparisons of data and their common assessment. CRE intends to move in that direction. However, as yet it is still uncertain whether it will be able to gain sufficient support from its members and whether the resources provided will be sufficient means to conduct such a study. In any case, the study is intended to focus on investigating processes instead of costs or numbers, thus drawing on qualitative rather than quantitative data.

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<sup>6</sup> Wissenschaftsrat, Finanzstatistische Kennzahlen ausgewählter Studiengänge. Eine Modellstudie. Koeln im Juli 1997 (117 pages). Wissenschaftsrat, Brohler Strasse 11, D - 50968 Koeln

<sup>7</sup> HIS, Ausstattungsvergleich niedersächsischer Universitäten und Fachhochschulen - Methodenentwicklung und exemplarische Anwendung. Hannover 1995 (Autoren: Michael Leszczensky und Hermann Thole)

HIS GmbH, Gosseriede 9, D - 30159 Hannover

Apart from this project initiated by an already existing association of universities, I have knowledge of only two examples in which a university or college tried to explicitly use benchmarking as a tool for self-improvement. Neither approach, however, implied the establishment of a group of institutions whose partners would agree on relevant indicators and data to be provided and interpreted confidentially. Instead just one university tried to get hold of relevant informations from other institutions. Selection, processing and interpretation of these data were done without an active contribution by the institutions referred to.

### **Two Examples: 1 Copenhagen Business School**

In 1995, the Copenhagen Business School undertook a benchmarking analysis of undergraduate studies at 12 HEIs, all of them members of CEMS (Conference of European Management Schools). The purpose of this analysis was to review and to develop further bachelor studies at CBS. For that a task-force first designed a questionnaire encompassing all elements considered to be of importance to the CBS in connection with the evaluation of BSc programmes in Business Economics and Business Administration. According to this principle, the partners of CEMS were asked to provide information and data for the following sixteen items: mission statements; funding (costs per student); subject fields; quality assessment; undergraduate programmes; teaching staff; courses; literature (integration of the courses; means of education; means of examination); introduction units; contact with the business community; student exchanges; student participation in study-planning. Secondly the Danish CBS students enrolled in one of the partner-institutions were asked to voice their opinions, to report their experiences at their host-institution and to compare them with those gathered at CBS.

In a first part of the preliminary report dated December 1995<sup>8</sup>, all the information given by the partners was put together into a synopsis following the items asked for. A second part contained as an appendix more detailed information about the courses offered as well as the institutions' means of teaching and examination. If available, comments of CBS students were added to these data. At the end of each systematic chapter in this first part, there are short comments trying to emphasize the main differences or similarities between the participating institutions. A general conclusion summarizes these comments at the end of the first part. However, it neither provides an assessment aimed at identifying 'best practices' nor does it attempt to draw explicit conclusions for improving current practices at CBS.

CBS itself admits that the outcomes of the analysis were somewhat disappointing and that they did not meet its expectations. On the whole, the study produced something like

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<sup>8</sup> CBS Methodology Development Project: Benchmarking Report on the Undergraduate Studies of the CEMS-Partners. Copenhagen December 1995 (Unpublished, 60 pages). Contact address: Vice President Ms Bente Kristensen, CBS, Struenseegade 7-9, DK - 2200 Kobenhavn (Fax +45 3815 20 15. E-mail bk/ledsek@cbs.dk.

a guide or a 'vademecum' rather than data constituting a test profile that would allow for reasonable conclusions with regard to the benefits of the CBS, and it appears that this benchmarking analysis did not go into any implementation of a change in CBS bachelor courses. But the report also clearly demonstrates that the method cannot be used as more than a first step since there was no clear definition of the issues under consideration (the meaning of terms like 'lecture', 'undergraduate course' or 'cost per student' differ widely from country to country), and data from the benchmarking partners were often incomplete or to some extent even wrong. Moreover, as CBS did not try to select key elements that would allow the identification of 'best practices', there could be no 'benchmarks' for self-improvement. As a consequence, CBS says that next time it will try to include an audit visit in the project in order to secure data and to be able to interpret findings in a productive way.

That example also illuminates a crucial point of benchmarking processes: it needs a lot of preparatory work to systematically collect both quantitative and qualitative data. First, one needs to get the issue under consideration very clear - not only for the institution that undertakes such a study, but also and even more so for the partners asked to deliver data; and then one must pay much attention to collecting 'right' data, ie those which make sense when they are compared. The method applied here did not allow for that, although it would only have been possible to proceed in this way if the benchmarking design had been a common enterprise of partners who were all interested to improve institutional performance by exchanging and assessing relevant data. The limits of methodology thus account for the limited value of the results of this study. This also holds true for the second example of that sort of benchmarking.

## **2 University of Kaiserslautern**

The second example comes from Germany. The University of Kaiserslautern (a comparatively small and young university with an emphasis in engineering and science) launched a benchmarking analysis of three courses in the field of engineering. This analysis was part of a PhD thesis, and the aim was to reduce the duration of studies. In a first step the doctoral student looked for factors which might have an impact on the time it takes to get a graduate degree, above all those which could systematically contribute to an undesirable prolongation of exams procedures (internal regulations concerning the transfer of credits earned elsewhere, deadlines, repeatability of exams failed, teaching conditions, etc). This was followed by a description of the status quo on the basis of selected data. In a third step, similar data were collected from seven other German universities comparable in teaching standards and profile. Finally, all data were put together in a survey which allowed the comparison of the differences in the duration of the study and to account for possible causes.

As it turned out, the key elements accounting for an undue prolongation of study were the number of courses and the formal organization of final exams. As a result, the University changed both. Thus the benchmarking analysis immediately led to changes in practice. They might also have been done without that. But as the benchmarks were

chosen from well respected institutions the analysis legitimized those changes which otherwise would have been rejected as lowering standards. The thesis written about it is due to appear at the end of 1997.

A second project using benchmarking techniques at the University of Kaiserslautern is dedicated to strategic management of technical universities in Germany. Started in 1996, it has so far not been completed. Like the study described above it will also be a PhD thesis sponsored by the university.<sup>9</sup>

### **The German Benchmarking Club of Technical Universities (BMC)**

In Spring 1996, the then recently founded CHE (Center for Higher Education Development), a non-profit Institute operated by the Bertelsmann Foundation in Guetersloh and by the German Rectors Conference to stimulate modernization and competition of HEIs in Germany, started an appeal to apply benchmarking analyses at German HEIs as a promising part of a new university management. The best way of bringing it into operation seemed to be to gain experience with a small number of universities which already use more modern management devices, show similar performance and which, because of their structure, are open to new methods. In that respect the partners had to be recruited from the informal group of some twenty German technical universities or universities with a strong bias to engineering and science. CHE suggested that they should form a club or rather a closed shop in order to be able to exchange sensitive data on a strictly confidential basis.

Benchmarking, as it was understood and practised here, shows typical features which characterize it as a new qualitative approach, differing from performance indicators as well as from the two benchmarking studies described above. First, it does not aim at public accountability; benchmarking is used for the internal purposes of the BMC partners only. That is why it was, secondly, organized as a club, on the grounds of strict equality of the members and of mutual interests. Third, right from the beginning there was a strong inclination towards a process orientation instead of pure product orientation. Fourth, all data are collected and exchanged according to the needs commonly defined and on a strictly confidential basis.

In June 1996 the BMC was constituted at a meeting of the informal group. Following a proposal by CHE, whose job would be the management and moderation of the BMC, seven members were recruited on a basis of voluntary commitment, some regional balance and different sizes in spite of many other characteristic similarities: Technical Universities of Aachen (RWTH), Berlin (TUB), Darmstadt and Hamburg-Harburg (TUHH), Universities of Dortmund, Kaiserslautern and Magdeburg - the latter located in former GDR.

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<sup>9</sup> The name of the author of the first project is Frank Schaffrath, the second is Kurt Sendeldorfer. Contact phone +49 631 205 3678 or - 3803, Fax - 3532

Which subjects should be investigated was left open to internal discussion and choice. But right from the start all BMC members agreed to contribute all information needed for goal-oriented analysis and to treat the data given by their partners confidentially. At their first meeting it was decided primarily not to focus on quantitative data or on comparative cost-analysis. Instead, the procedures of the universities to distribute and to allocate financial resources (staff were not to be considered) to departments and other academic or service units should be benchmarked and their respective effects compared. As a second topic the BMC chose to compare data, internal organisation and performance indicators of three selected major academic fields.

The first topic aimed at improving decisions on resource allocation in order to meet different demands and challenges. The second analysis was intended to provide a planning tool which would allow the assessment, and possibly the readjustment, of the number of faculty or the amount of resources needed for each of those fields. However, it was understood right from the beginning that this study should be at least as much process oriented as outcome oriented.

BMC meetings are held by the rectors (pro-rectors) and presidents (vice-presidents) of the universities who are members, and take place in turn at each university. However, it soon became clear that the heads of the administration and those in charge of planning or/and controlling should also participate actively in the process since they were responsible for providing the data demanded. To prepare the BMC meetings an inner experts' circle or task force was formed which sometimes came together twice during the intervals between the main meetings.

After the decisions on topics to be dealt with, the active work began with a meeting of the task force in late September 1996. At that time it appeared both reasonable and possible to finish with the first cycle before summer vacations in 1997. However, after facing serious problems with the generation of data processed in a way fit for comparison in due time, let alone the difficulties in interpreting them, BMC members soon became aware that it would take much more time to come to satisfactory results. On the other hand the debate about these seemingly rather technical problems had already triggered internal communication about different practices at each university. In terms of a process oriented approach this proved very interesting and valuable. So, the BMC soon operated as a kind of non-hierarchical learning circle for all members.

### **BMC Topic 1: Devices of Internal Resource Distribution**

Until very recently universities in Germany neither had costing techniques nor did they operate with types of costs commonly used in the private sector of economy. Although this is about to be changed their budgets are still mostly run according to the rules of 'cameralistic' bookkeeping like annuity and well defined sorts of expenditure rather than costs. They distinguish between staff and expenditure, the latter being divided into investments and current expenditures, and again in those for general and for more academic purposes. Although what is labelled 'current expenditure for teaching and

research' differs widely from state to state, there is something of a common core to all systems. It refers to the money either the university management or the departments spend on running labs and courses, teaching and research assistants, travel expenses for academic purposes, material used for teaching or research, inviting scientists from elsewhere to give lectures or to hold courses, and so on.

The ways those more or less blocked budgets are administered by the universities differ widely. Traditionally there was little or no annual redistribution among the units as well as little transparency on what were the decisive criteria for the final outcome. Especially older and bigger universities practised 'incremental budgeting' and tended to enhance or to lower the sums given to their departments or central service units like libraries according to last year's distribution, and to the increase or decrease in the overall sums granted by government. In the last couple of years, however, most universities have begun to implement new procedures for the annual internal allocation of those funds, especially in using transparent formulas instead of discretionary decisions. All members of the BMC use such formulas, though both the percentage of total available means distributed this way and the parameters applied differ widely.

Thus in a first step all seven universities were asked to describe their respective practices. It turned out, however, that in order to compare them properly, a lot of work had to be invested in elaborating common definitions of what was taken into account so that differences in procedures and outcomes could easily be understood and interpreted. On the basis of those clarifications, CHE designed a scheme for a structured description of levels and elements relevant for those practices. At the end of that cycle one sheet for each university emerged with a diagram showing the key elements of the distribution procedure applied in 1996 and also the sums involved.<sup>10</sup>

Having done that, it was not too difficult to systematically compare the various practices under selected headings, and ask questions such as: What percentage of the total amount was distributed by formulas, and what by discretionary decisions? What parameters were used for the formulas and what was their respective impact? To what extent and in what ways did those formulas pay attention to the needs and demands of different academic fields? How much was distributed according to teaching load, how much was given for research activities? and last, but not least: What part of the total amount of money available was kept aside for discretionary decisions of the central university management compared to what was immediately given to schools or departments? The last question hints at the specific philosophy university managements hold in their relations towards departments and schools, and is decisive for the distribution of power for decision-making within the university.

It was very interesting to see that in spite of basically similar approaches and indicators used at all universities, benchmarking the individual allocating techniques applied did not at all show the same patterns. Above all great differences appeared in the respective

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<sup>10</sup> As an illustration two examples (RWTH Aachen and TU Darmstadt) are added as an appendix.

impact given to each indicator on the one hand and to multiplication factors reflecting different demands for research and teaching in different subjects on the other hand. Together they accounted for a great part of the discrepancies in the outcomes of the various models practised at the BMC universities.

To gauge the effects, impacts and philosophies of the various models a simulated calculation was set up in which the different methods were applied to the data of one of the seven universities chosen. This would constitute something like an ideal average. All the others were asked to obtain the data they needed as components of their models from that university. The comparison of the results at the level of individual departments in some cases revealed an astounding conformity. In other instances, however, - such as typically in engineering and in the humanities - great deviations occurred. On closer examination they may be interpreted as reflecting the different profiles of the universities benchmarked, which only in a few cases result from a deliberate policy, while most of them appeared to be implicit.

Having come so far, the BMC unanimously decided not to go into deeper assessment of the different models used. As budgeting, organizational structures and visions vary widely among its members, it seemed pointless to look for just one 'best practice' which would suit all members alike. Nevertheless benchmarking analyses were seen as very helpful because in the course of compiling data and interpreting them different ways of coping with similar problems became evident, thus challenging a critical review or reconsideration of individual practices. So even if the main benefit is seen in the process itself it is more than likely that some universities will try not to implement completely new allocation procedures, but at least will readjust their practices according to what is regarded as an intelligent example practised elsewhere.

## **BMC Topic 2: Mapping Selected Academic Fields**

The second issue chosen for benchmarking seems trivial at first sight, for who would believe that in Germany until now there are no nationwide statistical abstracts or handbooks which provide key data on major fields of study at the 70 or so universities in the country? Although it might be thought easy for a university to compile the numbers of students, finals, doctoral degrees, staff, employees, funds for research and teaching, courses of study offered and special research activities, many university managements lack such basic information about their departments, as statistics are not continuously updated and the reliability of data needed for controlling academic fields in Germany is in much need of improvement and development.

Thus the proposal for a comparative mapping of selected fields at BMC's universities, including the use of performance indicators, reflected the urge to provide the university management with better information needed for strategic and operational planning. It was agreed in a first cycle to focus on three comparatively expensive fields, namely chemistry, civil engineering and physics, because of the prominent role fields like those play for decision making at a technical university. Later on, mathematics and

mechanical engineering were added to the list. The information to be gathered was intended to comprise not only all relevant statistical data and key performance indicators (such as student-staff ratios, external research funding per capita of faculty, degrees taken compared to freshers or doctorates p.a., and so on), but also to provide a short description of courses offered and special research areas as well as of internal organization, for instance institutes. Having compiled all these data and information it should become possible to compare both performance and structures of those fields among BMC universities, and what promised to be even more attractive was that it might become possible to estimate reasonably the minimum size of faculty needed in those fields even under consideration of different strengths, focusses or profiles.

In practice, it once again soon became evident that both the use of statistical data and the terms used for courses or organizational units had to be clear and harmonized. Even then it sometimes was difficult to get the right information, because at the central level of university management they were often incomplete. The reason for this was and still is a political one, and has much to do with a very German tradition in the relationships between state and university on the one hand and between university management and departments (or 'Fakultaeten') on the other. Right from the start the task to elaborate those 'maps' in the BMC was considered very urgent, but also possibly dangerous for the standing of rectors and presidents both with respect to their universities and towards state governments. There is a widespread reservation that the state, which does not hold such detailed information on its own, would be eager to grasp them and to use the maps as a tool for decisions, above all for those on funding, investment and senior academic positions. In such circumstances, the university which is apparently the most 'efficient' could be taken as a norm that the others would have to comply with, irrespective of all the structural differences which a closer analysis might identify. In order not to provide the state with such a possibility, rectors and presidents thus tried to keep that part of BMC's work very confidential.

After having undergone several cycles of reexamination and correction, the maps of the five fields selected are now nearly completed. They contain sensitive data since the results indicate a great variation in performance, and although the BMC had interesting discussions about how this could be interpreted, and if any general conclusions for planning processes could be drawn from the data collected, it was again agreed that there should be no detailed assessment. Nevertheless the information was looked upon as very helpful for the self-improvement of universities, and there is a good chance for further work of this kind. Once the very difficult methodological problems have been solved, it is of course much easier to go on with other fields or even to work out more elaborated assessments.

As the maps produced by the BMC are strictly confidential they will be published neither in full nor under selected headings. All that was agreed upon is to report to the informal group of German technical universities on the methodological device of that topic and especially on the items investigated in order to encourage both further work on that topic with other universities and the use of benchmarking analyses in general.

While discussing this work a further project was born which could be extremely helpful in creating more transparency of costs and for operational planning. As has already been indicated, due to the budgeting systems currently in operation German universities have little or even no knowledge of the cost of filling a vacancy in senior faculty. This is even more regrettable as it is clear already that in the near future due to a rapidly increasing number of old-age retirements (above all in the fields of engineering and sciences) there will be a great number of vacancies which will cause considerable problems to fill appropriately.

Therefore universities are interested to know how much it costs on the average to fill a vacancy in say biochemistry or mechanical engineering in order to estimate the costs which will have to be met in future years. Of course, these data can neither be generalized nor normative because costs depend on a number of local conditions - if, for instance, there have to be new labs built and equipped. But it would be of great value to have an approximation and furthermore to document all the costs associated with filling a vacancy for, say, for the first two years following appointment. Thus the BMC developed a scheme according to which its members will conduct a survey of all ongoing appointments, and which furthermore could be useful for inter-university comparisons.

## **Outlook**

In Europe benchmarking in higher education so far is neither very common nor do the examples described show a pattern of strict benchmarking as it is described in textbooks and case studies from industry. However, it seems worth undertaking further applications to different fields of higher education both as a response to greater competition among HEIs, and also because of the calls for increased institutional efficiency and greater transparency in operation that are likely to become a serious challenge to university management.

Benchmarking studies conducted so far have yielded valuable insights in different academic or managerial practices at individual institutions. Even when they have failed to discover indisputable best practices, benchmarking has fostered controlled self-observation by means of comparisons, and reflecting an institution's practices from different angles.

On the whole, in the examples described in this article the benefits clearly exceeded costs. On the other hand, it must also be pointed out very clearly that the comparisons that benchmarking relies upon are anything but easy. Even in a benchmarking project which is deliberately process oriented rather than outcome oriented there is extensive work to be undertaken on the grounds of comparisons in order to define the subjects, targets, terms, and data needed. The difficulties involved in this should not be underestimated, and the failure to do so may result in a great danger of becoming frustrated, in project failure, or in producing results which are sheer nonsense. Coming to terms with details of different definitions and practices is a requirement that is not

easy to accomplish within one country and language, and of course it is much harder to do so in an international benchmarking project. Nevertheless, bearing these problems in mind the experience of current European initiatives suggests that it seems very worthwhile to continue with benchmarking in higher education.

## **CHAPTER 7: COMMONWEALTH UNIVERSITY MANAGEMENT BENCHMARKING CLUB**

*Cliff Wragg*

### **Background**

The Commonwealth University Management Benchmarking Club was formed in 1995 by the Commonwealth Higher Education Management Service (CHEMS), working in collaboration with benchmarking advisers from Price Waterhouse. It commenced its work in 1996. Its purpose and aims were, and remain, as set out in the Members Handbook, namely:

*"PURPOSE*

*To measure and promote excellence in university management.*

*THE CLUB AIMS TO HELP MEMBERS:*

*To identify and promote best practice.*

*To share ideas and increase awareness of alternative approaches.*

*To gain benefit from an international base of experience and innovation.*

*To learn from others what works and what does not.*

*To research, and continually improve, ways of comparing with each other.*

*THEREFORE, THE CLUB WILL:*

*Provide frameworks for annual assessments and reviews.*

*Analyse members' responses and provide feedback on relative performance and best practice.*

*Arrange a forum for members to discuss and debate improvements in performance."*

In the first year (1996), membership was canvassed via the Association of Commonwealth Universities networks, and this produced nine inaugural members of the Club. These were:

Australia: Queensland, RMIT, Sydney, Victoria University of Technology

Canada: Waterloo

Hong Kong: Hong Kong University (HKU)

South Africa: Cape Town (UCT), Natal

UK: Liverpool

New Zealand: Auckland, whilst not participating in the benchmarking process, attended the workshop.

In the second year (1997), membership changed and increased as a result of the initial publicity given to the venture. Enquiries from interested universities resulted in there being 11 members, namely:

Australia: Queensland, Victoria University of Technology  
Canada: Calgary  
Hong Kong: HKU  
New Zealand: Victoria University of Wellington  
South Africa: Natal  
UK: Liverpool, Durham, Leeds Metropolitan, Nottingham, UMIST

### **The Concept of the Club**

The concept of a benchmarking 'club' requires a common set of understandings and expectations, indeed the term was chosen by CHEMS because it suggested a shared set of interests and a co-operative form of working. Some of these expectations are described below, but the essential feature of the initiative is that each member university is in the club because it wishes to improve its own managerial performance.

This particular club is not driven by pre-existing performance measures, or indicators, nor is it a tool to be used for assessment purposes by the providers of funding. Consequently, provided the club retains a measure of confidentiality (amongst members), each member is expected to be totally open and honest about their own performance. Without such honesty, the exercise would lose much of its point. It is by displaying areas of weakness, alongside areas of strength, that the mutual benefit can be derived by all members.

The process calls for each university to submit a description of its management processes, in respect of the topic under review, so that their performance can be analysed and assessed by the team of assessors. This is then followed by the key part of the process, namely a workshop at which all members can discuss the variety of approaches adopted, the comments of the assessors, and any significant issues associated with that topic.

Once elements of best practice have emerged or been identified, members can take that knowledge away and seek to implement any appropriate changes back at their own university. The club is intending to review the success of this vital stage when it revisits topics in future programmes.

### **Progress**

It was clear from the outset that the club and its members would have to develop the techniques and refine the processes to achieve the aims of the club. In well established benchmarking processes, the essential starting point is the agreement of a set of criteria, or benchmarks, against which all submissions can be assessed. In most cases, the

criteria are predominantly quantitative, or if qualitative, rely on well understood and established benchmarks of performance, such as some definition of 'best in class'.

For universities, this was, and is still a relatively new concept, and little has yet been done to establish such benchmarks when considering the effectiveness of managerial processes. Hence, the club was seeking to 'trail-blaze' and may be regarded as developmental and experimental. However, that said, the first years' experience provides a great deal of useful insights into the ways in which different universities approach similar problems, deal with externally changing circumstances, and seek to improve their effectiveness.

### **The Methodology Used by the Club**

In both years, the first stage of the benchmarking process was the identification of the topics to be addressed. In the first year these were suggested by CHEMS on the basis of information obtained from both members and potential members, but in subsequent years topics have been, and will continue to be, determined by the members themselves.

In first year the topics were:

- Strategic planning
- Human resources
- Non-academic needs of students
- External impact
- Research management

In the second year, the Club elected to explore only four topics. They were:

- Financial management
- Teaching and learning
- Resource allocation
- Management information systems (MIS)

For the forthcoming third year the topics will be:

- Estates and facilities
- Library and information services
- Student administration
- Internationalisation

It is anticipated that in the fourth year (1999), some of the first year's topics will be revisited, and a rolling programme will become established.

For each topic, a framework of open questions was devised (by invited assessors in the first year, and by club members themselves, assisted by assessors, in the second year).

The chosen format is to have each topic divided into five sub-topics, covering aspects such as policy and strategy, implementation (eg management structure), monitoring and review, communication etc. (As an example, a page from the first year handbook is appended as 'Attachment 1')

Each university is then required to supply a (brief) written submission, backed up, if necessary, by supporting material from the university's existing documentation, responding to the questions, and highlighting anything perceived to be a strength or weakness on their part. The emphasis on existing documentation is important, not only to limit the amount of work required from members, but also to ensure that the benchmarking process looks at current practice and not future intentions. Each university in the second year programme provided a set of contextual data which aimed to describe the nature of the university, as an aid to judging 'fitness for purpose'.

During this stage, and the marking stage, there were two key guiding principles:

- Judgements made by the assessors were based on the facts as declared by the University, ie the submissions were taken at face value.
- Any factors known personally to an assessor, but not included in the submission, were disregarded for assessment purposes. This was to preserve fairness and balance.

At this point of the process, there was a significant variation in methodology between the first two years. In the first year, the assessors awarded percentage marks in respect of the strengths of responses to the framework questions. These were assessed by considering the 'approach', the 'application', and the 'outcomes' actually achieved, defined as:

- **Approach** is the policy or technique adopted, and whether it is right for the task (fit for purpose).
- **Application** is the extent to which it is applied across the university.
- **Outcome** is, obviously, how successful it is at achieving the objectives, but it also includes the extent to which it is monitored to ascertain when it might be necessary to adapt the approach to meet changing circumstances (ie continues to be fit for purpose).

The approach to marking was based on that used by the European Quality Awards scheme, managed by Price Waterhouse, and the marking grid is appended as 'Attachment 2'.

Additionally, in the first year, reports detailing their acknowledged strengths, and areas for improvement were provided to each club member, in addition to a 'composite model of good practice' which was made available to all members. This composite report,

listed all the key strengths, and provided the basis for detailed discussion of the major issues associated with each topic at the workshop of members in October 1996. Examples of a page from an individual report, and the composite, are appended as 'Attachment 3' and 'Attachment 4' respectively.

The workshop was structured to provide a session on each of the topics. Each session commenced with a brief presentation from one of the club members, detailing how their own university managed the particular topic (to set the scene for the debate that would follow). Key issues were highlighted by the assessor team, and the members then discussed these and any other relevant issues, before arriving at some degree of consensus as to what may be regarded as good practice.

For the Club's second year, following debate at the 1996 workshop, it became clear that the awarding of 'marks' was not of primary importance to members, given the key objective of improving performance. The methodology was accordingly modified, so that, instead of generating percentage marks, the assessors banded the performance of members, against each sub-topic, (whilst retaining the 'Approach, Application, and Outcome' analysis) into three groups in accordance with the chart in Figure 1 (which itself is a condensed version of the one used in the first year). The intention of the banding approach was simply to identify those members which might be regarded as 'best in group'.

**Figure 1: Criteria of 'Approach, Application, and Outcome'**

<b>Approach</b>	<b>Application</b>	<b>Outcome</b>	<b>Mark</b>
Anecdotal, no system evident. Tending to be reactive.	Anecdotal, some pilot areas, or one department only. Numerous gaps	No data, or some trends in some areas, but not strong	(blank)
Systematic approach, some integration with other processes,	Covers most areas of the university, no major gaps, but work in some areas still under developed	Positive trends in most areas, few adverse trends, good monitoring procedures	+
Robust systematic approach with evidence of routine refinement. High level integration	All areas of university covered, with negligible gaps. Few variations or weaknesses	Strong trends sustained. Strong in all key areas. Leading edge when compared to others	*

Other refinements in the second year included moving the workshop to earlier in the process, to allow the debate to influence the final report for the year, and thus capture the consensus of the group. Assessors also attended the workshop to present their reports on the topic.

A draft report was produced for the second year workshop (held in August 1997) which consisted of a composite statement of elements of good practice gleaned from all the responses. That again provided a basis and stimulus for debate. The final report that subsequently went to members contained a summary of the discussions at the workshop highlighting the main issues raised, together with series of statements setting out the key features of what the members and assessors agreed to be good practice.

After listening to the workshop discussions and receiving the final summary statements of good practice, each university in the second year programme was invited to declare a 'self-assessment' mark (using a simple 1-5 scale) against each 'good practice' element. This has been included in the final report and allows each member to make contact and collaborate with a colleague from a university professing particular strength in a topic, if they are seeking to make improvements in their own approach.

### **Emerging Issues**

There are four main issues emerging from the experiences of universities so far. First, there is no unanimity about the scale of effort required. Many universities have dropped out of NACUBO because they found the clerical analysis and costings too demanding. CHEMS was influenced by this feedback and designed its Club to use material that already existed and to ask for a relatively small volume of information. Yet, there is another lobby which say: this is not enough, we want to see the details of everybody's best practices, this is the whole point of joining!

Second, the question of scoring and assessing is fraught with sensitivities in a university context. It starts when members ask who else is a member and say that they only want to be compared with peers! This misses the point in that if one is looking at activities and processes, the big universities may have a lot to learn from the small or the world class from the tiny local institutions. Prestige and status are not synonymous with managerial excellence, as we all know. Nonetheless, in the real world peer groups are important.

Third, the next hurdle is that of the managerial language which benchmarking has to adopt, and which is considered in more detail in Chapters One and Two. Practical outcomes for the Club are to try ensure that the criteria and processes for scoring give no weight to jargon, and also that assessors focus on the way each institution chooses to carry out what it has agreed as its strategy, rather than what might be thought good practice managerially.

Finally, where the basis of benchmarking is quantitative comparisons, it is necessary to have contextual indicators in order to interpret some of the statistics. These can explain why some of the figures are at one extreme of a range. For example, Nipissing University and Toronto have very different percentages of their recurrent costs devoted to administration, due to their respective sizes.

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- <sup>i</sup> *Higher Education in the learning society*, Report of the National Committee of Inquiry into Higher Education, NCIHE, 1997, p 163 (Recommendation 25)
- <sup>ii</sup> *Ibid.*, p 243 (Recommendation 57)
- <sup>iii</sup> See Cave, M. and Hannay, S. et al, *The Use of Performance Indicators in Higher Education* (3rd ed.), Higher Education Policy Series 3, Jessica Kingsley Publishers, 1997, for a fuller discussion of the developments summarised here.
- <sup>iv</sup> As defined by HEMS' Chairman, Mr James R. G. Wright, Vice-Chancellor, University of Newcastle, in correspondence with CHEMS
- <sup>v</sup> *Ibid.*
- <sup>vi</sup> See, most recently, Alderman, G., League tables merit improvement, in *Times Higher Education Supplement*, 19 September 1997.
- <sup>vii</sup> O'Leary, J. (ed.), *The Times Good University Guide 1997*, Times Books, London, 1997
- <sup>viii</sup> Though the 1997 edition uses a different source.
- <sup>ix</sup> Harvey, L. and Knight, P. T., *Transforming Higher Education*, The Society for Research into Higher Education & Open University Press, 1997, p 93
- <sup>x</sup> NCIHE, op. cit., p 116 (Recommendation 8), p 128 (Recommendation 14)
- <sup>xi</sup> Jackson, N., Burge, S. and Tannock, J., *Evaluation and Development of Departmental Quality Management Systems: a case study of six engineering departments*, 1996 (unpublished). The final report will be published in Jackson, Burge and Tannock, *Managing Quality and Standards in UK HE: Use of Benchmarking to Improve Academic Practice*, 1998 (forthcoming)
- <sup>xii</sup> Cheetham, D. L., The potential of benchmarking for higher education libraries (paper given at Training Together 3 Meeting, Manchester Metropolitan University, 22 April 1993), reproduced in *SCONUL Newsletter*, pp 67-73.
- <sup>xiii</sup> Town, J. S., Benchmarking as an Approach to Quality, in Knowles, B. (ed.), *Routes to Quality*, BUOPOLIS 1, Bournemouth University, 1996, pp 71-79.
- <sup>xiv</sup> Garrod and Kinnell Evans, *Towards Library Excellence - Best Practice Benchmarking in the Library and Information Sector*, British Library Research and Development Division (BLRDD) Report, 1995
- <sup>xv</sup> Poll, R., and de Boekhurst, P., *Measuring Quality: International Guidelines for Performance Measurement in Academic Libraries*, IFLA Publications 76, K. G. Saur, Munich, New Providence, London and Paris, 1996
- <sup>xvi</sup> Information kindly supplied by Derek J. Phillips, Director, Domestic Services Division, University of Exeter.
- <sup>xvii</sup> Further information on FMGC is available on the Web at <http://www.shu.ac.uk/schools/urs/ufmr/people.htm>
- <sup>xviii</sup> Based on *Management Information: Volume 3: Comparative Statistics*, University of Essex, 1997, kindly supplied by the University.
- <sup>xix</sup> *Treasury Management: Value for Money*, National Report and Management Review Guide, HEFCE, Bristol, 1996. *Energy Management in the Higher Education Sector*, National Report and Management Review Guide, HEFCE, Bristol, 1996
- <sup>xx</sup> Toyne, P., *Environmental responsibility: an agenda for further and higher education*, Report of Committee appointed by the Department of Education and the Welsh Office, HMSO, London, 1993
- <sup>xxi</sup> *Procurement Benchmarking for Higher Education*, HEFCE, Bristol, 1997