

Institute *of* **Physics**

**Results of Subject Review Visits
by the Quality Assurance Agency
to Physics Departments**

1998-2000 SESSION

London
May 2000

Policy Paper 2000-2

Reviewing the Quality of Education

The Quality Assurance Agency for Higher Education (QAA) was established in 1997. It has responsibility for assessing the quality of higher education (HE) in England and Northern Ireland from 1 October 1997 under the terms of a contract with the Higher Education Funding Council for England (HEFCE).

The purposes of subject review are: to ensure that the public funding provided is supporting education of an acceptable quality, to provide public information on that education through the publication of reports such as this one, and to provide information and insights to encourage improvements in education.

The main features of the subject review method are:

Review against Aims and Objectives

The HE sector in England and Northern Ireland is diverse. The HEFCE funds education in over 140 institutions of HE and 75 further education (FE) colleges. These institutions vary greatly in size, subject provision, history and statement of purpose. Each has autonomy to determine its institutional mission, and its specific aims and objectives at subject level.

Subject review is carried out in relation to the subject aims and objectives set by each provider. It measures the extent to which each subject provider is successful in achieving its aims and objectives.

Readers should be cautious in making comparisons of subject providers solely on the basis of subject review outcomes. Comparisons between providers with substantively different aims and objectives would have little validity.

Review of the Student Learning Experience and Student Achievement

Subject review examines the wide range of influences that shape the learning experiences and achievements of students. It covers the full breadth of teaching and learning activities, including: direct observation of classroom/seminar/workshop/ laboratory situations, the methods of reviewing students' work, students' work and achievements, the curriculum, staff and staff development, the application of resources (library, information technology, equipment), and student support and guidance. This range of activities is captured within a core set of six aspects of provision, each of which is graded on a four-point scale (1 to 4), in ascending order of merit.

The aspects of provision are:

- Curriculum Design, Content and Organisation
- Teaching, Learning and Assessment
- Student Progression and Achievement
- Student Support and Guidance
- Learning Resources
- Quality Management and Enhancement.

Peer Review

Reviewers are academic and professional peers in the subject. Most are members of the academic staff of UK HE institutions. Others are drawn from industry, commerce, private practice and the professions.

Combination of Internal and External Processes

The review method has two main processes:

- Preparation by the subject provider of a self-assessment in the subject, based on the provider's own aims and objectives, and set out in the structure provided by the core set of aspects of provision.
- A three-day review visit carried out by a team of reviewers. The review team grades each of the aspects of provision to make a graded profile of the provision, and derives from that profile an overall judgement. Provided that each aspect is graded 2 or better, the quality of the education is approved.

Published Reports

In addition to individual review reports, the QAA will publish subject overview reports at the conclusion of reviews in a subject. The subject overview reports are distributed widely to schools and FE colleges, public libraries and careers services. Both the review reports and the subject overview reports are available in hard copy and are also on the world-wide web (see back cover for details).

THE SIX ASPECTS OF PROVISION

CDCO Curriculum Design, Content & Organisation

TLA Teaching, Learning and Assessment

SPA Student Progression and Achievement

SSG Student Support and Guidance

LR Learning Resources

QME Quality Management and Enhancement

THE POINTS SCALE

Scale Point 1

The aims and/or objectives set by the subject provider are not met; there are major shortcomings that must be rectified.

Scale Point 2

This aspect makes an acceptable contribution to the attainment of the stated objectives, but significant improvement could be made.
The aims set by the subject provider are broadly met.

Scale Point 3

This aspect makes a substantial contribution to the attainment of the stated objectives; however, there is scope for improvement.
The aims set by the subject provider are substantially met.

Scale Point 4

This aspect makes a full contribution to the attainment of the stated objectives.
The aims set by the subject provider are met.

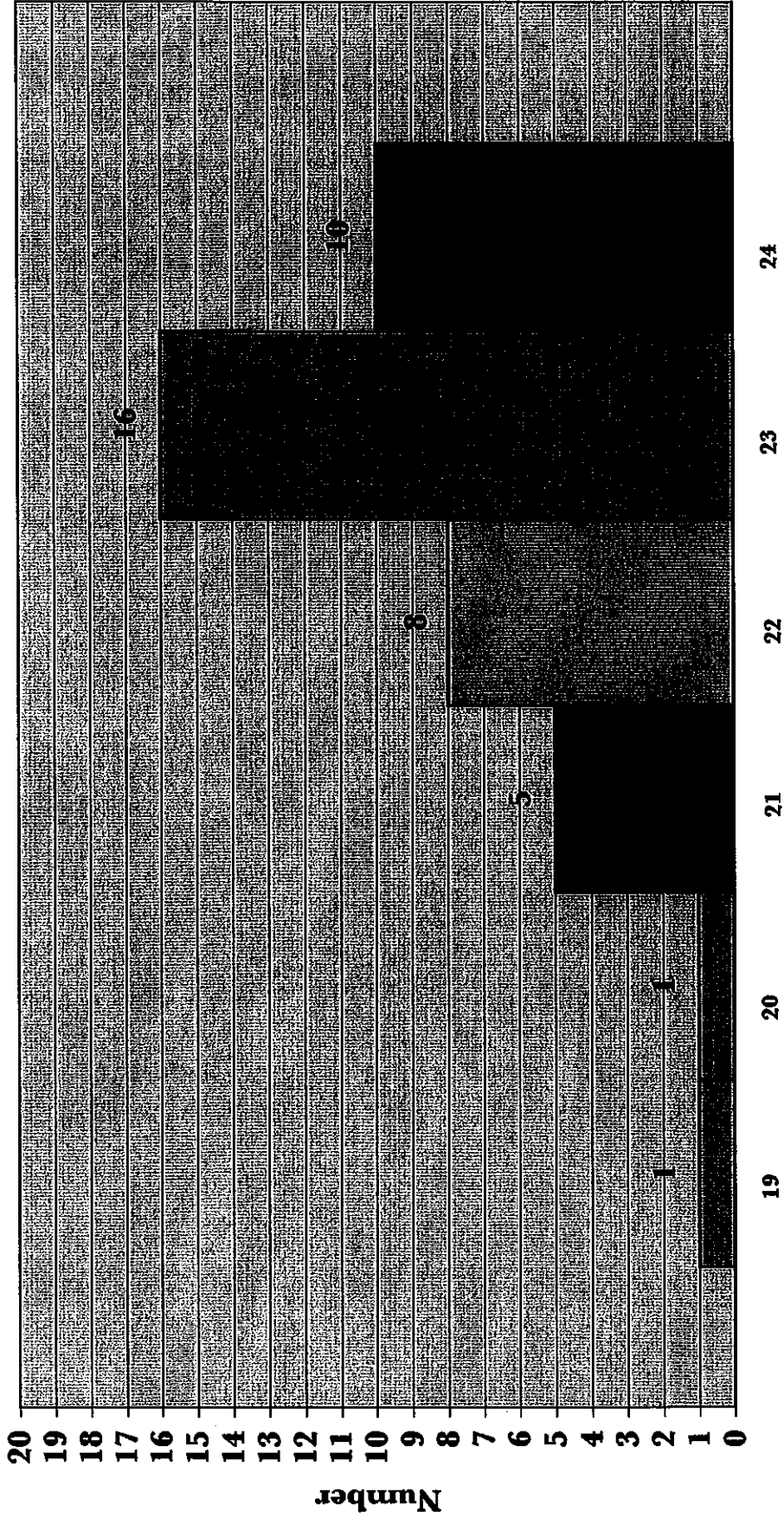
1998-2000 QAA SCORES
for 41 Physics Departments visited

Department	Total	CDCO	TLA	SPA	SSG	LR	QME
Bath	24	4	4	4	4	4	4
Birmingham	23	4	3	4	4	4	4
Bristol	23	4	4	4	4	4	3
Cambridge	23	4	4	4	4	4	3
Central Lancashire	19	3	3	3	4	3	3
Durham	24	4	4	4	4	4	4
Exeter	22	4	3	4	4	4	3
Hertfordshire	21	3	4	4	3	4	3
Hull	23	4	4	4	4	4	3
Imperial	22	3	3	4	4	4	4
Keele	22	4	4	4	4	3	3
Kent	21	3	4	3	4	4	3
King's College London	22	4	3	3	4	4	4
Lancaster	23	3	4	4	4	4	4
Leeds	24	4	4	4	4	4	4
Leicester	23	4	4	4	4	4	3
Liverpool	24	4	4	4	4	4	4
Loughborough	23	4	4	3	4	4	4
Manchester	24	4	4	4	4	4	4
Newcastle	21	3	4	3	4	4	3
Northumbria	23	4	4	3	4	4	4
Nottingham	23	4	4	4	4	4	3
Nottingham Trent	24	4	4	4	4	4	4
Open University	23	3	4	4	4	4	4
Oxford	23	4	4	4	4	4	3
Portsmouth	20	3	3	3	4	4	3

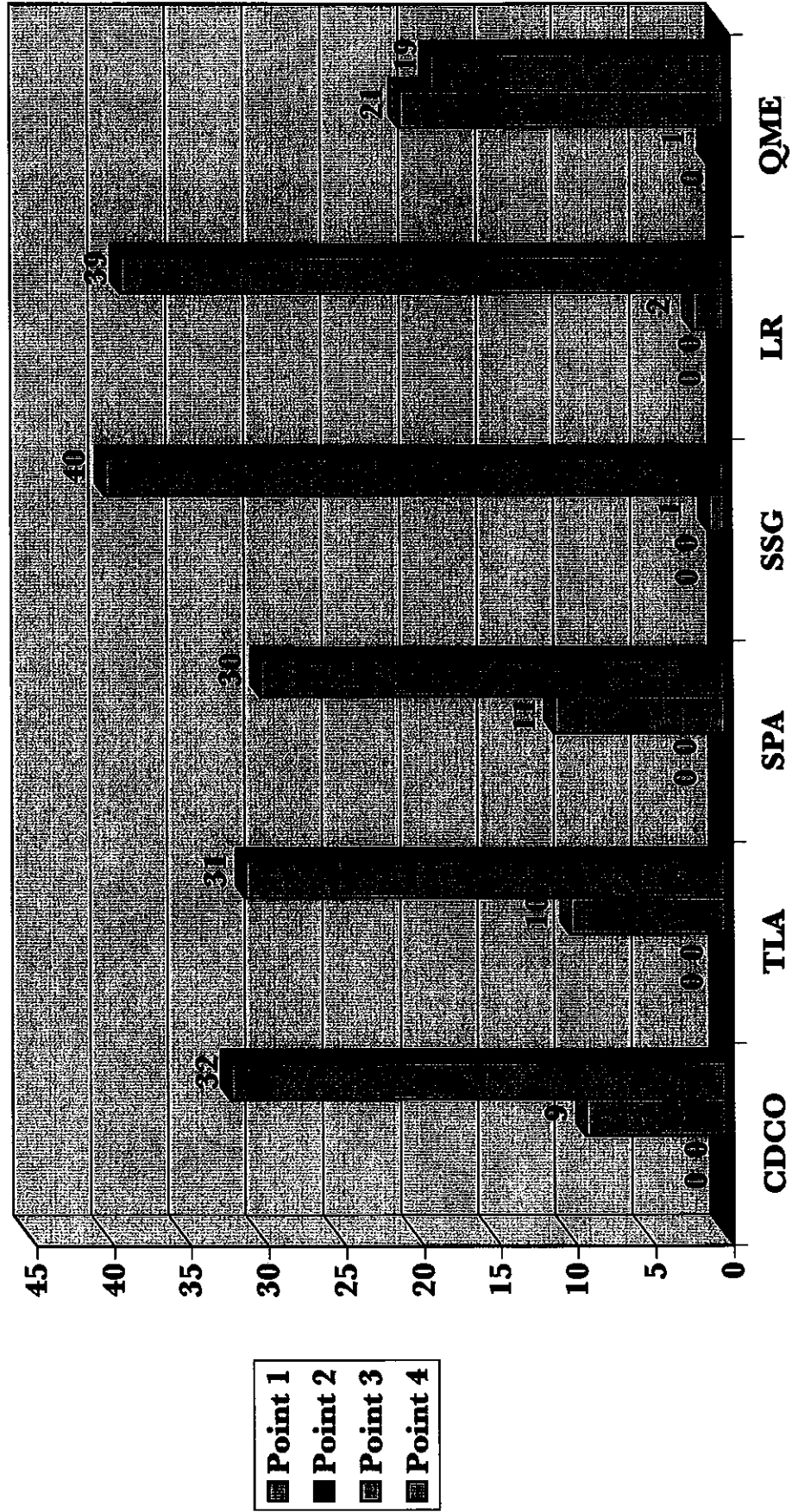
1998-2000 QAA SCORES
for 41 Physics Departments visited continued

Department	Total	CDCO	TLA	SPA	SSG	LR	QME
QMW	21	4	4	3	4	4	2
Queen's Belfast	23	4	4	4	4	4	3
Reading	24	4	4	4	4	4	4
Royal Holloway	23	4	3	4	4	4	4
Salford	23	4	4	4	4	4	3
Sheffield	22	4	3	4	4	4	3
Sheffield Hallam	24	4	4	4	4	4	4
Southampton	22	4	3	4	4	4	3
Staffordshire	22	4	4	3	4	4	3
Surrey	23	4	4	4	4	4	3
Sussex	22	4	4	3	4	4	3
UCL	23	3	4	4	4	4	4
UMIST	21	4	3	3	4	4	3
Warwick	24	4	4	4	4	4	4
York	24	4	4	4	4	4	4

Overall QAA Scores for Physics (1998-2000)



Scores by Aspect of Provision - The 41 Departments



The Six Aspects of Provision

SOME OF THE MAIN REASONS FOR LOSING POINTS

(Based on first 15 Reports)

- 1 low progression rates, low completion rates
- 2 "robust" management information systems to provide statistics on tap
- 3 inadequate formal systems for monitoring assessments (beware "year out" schemes)
- 4 failure to take prompt action in response to recommendations from internal reviews and/or external examiners' comments
- 5 lack of formal systems for communicating achievement criteria to students (when questioned, students do not know what they need to do to gain high marks)
- 6 inadequate reference to staff development and training
- 7 other issues -
 - some assessments do not fully stretch the most able students
 - some lecturers fail to engage the students
 - some problems with the pace of lectures

BRIEF ANALYSIS

BROAD SPECTRUM

- Over 80% of departments (34 out of 41) visited by QAA have scored 22-24 points
- The mode is 23 points
- Lower Limit 19, Upper Limit 24

FINE STRUCTURE

- 1 department dropped a point on Student Support and Guidance (SSG)
- 2 departments have dropped a point on Learning Resources (LR)
- 9 departments have dropped a point on Curriculum Design, Content and Organisation (CDCO)
- 10 departments have dropped a point on Teaching, Learning and Assessment (TLA)
- 11 departments have dropped a point on Student Progression and Achievement (SPA)
- Quality Management and Enhancement (QME) is the aspect of provision which has caused physics departments most problems: 21 dropped one point and 1 dropped two points