

Compliance or culture?: Achieving Quality in Academic Library Services

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Personal perspectives

- Performance measurement, performance improvement, or performance?
 - SCONUL ACPI
(<http://www.sconul.ac.uk/activities/performance/>)
 - Toolkit(s) for UK & Irish Libraries (e.g. Town, 2004a, 2003, 2000a, West, 2001)
- Philosophical and social
 - 'Behaviour follows measures' (Town, 2000b)
 - Qualitative and quantitative measurement (Town, 2004b)
 - Sceptical views (Town, 2002a)
- Managerial
 - Contractual context: quality delivery & competitive pricing
 - Institutional Strategy & decision making

Introduction & Summary

- UK approaches to Quality & QA in HE
- SCONUL ACPI Initiatives
- Measurement Frameworks
- Practical experience

UK HE Quality & QA

Approaches to Quality

- Quality Assurance
 - The Quality Assurance Agency (QAA)
 - ISO Standards
- Established Patterns of Peer Review
 - Research Assessment Exercise
- Batteries of Indicators
 - HESA
 - SCONUL & HELMS
- Quality Culture
 - TQM
 - Investors in people

UK HE Institutional QA

- Institutional Audit
- QAA Subject Reviews (TQA/AQE)

Now replaced by

- “Light touch” regime (see <http://www.qaa.ac.uk/>)
 - Self Evaluation Document (SED)
 - Discipline Audit Trails (DATs)
 - QAA Visit methodology

Dimensions of Assessment

- Course Structure & curriculum
- Learning & Teaching Strategy*
- Assessment strategy & methods
- Student progression & achievement*
- Learning Resources & Support***
- Quality enhancement & standards maintenance** *(includes student views)*

Examples

- Institutional Audit
- Management “Excellent”
- Other Subjects Allied to Medicine 21
- General Engineering 20
- Information & Library Management 24
- Learning Resources achieved 4s throughout

SCONUL ACPI Initiatives

Eight performance improvement tools

1. Quality Assurance

Guidance from QAA for Auditors

- Reviewers should ask:
 - Is there an overall strategy for the deployment of learning resources?
 - How effectively is learning facilitated in terms of the provision of resources?
 - Is suitable teaching and learning accommodation available?
 - Are the subject book and periodical stocks appropriate and accessible?
 - Are suitable equipment and appropriate IT facilities available to learners?
 - Is appropriate technical and administrative support available?
- They should then evaluate the appropriateness of the learning resources available, and the effectiveness of their deployment.

Guidance from SCONUL for Auditors

- 1 Strategy, planning and liaison
 - 1.1 Is there an overall strategy for the deployment of learning resources?
 - 1.2 Does this strategy support the intended programme outcomes?
 - 1.3 Is it being effectively facilitated in terms of the provision of learning resources and thus appropriate learning opportunities for these students?
 - 1.4 How do the computing and library services become aware of course development and review?
 - 1.5 How do the computing and library services become aware of the intended learning outcomes?
 - 1.6 Do these arrangements work well, meeting the real needs in a timely fashion?

Guidance from SCONUL for Auditors

- 1 Strategy, planning and liaison
 - 1.7 How do the library, computing and teaching staff communicate with each other, and how well does this work?
 - 1.8 How do the library and computing staff communicate with students, and how well does this work?
 - 1.9 In what ways are students and staff encouraged and enabled to make effective use of the range of library and computing services available?
 - 1.10 What mechanisms are in place for making teaching staff aware of the opportunities which new information and communications technologies offer to add value (appropriateness and effectiveness) to teaching delivery and student learning opportunities?

Guidance from SCONUL for Auditors

- 2 Evaluation and feedback
 - 2.1 How are the appropriateness and effectiveness of computing and library services to the intended learning outcomes and to the quality of student learning opportunities evaluated?
 - 2.2 How is this fed back into service improvement?

SCONUL Guidelines for QAA Institutional Audit in England

Guidance from SCONUL for Auditors

- 3 Provision for the courses being evaluated
 - 3.1 Relevance of learning materials
 - 3.1.1 Are the available library and computing resources effective (quality) and adequate (quantity) to support the taught courses, in particular in respect of books, periodicals and electronic information resources, datasets, software, on-line learning environments and equipment?
 - 3.1.2 How are these learning resources, and the means of their delivery, selected and updated?

Guidance from SCONUL for Auditors

- 3.2 Availability and accessibility
 - 3.2.1 How well-matched are the availability and locations of the services to the needs of the students?
 - 3.2.2 How accessible are the library and IT facilities for all groups of students (e.g. part-time, disabled, distance learning)?
 - 3.2.3 How adequate (quantity) and effective (quality) is the library study accommodation for student needs?
 - 3.2.4 How adequate (quantity) and suitable (quality) are the workstation and other computing and data networking facilities for student needs?
 - 3.2.5 If the course is fully delivered by distance learning, do its students have adequate and effective provision of learning resources?

Guidance from SCONUL for Auditors

- 3.3 User support
 - 3.3.1 What skills training is offered to students and staff?
 - 3.3.2 What arrangements are in place for promoting services and responding to enquiries? How effective are they?
 - 3.3.3 What steps are taken to enhance and update skills of library and computing staff in order to ensure the quality of support services?

2. SCONUL Statistics

Data Elements

- Library provision & use
- Stock - provision
- Stock - expenditure
- Stock - use
- Interlibrary activity
- Enquiries
- Staff workload
- Efficiency measures
- Expenditure ratios
- Net expenditure
- Percentages of total library expenditure
- Percentage breakdown of total information expenditure

ADDITIONS TO STOCK

2c. Number of books and pamphlets added to stock

SHOW NOTES ▼

2d. Number of unique serial titles received by subscription

SHOW NOTES ▼

2e. Number of unique titles received as printed items only

SHOW NOTES ▼

2f. Number of unique titles received in electronic form only

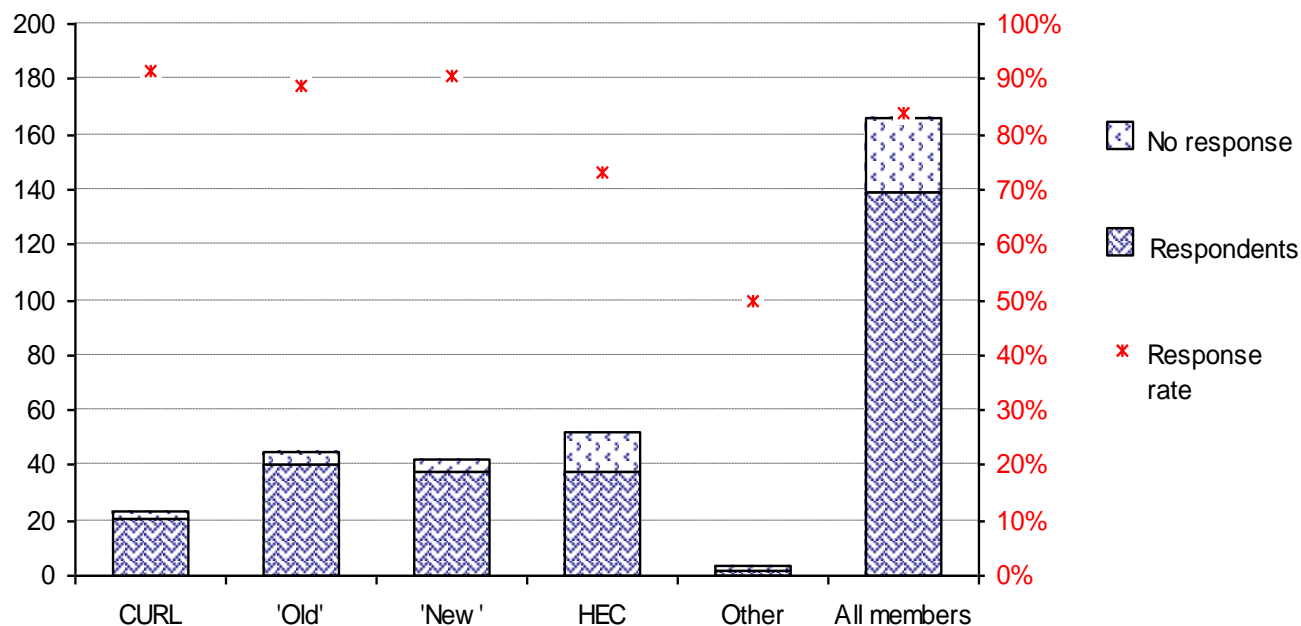
SHOW NOTES ▼

2g. Number of unique titles received in both print and electronic form

SHOW NOTES ▼

2h. Metres of archives and manuscripts received

SHOW NOTES ▼



Automation Project

- Project aimed to automate reports from the statistics for members
- Data input on a Web-based form
- Once complete, institutions can interrogate the database, run reports, and produce graphs and charts relevant for their local needs

Application of SCONUL Statistics

Napier University Service Standards:

- SCONUL Statistics used to measure library performance
- Performance target:
 - At least 1400 reader places will be provided...
- Result:
 - In the SCONUL year 1999-2000 some 1451 reader places were available...

3. National Performance Indicators (HELMS)

Background to Project

Project aimed to develop a small set of performance indicators for academic libraries, primarily (but not exclusively) aimed at the funding bodies and Vice-chancellors and Principals, using the indicators recommended in *The Effective Academic Library* as a starting point.

Measures

- Management Statistics
- Library Contextual Data
- Institutional Contextual Data

Measures Defined

- Management Statistics
 - Total library expenditure per FTE user
 - Expenditure on information provision per FTE user
 - Expenditure on staffing per FTE user
 - Seat hours per week per FTE user
 - Loans per FTE user
 - Inter library loans (ILL) as a percentage of all loans

Measures Defined (2)

- Library Contextual Data
 - Number of libraries
 - Space occupied (m²)
 - Size of collection (volumes)
 - Number of seats available
 - Number of workstations
 - Total library expenditure

Measures Defined (3)

- Institutional Contextual Data
 - Number of students (FTE)
 - Percentage of post-graduate students
 - Percentage of part-time students
 - Number of academic and research staff (FTE)
 - Proportion of Funding Council funding for research

Library Management Statistics

Table 1: Library Statistics 1997/98 (cont)

		HEA statistics		SCONUL Library	
		Expenditure on Central Libraries and Information Services per FTE User (£)	Total Library Expenditure per FTE User (£)	Expenditure on Information Provision per FTE User (£)	Expenditure on Staffing per FTE User (£)
51	The University of Keele	158	185	73	72
52	The University of Kent at Canterbury	264	258	107	102
53	Kent Institute of Art & Design	188	#	39	#
54	King Alfred's College, Winchester	216	#	43	#
55	King's College London	268	358	97	#
56	Kingston University	224	218	70	171
57	The University of Lancaster	232	225	102	115
58	Leeds Metropolitan University	187	#	#	196
59	The University of Leeds	324	350	111	1
60	The University of Leicester	259	278	115	133
61	The University of Lincolnshire and Humberside	337	#	63	#
62	Liverpool Hope	160	152	44	94
63	Liverpool John Moores University	208	201	59	112
64	The University of Liverpool	202	191	87	95
65	London Business School	478	491	198	264
66	University of London (Institutes and activities) (1)	4285	#	#	#
67	London Guildhall University	244	#	53	#
68	The London Institute (2)	240	445	136	214
69	London School of Economics and Political Science	445	#	#	#
70	London School of Hygiene and Tropical Medicine	519	#	#	#
71	Loughborough College of Art and Design	124	#	1	1
72	Loughborough University	317	232	111	96
73	University of Luton	184	164	86	87
74	The University of Manchester Institute of Science & Technology	152	208	62	102
75	The Manchester Metropolitan University	251	187	64	92
76	The Victoria University of Manchester	249	267	103	133
77	Middlesex University	264	231	77	112
78	The University of Newcastle-upon-Tyne	401	374	153	161
79	Newman College	221	80	16	38
80	The University of North London	264	#	52	108
81	North Riding College Higher Education Corporation	160	118	54	53
82	University College Northampton	162	166	45	79
83	Northern School of Contemporary Dance	47	#	18	#
84	The University of Northumbria at Newcastle	206	205	68	107
85	Norwich School of Art and Design	236	222	33	133
86	The Nottingham Trent University	160	#	1	1
87	The University of Nottingham	257	258	106	124
88	The Open University	207	38	15	17
89	Oxford Brookes University	214	212	77	110
90	The University of Oxford	842	274	174	480
91	The University of Plymouth	230	196	78	101
92	The University of Portsmouth	167	152	53	78
93	Queen Mary and Westfield College	254	#	120	103
94	Ravensbourne College of Design and Communication	157	#	#	#
95	The University of Reading	241	#	92	#
96	The College of Ripon and York St John	167	124	43	68
97	Roehampton Institute of HE	433	236	67	148
98	Rose Bruford College	902	90	25	53
99	Royal Academy of Music	199	#	#	#
100	Royal College of Art	417	369	71	258

* Library is not a member of SCONUL or HCLRG - not invited to contribute
 # No return received for 1997/98
 # Data element not supplied

(1) Data from University of London Library omitted - see notes
 (2) Partial data received from London College of Printing only - see notes

Library Management Statistics

Management Statistics			
Cost Hours per Week per FTE User	Loans per FTE User	£/£ in percentage of all Loans	
8.3	37	2.74	51
11.1	66	0.79	52
4.4	40	0.47	53
6.7	41	1.78	54
7.6	53	0.86	55
6.2	49	0.86	56
6.5	56	1.35	57
1	1	1	58
11.9	40	1.36	59
7.4	55	2.88	60
7.8	38	1.44	61
7.8	52	0.82	62
6.5	54	1.63	63
8.4	34	2.73	64
7.5	8	14.25	65
4.5	71	0.41	66
12.3	143	0.20	67
#	#	#	68
#	#	#	69
5.4	34	2.31	72
6.8	36	1.98	73
4.7	45	2.44	74
8.5	42	1.34	75
7.0	34	2.62	76
6.0	46	1.04	77
12.7	61	2.77	78
1.8	29	0.15	79
6.7	91	0.30	80
4.0	27	2.05	81
7.9	52	1.36	82
3.3	3	0.00	83
6.9	49	1.69	84
3.2	47	0.56	85
1	1	1	86
9.4	55	2.66	87
0.1	1	19.78	88
6.6	54	1.06	89
11.6	69	0.73	90
4.9	86	0.88	91
5.2	34	2.26	92
9.3	45	2.49	93
#	#	#	94
5.4	55	2.04	95
5.0	80	0.75	96
9.6	114	#	97
4.1	9	#	98
1.8	68	#	99
5.3	32	0.70	101



UK Higher Education Library Management Statistics

1997-98

SCONUL/HCLRG
1999

4. E-Measures project

See: <http://www.ebase.uce.ac.uk/emeasures/index.htm>

E-Measures Project

The e-measures project is part of the HEFCE-funded Libraries: Outcomes and Measures project. Its aims are:

- To assist libraries in decision-making and user support
- To develop a new set of current statistical and performance indicators for electronic information services (EIS) and to work with SCONUL to pilot, refine and roll them out to the sector as standard performance indicators for EIS.

Questions fall into three areas:

- **Provision of stock**
 - Numbers of full-text serial titles, databases, e-books, digital documents, free electronic resources catalogued by the library
- **Use of services**
 - Virtual visits, electronic enquiries, full-text article requests, database sessions and searches, use of e-books, digital documents and electronic resources available free
- **Costs**
 - Subscriptions to serials, databases and e-books, expenditure on digital documents

Progress so far

- 25 SCONUL Member libraries piloted the measures in 2003-2004
- Not all statistics tested during the project were appropriate for inclusion in the SCONUL statistics
- Several new measures incorporated into the SCONUL statistics from 2004-2005 onwards

E-Measures Pilot Libraries

- University of Central England
- University College Chester
- Cranfield University
- De Montfort University
- University of Derby
- University of East London
- Edge Hill College
- University of Edinburgh
- Glasgow Caledonian University
- University of Gloucestershire
- University of Greenwich
- Leeds Metropolitan University
- University of Liverpool
- Liverpool John Moores University
- Loughborough University
- University College Northampton
- University of Northumbria
- Robert Gordon University
- Sheffield Hallam University
- University of Sunderland
- University of Warwick
- University of the West of England
- University of Westminster
- University of Wolverhampton
- University of York

New SCONUL Statistics Measures

- 2d: Breakdown of 'unique serial titles' into:
 - print only (2e)
 - electronic only (2f)
 - print and electronic (2g)
- 2k 'number of electronic databases'
- 2l 'number of electronic books'
- 4r 'number of successful requests for full-text articles'
- 4s 'number of successful accesses to electronic books'
- 7g Breakdown of 'electronic resources' into:
 - 'subscriptions to electronic databases' (7h)
 - 'expenditure on e-books' (7j)
 - 'expenditure on other digital documents' (7k)

5. Information Literacy Performance Measures

What's important?

Critical Success Factor results

- Competent library staff
- Sufficient organisational resources
- Identifiable student outcomes
- Effective multi-dimensional partnerships
- Institutional strategic framework
- Sustained pedagogic quality

6. Satisfaction Surveys

Libra & LibQUAL+

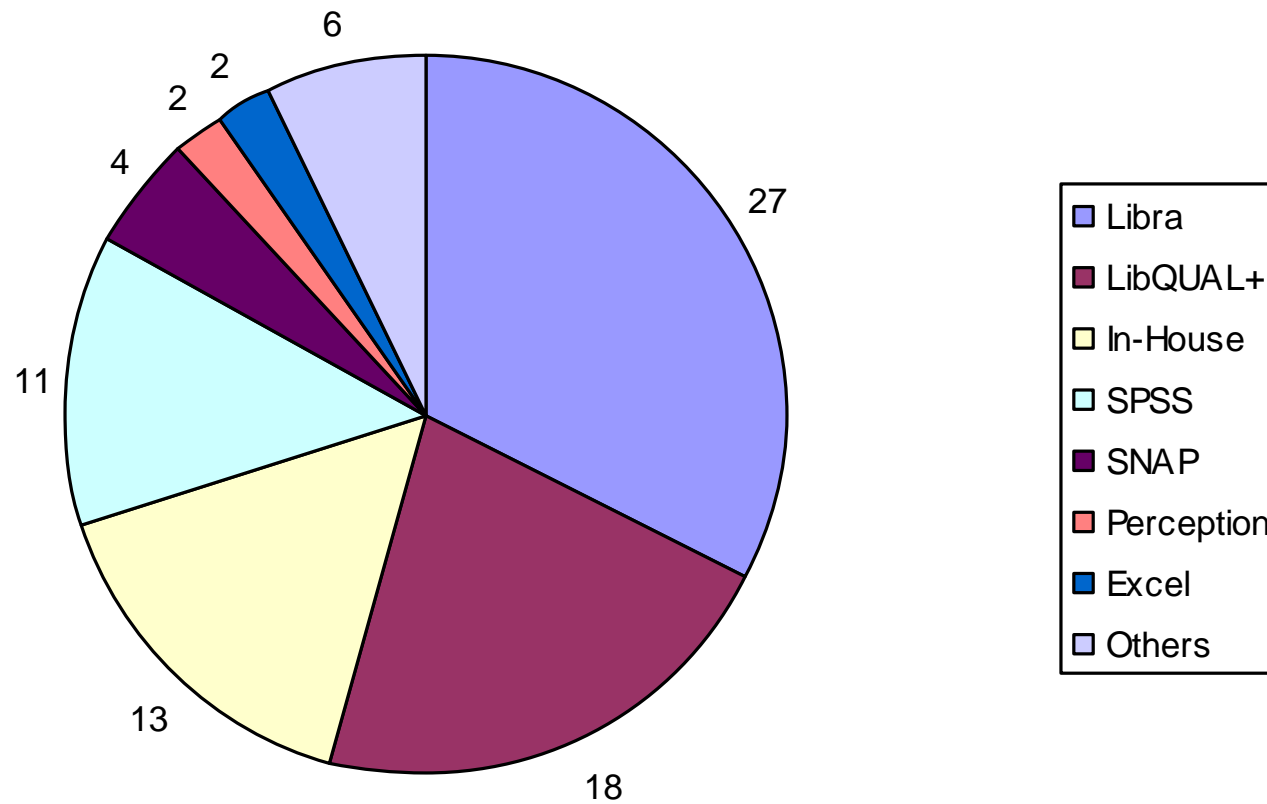
SCONUL Satisfaction Survey

- A questionnaire template for user satisfaction surveys
- Adaptable to local circumstances
- Designed for analysis by Libra software, from Priority Research Ltd.
- Rating scales for satisfaction with, and the importance of, library services.

SCONUL Survey Questions include:

- Range of books
- Range of periodicals
- Course books and essential texts
- Photocopying
- Printing
- Study facilities
- Provision of computers
- Library catalogue
- Range of electronic information services
- Opening hours
- Library environment
- Helpfulness of the library staff
- Competence of the library staff

Survey methods used in the UK



West, 2004
A Survey of
Surveys

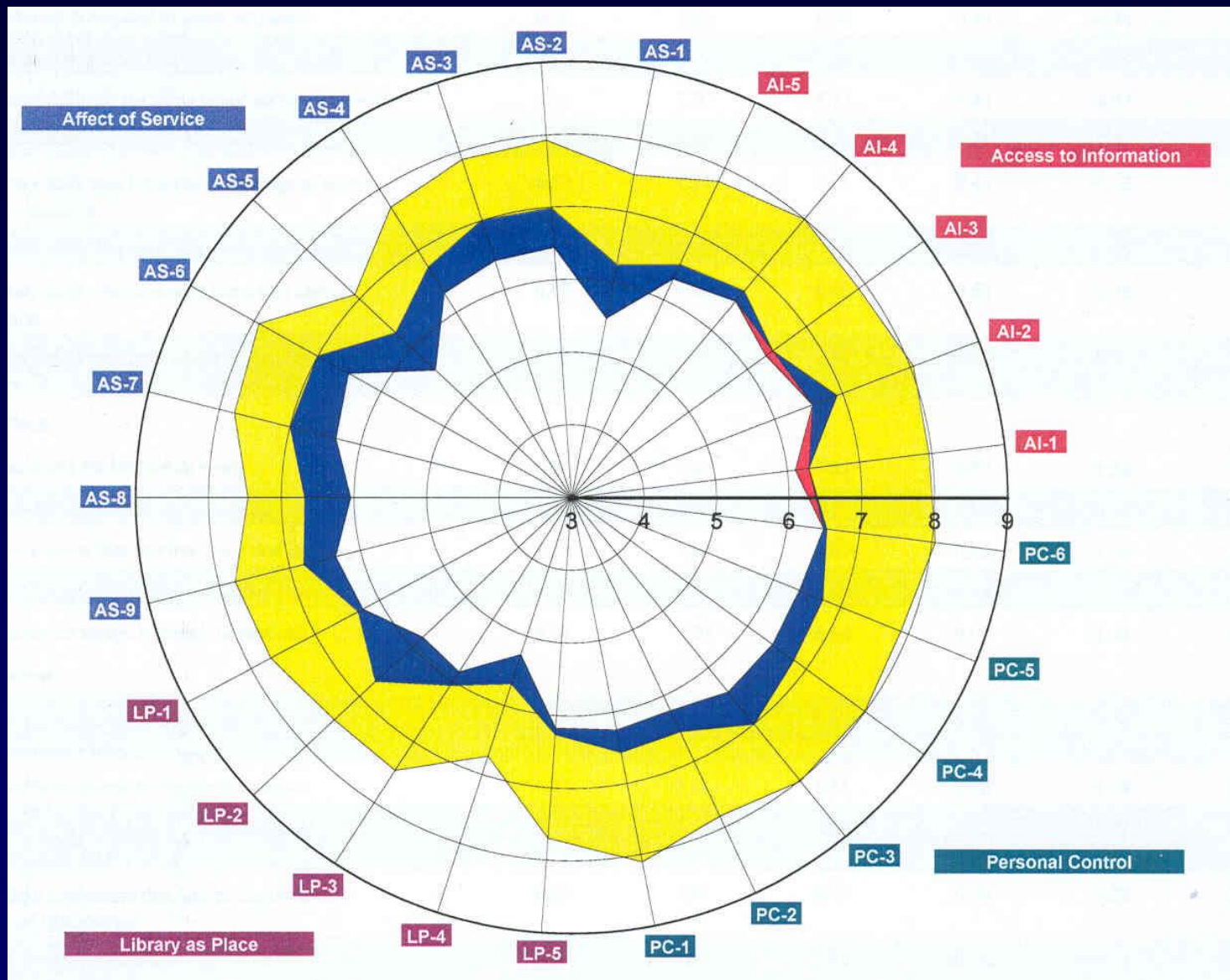
LibQUAL+ 2003

- University of Bath
- Cranfield University
- Royal Holloway & Bedford New College
- University of Lancaster
- University of Wales, Swansea
- University of Edinburgh
- University of Glasgow
- University of Liverpool
- University of London Library
- University of Oxford
- University College Northampton
- University of Wales College Newport
- University of Gloucestershire
- De Montfort University
- Leeds Metropolitan University
- Liverpool John Moores University
- Robert Gordon University
- South Bank University
- University of the West of England, Bristol
- University of Wolverhampton

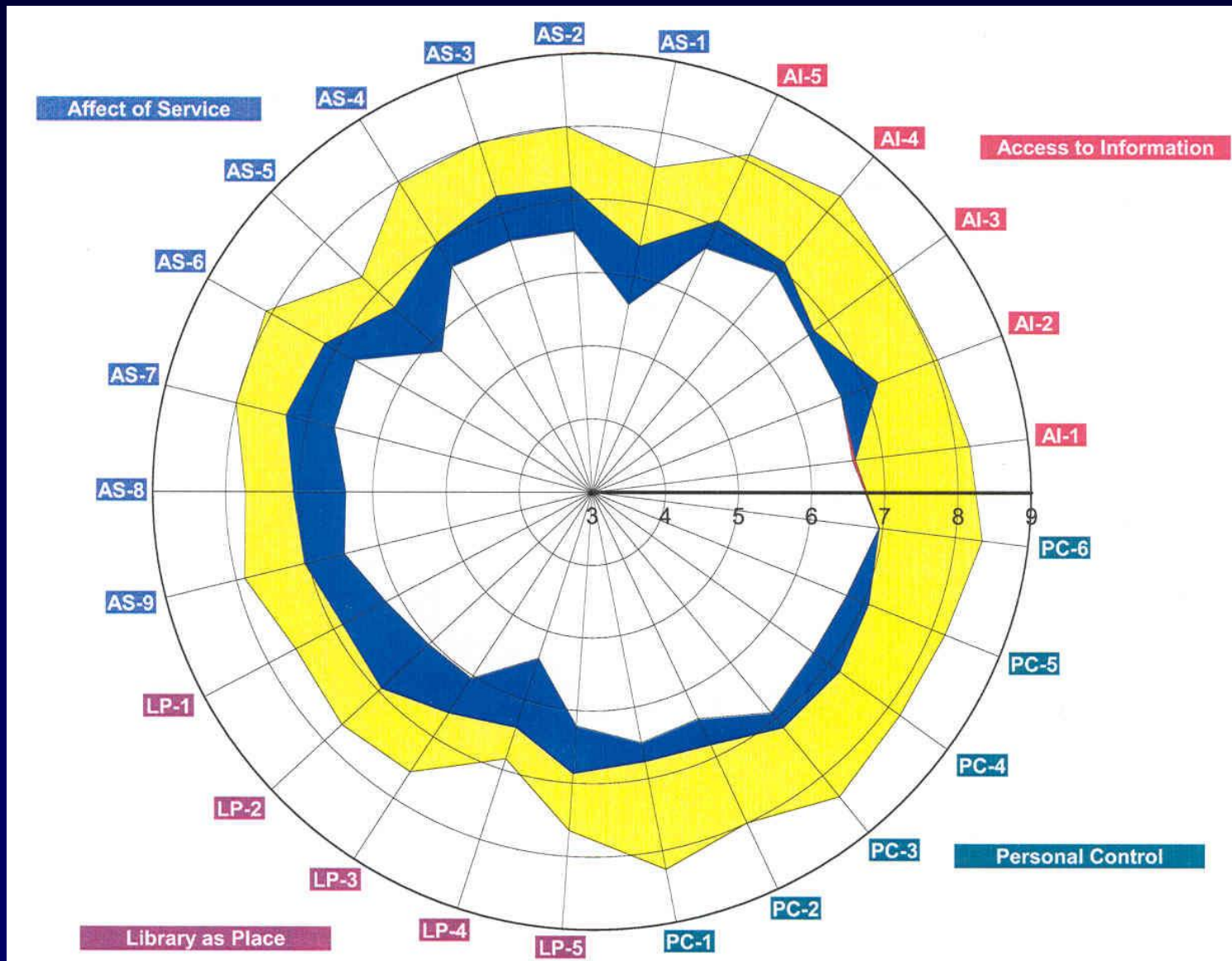
LibQUAL+ 2004

- Brunel University
- Loughborough University
- University of Strathclyde
- University of York
- Glasgow University*
- Sheffield University
- Trinity College, Dublin
- UMIST + University of Manchester
- University of Liverpool*
- Anglia Polytechnic University
- University of Westminster
- London South Bank University*
- Napier University
- Queen Margaret University College
- University College Worcester
- University of East London

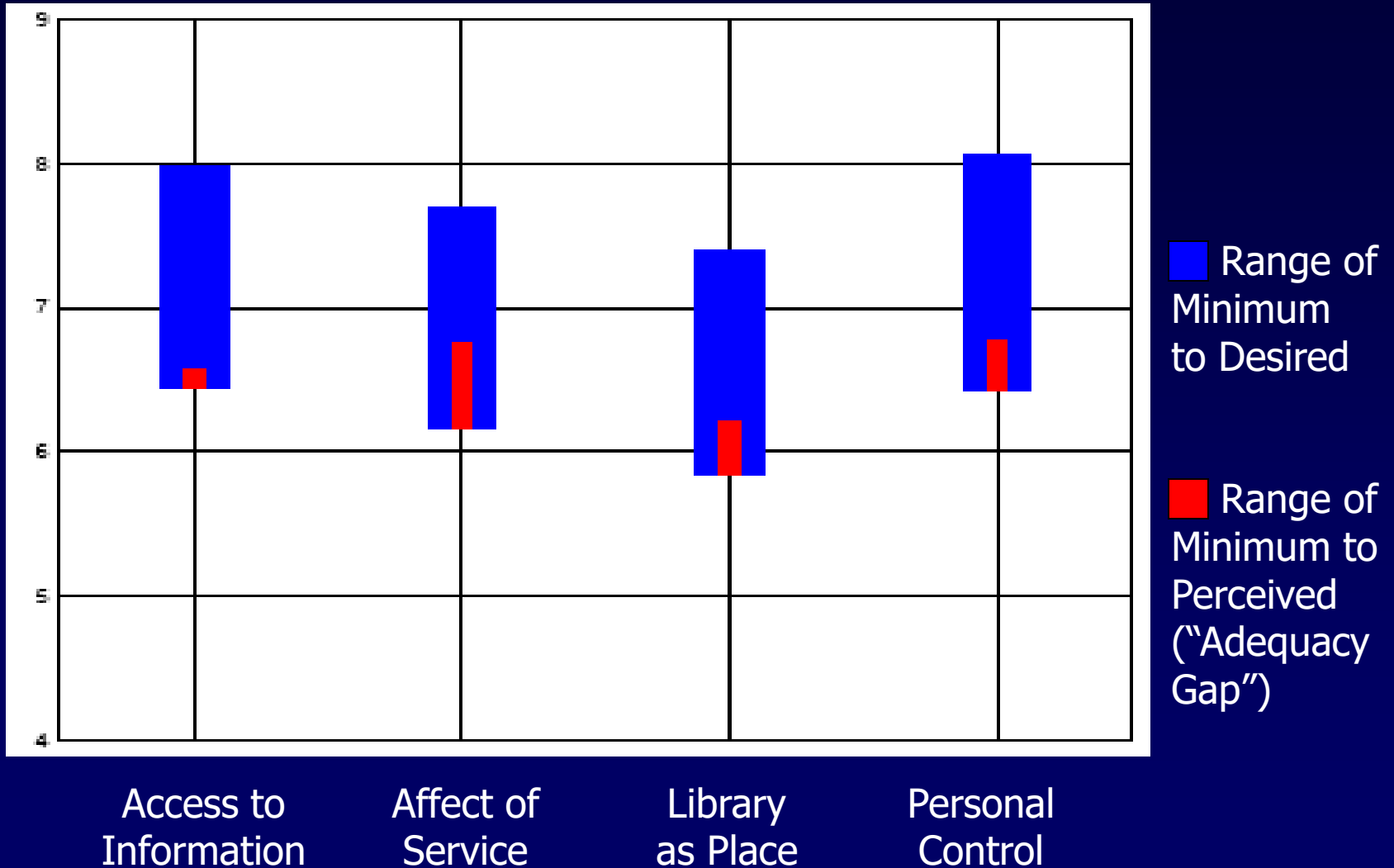
SCONUL Overall results 2003



ARL Overall results 2003



SCONUL Dimensions Summary 2003



7. Impact Measurement

Overview of Impact Measurement

- Ten libraries across the United Kingdom are participating in the first phase of an initiative to assess the impact of higher education libraries on learning, teaching, and research.
- The initiative is being undertaken under the auspices of the Library and Information Research Group (LIRG) and SCONUL
- Each of the libraries has chosen an area of their activity where they wish to assess their impact.

Impact Assessed

- The ten participating institutions have then followed a common approach to assessing impact which involves:
 - specifying objectives for what the library is trying to achieve,
 - determining success criteria,
 - establishing impact measures,
 - identifying what evidence is needed,
 - and choosing methods for gathering evidence.

Benefits of Measuring Impact

- Assessing a library's impact is not easy but the potential benefits can be considerable.
- Benefits so far discovered include:
 - Demonstrating that the library is supporting University strategy
 - Building closer links with academic staff
 - Enabling staff to gain a better understanding of academic processes

Conclusions of Impact Measurement

“Helps us to move library performance on from simply counting inputs and outputs to looking at what difference we really make.”

Payne, et al, 2004

8. Benchmarking

SCONUL Pilot Projects

Objectives:

- Practical experience
- Enlarge knowledge base
- Standard methodology
- Standard metrics
- Resource for facilitation & results

Pilot Projects

A1	Advice Desks (N)
A2	Advice Desks (S)
B1	Library Skills (N)
B2	Library Skills (S)
C	Counter Services
D	Interlibrary Loans
E	Library Environment

General Conclusions

- Possible; desirable for the improving
- Needs quality and change management framework for follow through
- Methodology not problematic
- Measures very problematic
 - Best practice & partners

General Conclusions 2

- General willingness to engage in libraries
- Ethics a barrier to take-up and publication
- Time and effort required
- Training
- Strategic level group approaches growing

SCONUL Benchmarking Manual, 2000

- Definitions & Context
- Models, including library typology
- Three phase (seven stage) method
 - Planning, comparing, acting
- Three Pilot Case Studies



SCONUL
**Benchmarking
Manual**

STANDING CONFERENCE
OF NATIONAL & UNIVERSITY
LIBRARIES

PLANNING

Defining

Partnering

Agreeing

Measuring

COMPARING

Collecting

Analysing

ACTING

Acting

The Model

Planning

Comparing

Acting

Appendices

Benchmarking Consortia

- Four Universities undertook formal benchmarking after running pilots
- Aim to provide comparative data to support decision-making and processes of continual improvement
- Also established best practice, identified improvements in processes, and evaluated customer needs.
- Project ongoing annually

Potential Measurement Frameworks

Quality perspective

‘Management by use only of visible figures ... ignores customer satisfaction, employee morale or community impact’

Deming, 1986

‘the most important and relevant data will be that provided by library users’

Shaughnessy (after Parasuraman et al)

What measures are we seeking?

Economy

Efficiency

Effectiveness

Cost effectiveness

Market penetration

Impact

Higher order effects

Abbott

Economy

Efficiency

Delivery

Integration

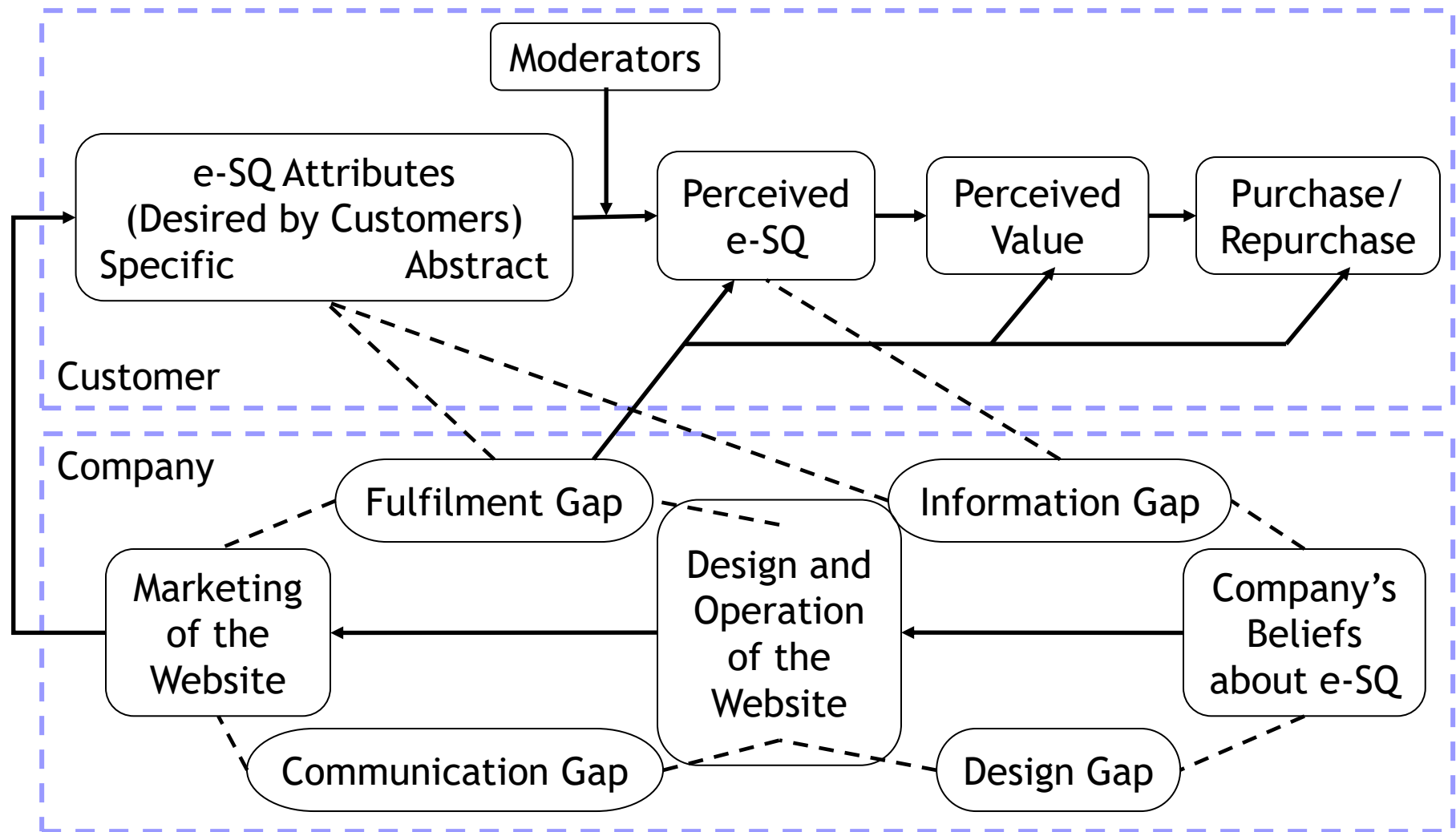
Satisfaction

Development

Ellard (EAL)

e-Service quality

Conceptual Model for Understanding and Improving e-Service Quality



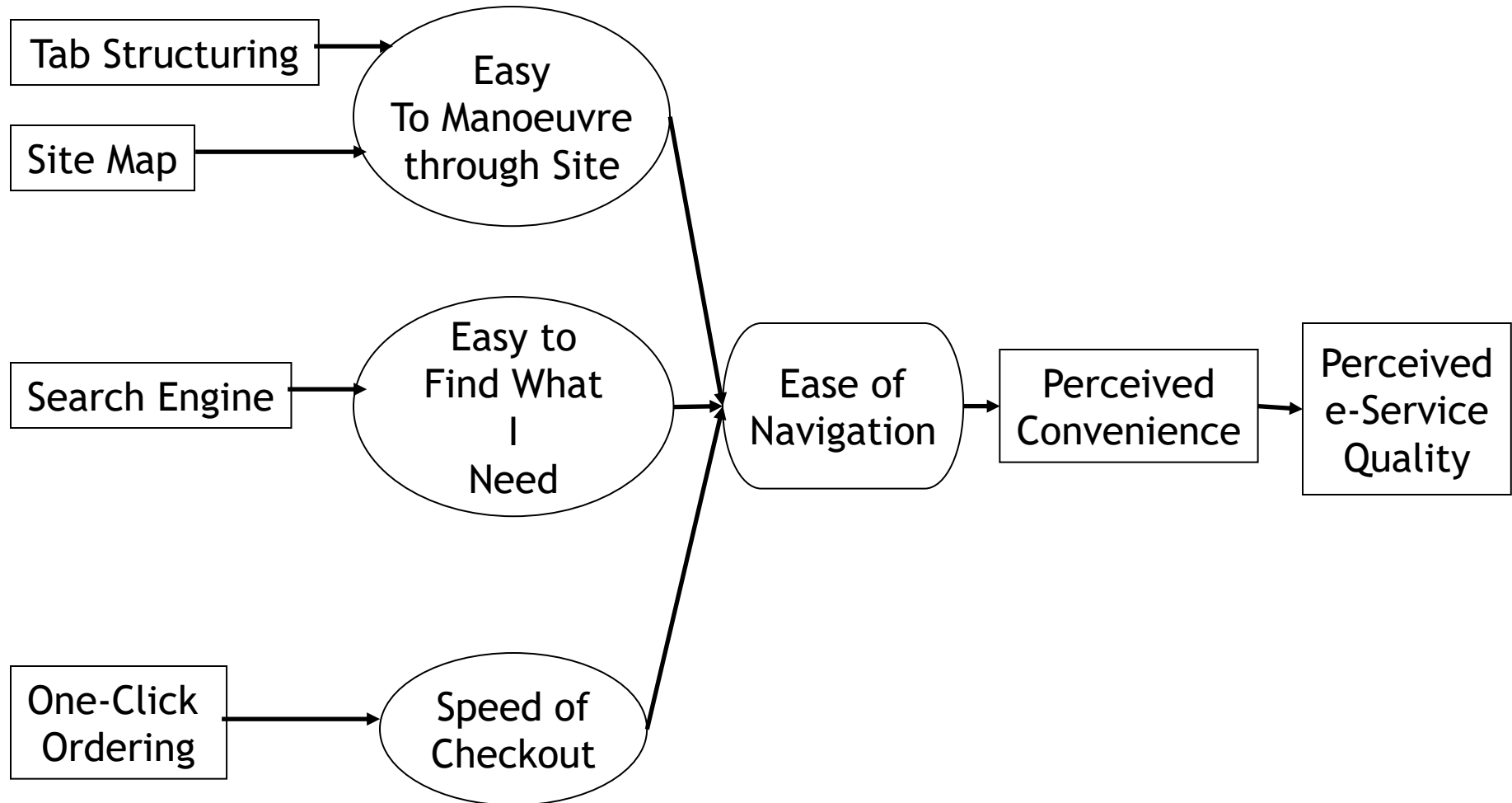
Concrete
Cues

Perceptual
Attributes

Dimensions

Higher-Level
Abstraction

Behaviours



Dimensions

- Access
- Ease of Navigation
- Efficiency
- Flexibility
- Reliability
- Personalisation
- Security/Privacy
- Responsiveness
- Assurance/Trust
- Site Aesthetics
- Price Knowledge

Zeithaml, et al, 2000

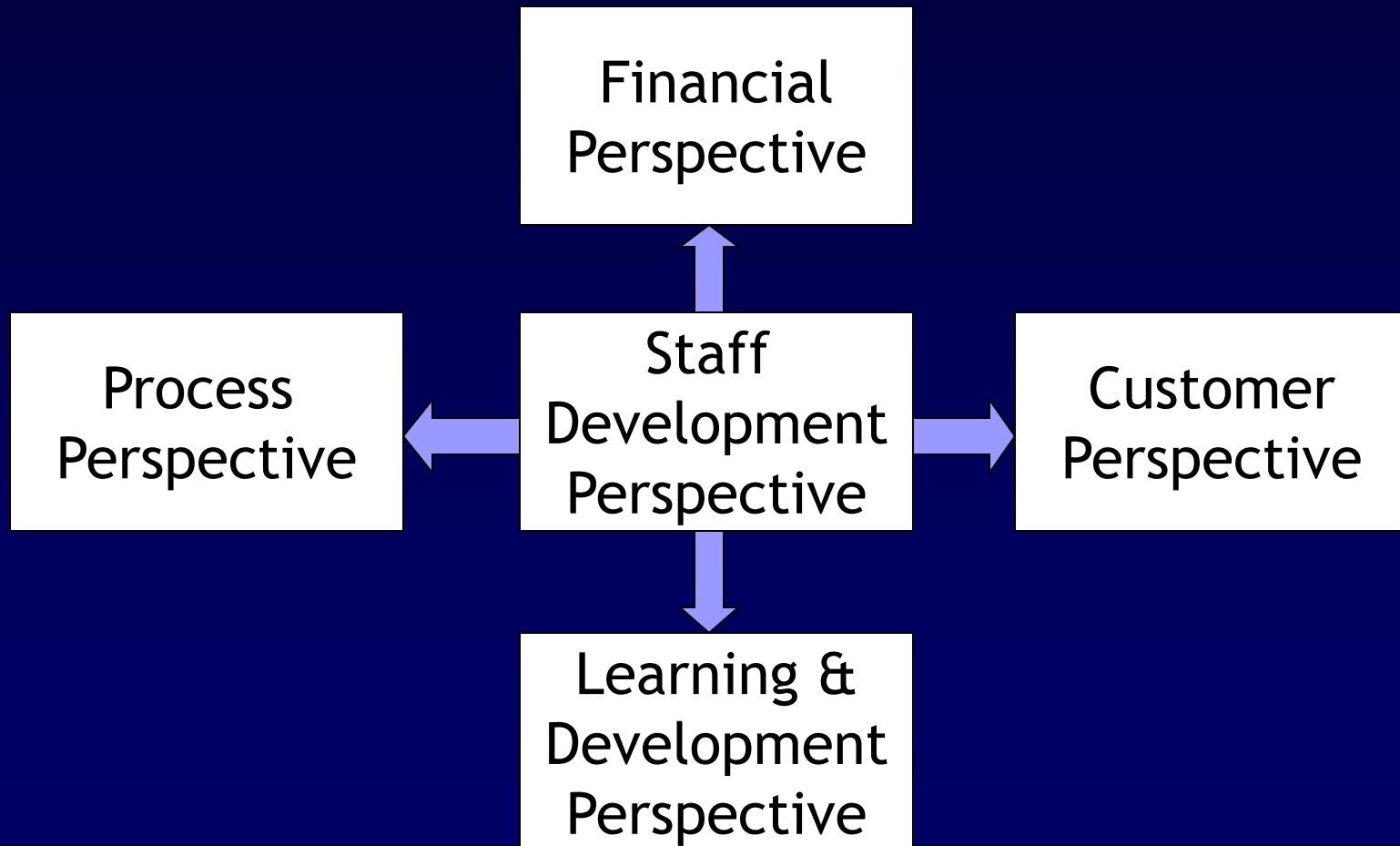
Conclusions for e-services

- We need to see ourselves as e-service providers
- We need to understand the processes this encompasses
- We need to understand the potential service gaps in this context
- We need to understand the user experience
- We need measures and instruments for this dimension of service

Balanced Scorecard

The Balanced Scorecard

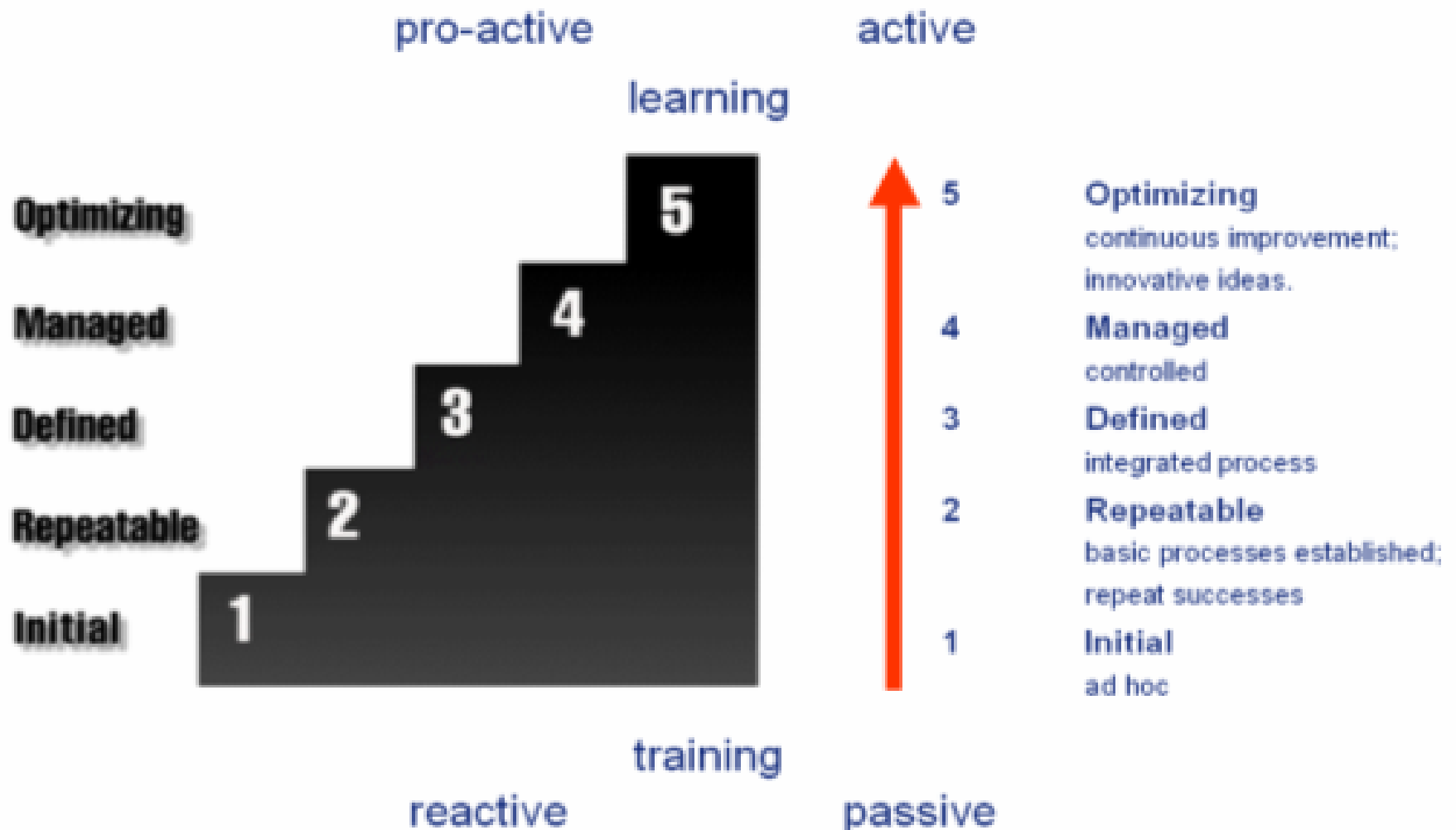
(Kaplan & Norton, 1996)



Capability Maturity Model

See: <http://www.sei.cmu.edu/cmm/>

Capability Maturity Model



Stage 1

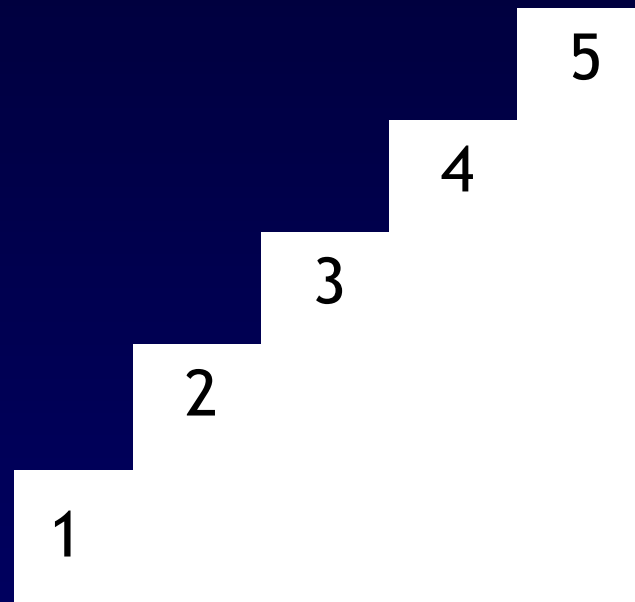
5 Optimising

4 Managed

3 Defined

2 Repeatable

1 Initial



The software process is characterised as **ad hoc**, and occasionally even chaotic. Few processes are defined, and success depends on individual efforts and heroics.

Stage 2

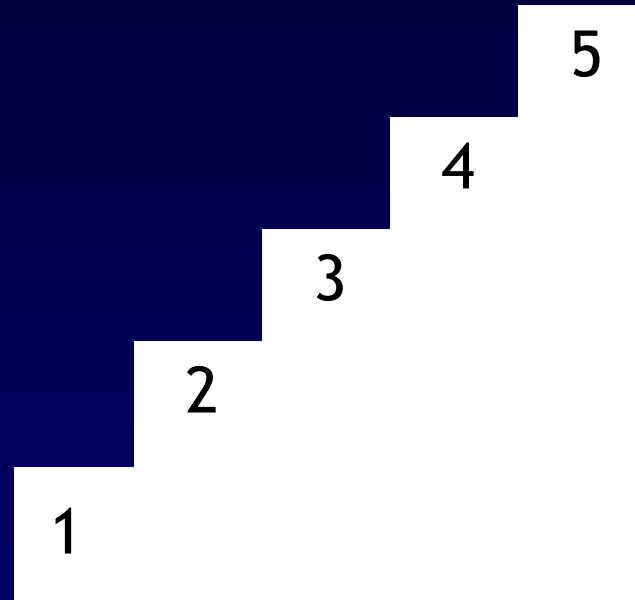
5 Optimising

4 Managed

3 Defined

2 Repeatable

1 Initial



Basic project management processes are established to track costs, schedule, and functionality. The necessary process discipline is in place to repeat earlier successes on projects with similar applications.

Stage 3

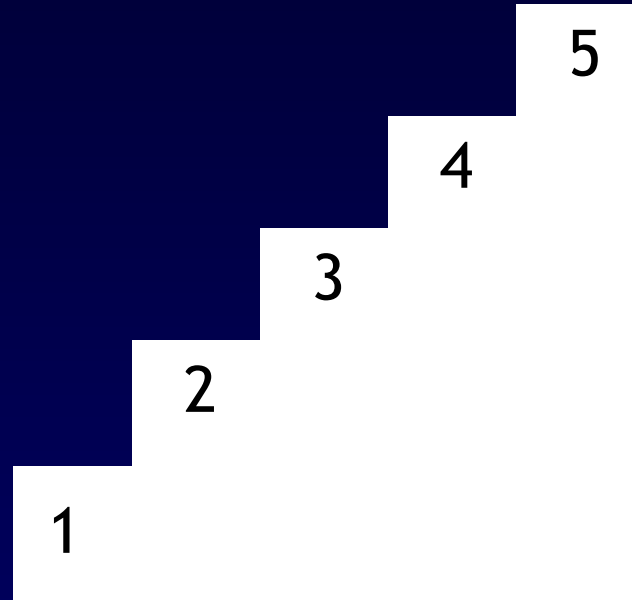
5 Optimising

4 Managed

3 Defined

2 Repeatable

1 Initial



The software process for both management and engineering activities is documented, standardised, and integrated into a standard software process for the organisation. All projects use an approved, tailored version of the organisation's standard software process for developing and maintaining software.

Creating a Quality Culture

Quality Road map

- Customer Focus
- Systematic process improvement
- Total involvement of staff

Leading to

- Continuous Improvement

Focus on customer service quality

- Customer satisfaction
 - Satisfaction surveys
- Customer expectations
 - Opinion surveys; satisfaction vs importance
- Customer understanding
 - Gap surveys; priority surveys; free comment
- Benchmarking
 - Statistical, competitive and generic

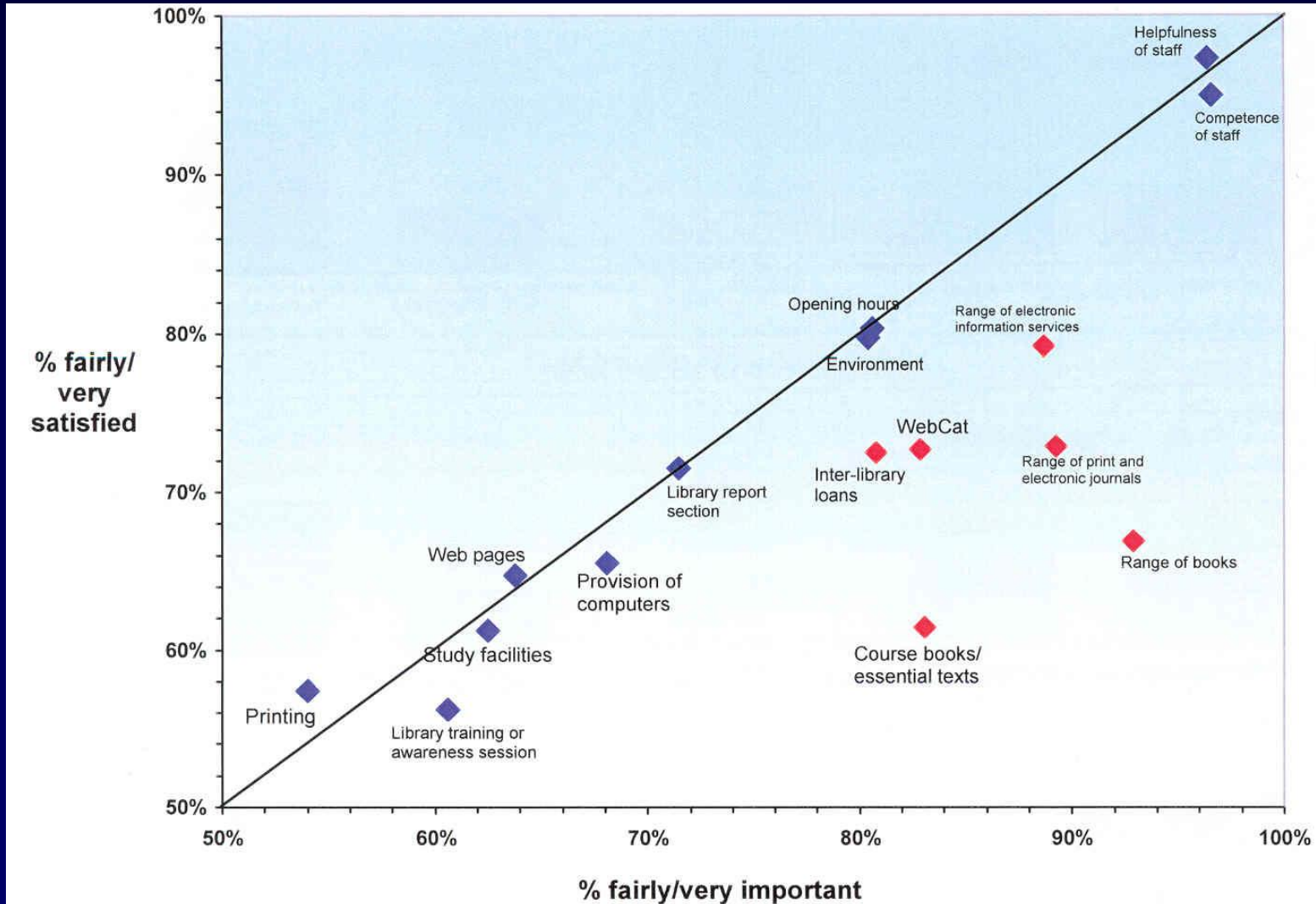
Cranfield University at RMCS

- Quality Management Student Perspective Survey 1993
- Exit Questionnaires 1994-
- Information Services Survey 1996
 - Priority Search
- DTC MSc & MA Course Students 1997
 - Repeat of 1996 methodology

Continued ...

- Researchers Survey 1998
 - First Web-based survey; PR methodology
- SCONUL ACPI WGUS Survey 1999
 - Satisfaction vs importance template; PR analysis
- University Libraries Survey 2001
 - SCONUL template +; PR analysis
- LibQUAL+ Pilot 2003

Comparisons of Satisfaction Against Importance



Commentary

COMMENTARY

The chart above shows a comparison of the satisfaction respondents showed compared to the importance they placed on each feature.

Priorities for improvement can be extracted from this comparison. Those features with a red marker represent an item which is considered important to respondents and yet did not receive a comparable rating of satisfaction. Thus, items which appear a considerable distance away from the central line can be considered areas of concern for respondents.

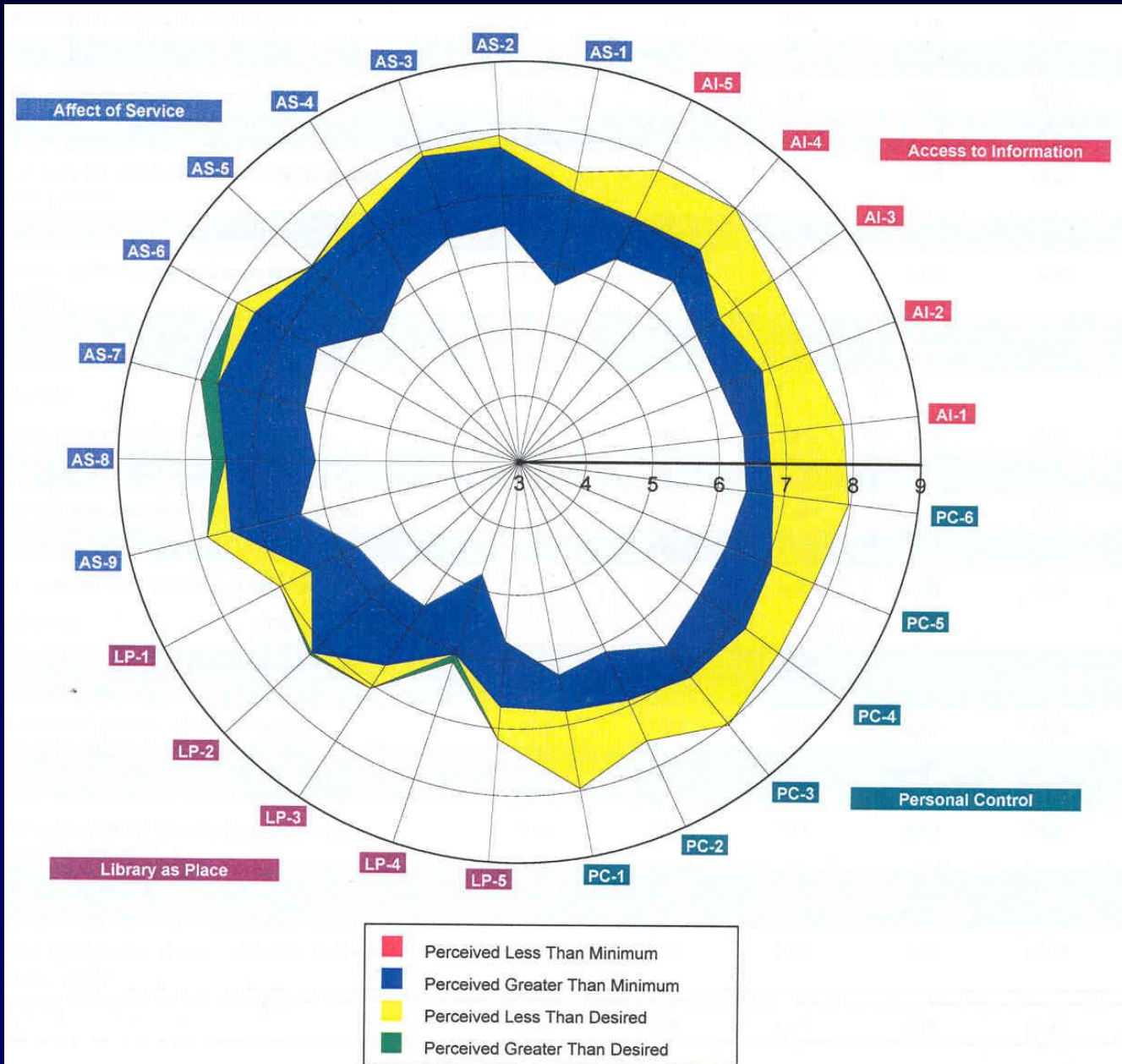
For example, the range of books in the library is considered highly important, and yet just two thirds of respondents were satisfied. The range of journals and electronic information services is also an area of concern for some respondents. This is quite typical of library services surveys in general.

Other features considered more important than satisfactory included the library catalogue and inter-library loans.

Comparisons of Satisfaction Against Importance

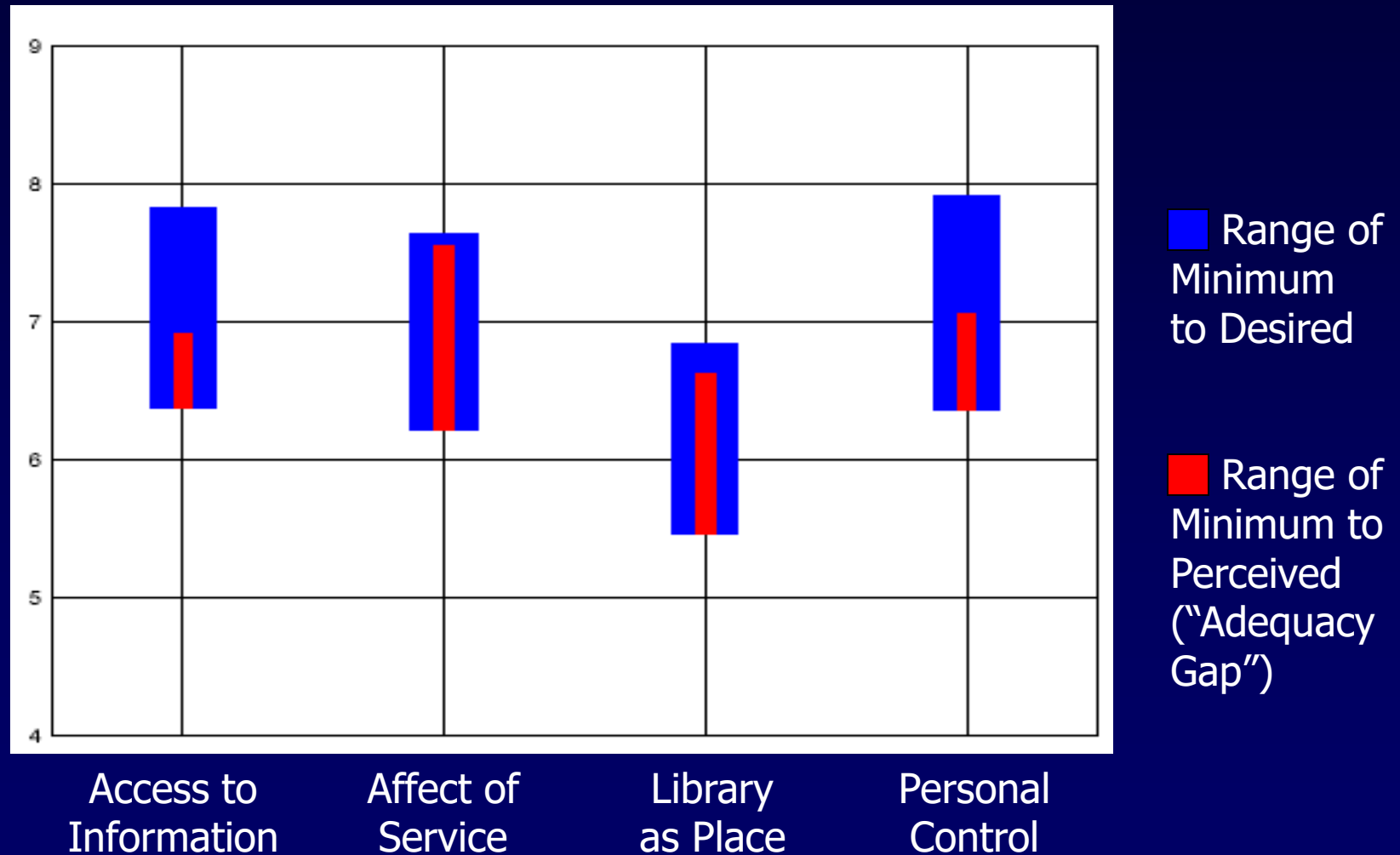
Difference between importance and satisfaction levels				
	Overall	Cranfield	RMCS	Silsoe
Range of books	26.2	28.3	22.6	28.9
Range of print and electronic journals	16.4	17	15.1	17.7
Course books and essential texts	21.7	24	18.9	23
Library web pages	-0.9	3.1	-7.3	2.3
Printing	-3.4	1.1	-8.7	-3.9
Study facilities	1.3	7.6	-1.1	-8.8
Provision of computers/PCs	2.6	6.5	-3.6	6.1
Library catalogue (WebCat)	10.2	13.1	5.4	13.3
Range of electronic information services	9.5	9.4	8.7	10.9
Opening hours	0.7	0.3	-0.7	4.4
Library environment (noise/heating/ambience, etc)	0.3	3.8	-3.8	0
Helpfulness of the library staff	-0.9	-1	-0.8	-1.3
Competence of the library staff	1.6	0.8	3.5	-0.8
Inter-library loans	8.3	6.1	8.4	12.6
Library training or awareness session	4.4	7.9	-4.4	15.9
Library report section (Cranfield and RMCS only)	0	2.6	-3.3	-

Cranfield Core Questions Summary

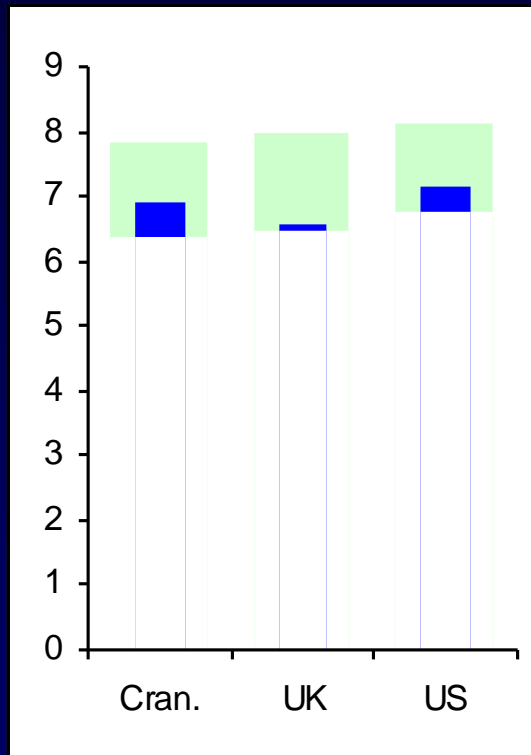


Cranfield University

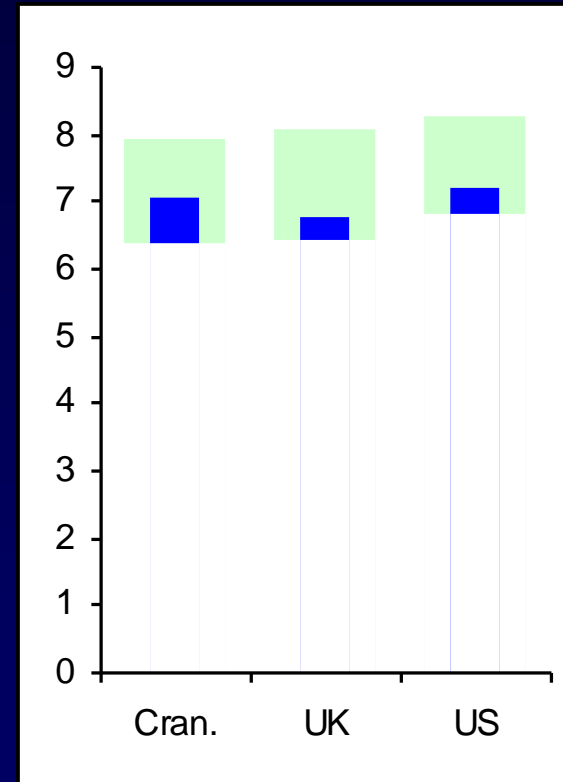
Dimensions Summary 2003



Access to Information



Personal Control



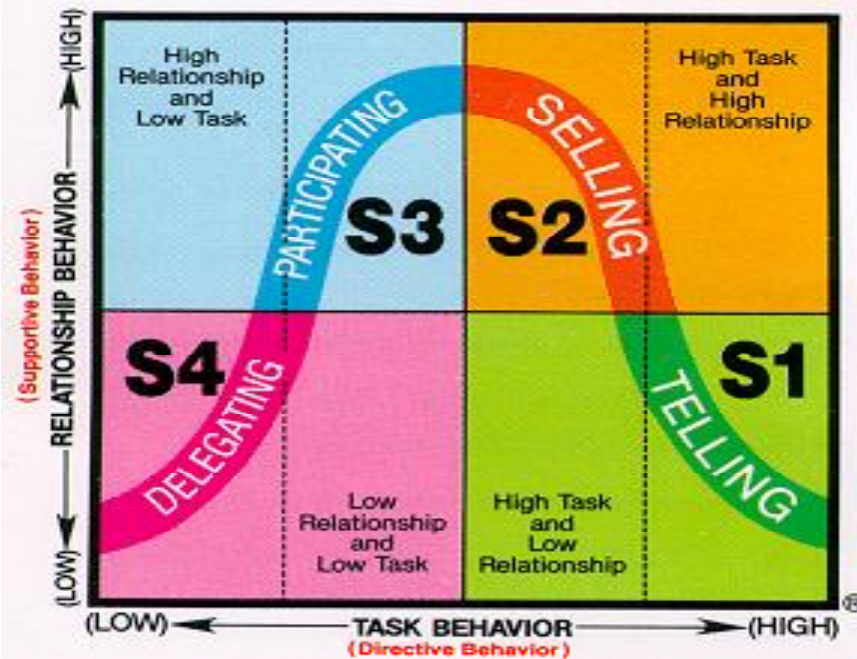
Focus on controlled development

- Systematic and agreed improvement methods & tools
- Measurement (including direction)
- Project management as rational management of change
- A plan, but not at the expense of creativity and 'just doing it'

Focus on total involvement of staff

- Vision
 - Models, maps, frameworks
- Leadership & delegation
 - Choice of styles
 - Competence & Commitment
- Staff development
 - Proactive towards 'future' state rather than reactive cycle

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References

- Barton, J & Blagden, J. 1998. Academic library effectiveness : a comparative approach. Boston Spa : *British Library Research and Innovation Centre*, Report Number 120.
- Capability Maturity Model: <http://www.sei.cmu.edu/cmm/>
- Conyers, A, 2004. E-measures: ready for the count? *SCONUL Newsletter*. Number 31. Available at: http://www.sconul.ac.uk/pubs_stats/newsletter/31/
- Deming, W. E. (1986). *Out of the Crisis: Quality, Productivity and Competitive Position*. Cambridge: Cambridge University Press.
- E-Measures Project Web site:
<http://www.ebase.uce.ac.uk/emeasures/index.htm>
- Hart, L. 2001. Benchmarking Consortia: Working Together in Practice. *SCONUL Newsletter*. Number 22.
- Kaplar, R & Norton, D. 1996. *The Balanced Scorecard*. Boston, Mass : Harvard Business School Press.
- Napier University Library Statistics & Performance Indicators:
<http://nulis.napier.ac.uk/Statistics/Statistics.htm>
- Payne, P, Crawford , J, & Fiander , W. 2004. *Counting on making a difference: assessing our impact*. To be published in VINE.
- QAA: <http://www.qaa.ac.uk>
- SCONUL ACIL: http://www.sconul.ac.uk/activities/inf_lit/
- SCONUL ACPI: <http://www.sconul.ac.uk/activities/performance/>
- SCONUL Statistics: http://www.sconul.ac.uk/pubs_stats/stats.html
- SCONUL Working Group on Quality Assurance:
http://www.sconul.ac.uk/activities/quality_ass/
- Town, J. S., 2004a *Filling the void or bridging the deep?: LibQUAL+ in the UK*. In press.

References continued

- Town, J. S., 2004b E-Measures: A Comprehensive Waste of Time? *VINE*, in press.
- Town, J. S. 2003. Information Literacy: definition, measurement, impact. In: Martin, A. and Rader, H. eds. *Information and IT literacy: enabling learning in the 21st century*. London: Facet, p.53-65.
- Town, J.S. 2002a. Seven toasts for a summer evening in Pittsburgh: Dinner Speech in *Proceedings of the 4th Northumbria International Conference, on Performance Measurement in Libraries and Information Services*, Pittsburgh, August, 2001. ARL, pp. 357 - 359
- Town, J.S. 2002b. Welfare or Wisdom? Performance Measurement for Information Skills Education. In Stein, J., Kyriallidou, M. and Davis, D. (eds) *Proceedings of the 4th Northumbria International Conference on Performance Measurement in Library and Information Services*, Washington D.C., August 2001, ARL, pp 203 - 8.
- Town, J.S., 2000a. *SCONUL Benchmarking Manual*. Standing Conference on National and University Libraries, London.
- Town, J.S., 2000b. Performance or Measurement? *Performance Measurement and Metrics*, 1(1), pp. 43-54.
- West, C. 2001. *Measuring User Satisfaction: A Practical Guide for Academic Libraries*. Standing Conference on National and University Libraries, London.
- West, C. 2004. A Survey of Surveys. *SCONUL Newsletter*. Number 31. Available at: http://www.sconul.ac.uk/pubs_stats/newsletter/31/
- Zeithaml, V. A., Parasuraman, A. & Malhotra, A. (2000). *A Conceptual framework for understanding e-service quality: implications for further research and managerial practice.*, Cambridge MA: Marketing Science Institute.

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