

TOTAL STUDENT EXPERIENCE

Introduction

This report is a preliminary analysis of one aspect of the national survey of Higher Education Institutions undertaken as part of the *Quality in Higher Education* project. The survey covered staff and students in a sample of sixteen universities and polytechnics. The report focuses on that part of the survey which dealt with individual criteria of quality. A set of criteria emerges which transcends discipline area, sector, institution, or type of respondent (staff or student).

The questionnaire also provided the opportunity to look in detail at preferences of various subgroups within a variety of broad areas, such as teaching, assessment, resources, equal opportunities and the development of transferable skills. Subsequent reports will deal with these. Similarly, differences in definitions of quality will be considered in follow-up reports as will the enormous amount of qualitative information the project has obtained via responses to the open question, comments written on questionnaires, and letters received from potential and actual respondents.

This initial report, based on the ratings given by over 4000 respondents to individual criteria suggests that the key factor in the assessment of quality in higher education is the student experience. This is not restricted to the student experience in the classroom but to the *total student experience*.

The questionnaire

The questionnaire used in the survey is in four parts (see Appendix 1). The first part consists of a set of 111 possible criteria for assessing quality. Students and staff are asked to rank each of these criteria on a scale ranging from 1 (the criterion is of no relevance) to 4 (the criterion is absolutely essential). The 111 criteria are divided into eighteen dimensions. Nine dimensions relate to the course or programme of study:

- entry;
- programme structure;
- programme content;
- programme management;
- teaching;
- learning;
- knowledge, skills and attitudes;
- assessment;
- outcomes.

The other nine dimensions relate to the institution:

- approval and review procedures;
- staff development and appraisal;
- research and consultancy;
- management;
- general environment;
- institutional resources;
- student support and welfare;
- equal opportunities and access;
- collaborative links.

The second part of the questionnaire includes two summary sets of statements reflecting the nine dimensions of the programme of study and the nine dimensions of the institution. The respondents are asked to rank each set in order of importance. The third part has nine statements that reflect different ways of thinking about quality in higher education. Respondents are asked to rank them in order to reflect their

perceptions of quality in higher education. The fourth part is a set of classificatory questions.

Analysis in this report deals only with the first part of the questionnaire using the classificatory data to produce sub-group analyses.

The criteria included in the questionnaire are derived from a literature search intended to identify the quality criteria and measures currently in use by bodies such as HMI, PCFC, UFC, CDP, CVCP, CNA, BTEC, NATFHE and the AUT¹. Using the research conducted by the Student Satisfaction Project at the University of Central England in Birmingham (formerly Birmingham Polytechnic) (Mazelan *et al.*, 1991) and parallel work by the *QHE* project team on employers' views, we added a further range of criteria until we had identified around 300. These we distilled down, by merging overlapping criteria, to around 100 different elements. The questionnaire was piloted and following the analysis of the responses the final set of 111 criteria was constructed.

These criteria are, therefore, in no way predicated upon a single definition of quality. Rather, they reflect a range of approaches such as 'fitness for purpose', 'customer satisfaction' and 'excellence'. This approach has been used for two reasons. First, the aim of the questionnaire is to find out how these 'stakeholders' view quality in higher education: to base the questionnaire on one definition of quality would be to pre-empt the issue. Second, the literature search led the research team to the view that few people adopt a consistent and clear meaning for the term 'quality'. *Prima facie* more information about the priorities of stakeholders would be gained by adopting an indirect approach, concentrating on criteria rather than abstract concepts.

The *QHE* project has used quantitative, qualitative and documentary analysis in its investigation of the criteria of quality. This first report of the quantitative survey deals with only one aspect of the enquiry. As with any questionnaire, the data are both deceptively concrete and superficial. Asking the opinions of a large sample allows us to generate quantitative data with the appearance of 'hard facts'. However, the statements were pre-selected by the researchers and may not represent the priorities of the respondents. Similarly, in designing a questionnaire to reach a diverse audience, the statements are expressed in relatively simple language and deal only with ideas at a surface level. Despite their 'simplicity' there is still plenty of room for ambiguity in interpreting responses. What one respondent might read into a statement might not be the same as another. We have attempted, by emphasising key words in some of the statements, to focus attention on a 'preferred reading'. However, there is no guarantee that respondents have endorsed that reading. For example, we asked respondents to identify how important, in judging the quality of higher education, they regarded the development of certain knowledge, skills and attitudes within the programme of study (see Appendix 1, questions 32 to 46). One of the items was 'specialist subject knowledge'. Our preferred reading (although we added no emphasis) is knowledge of the *subject* of study as opposed to the transferable and academic skills contained in the remainder of the list. Respondents may, however, have emphasised *specialist* as opposed to more general knowledge, or *knowledge* as opposed to skills. One must be aware, then, that the rating of items may depend on the 'reading' of the item.²

Therefore, in reporting the results we are aware that the data reflect what the respondents appear to endorse as the key criteria of quality. The survey provides us with indicators, rather than 'hard facts' about how staff and students perceive the quality of higher education. This is the first stage and the preliminary quantitative conclusions will be augmented by qualitative analysis.

The sample

Questionnaires were distributed to a sample of 13500 students, teaching and non-teaching staff in 16 institutions. The institutions ranged from established collegiate universities through to the most recently established universities. They were selected on the basis of geographic location, size, age, type of course (modular and non-modular) and sector.

Approximately 50% of questionnaires went to students, 30% to teaching staff and 20% to non-teaching staff. 4066 people responded, a response rate of 30%. The respondents consisted of 1585 students, 1486 academic teaching and research

Table 1 Type of respondent by sector

	PCFC	UFC
Students	513	1071
Teaching/research staff	506	976
Non-teaching staff	455	493
Total	1474	2540

staff (that is, those who indicated that their job description included teaching or who were employed solely as researchers) and 946 academic-related, managerial or administrative staff. Two thirds of respondents were from the UFC (that is, traditional university) sector (see Table 1). A detailed breakdown of the characteristics of the sample is provided in Appendix 2.

The overwhelming majority (87%) of the sample worked or studied full-time, 81% of students, 91% of teaching staff and 87% of non-teaching staff respondents were full time.

Sex, ethnicity and age

There were more men (60%) than women (40%) in the sample mainly because men were over-represented on the teaching staff. 51% of students, 74% of teaching staff and 52% of non-teaching staff were men.

The respondents predominantly described themselves as from a European ethnic background (93% of those who responded) with Asians (2.4%) making up the largest non-European ethnic group. 12% of all students described themselves as non-European compared to only 4% for both teaching and non-teaching staff respondents.

Nearly a third of students were under 21 (31%) and another third between 21 and 25 (32%). Most of the remainder (23%) were between 26 and 40 years old. Just over two thirds of teaching staff (65%) were between 31 and 50 and only 12% were 30 years old or less. Non-teaching staff were slightly younger overall, 19% were 30 years old or less and 60% were between 31 and 50.

Subject area

Table 2 shows the areas of work or study with which the respondents identified. 260 staff provided no information or indicated that their post was not subject specific.

Students

Qualification

Most of the students were undergraduates on bachelor degree courses (72%). Only 3% were on BTEC or Dip. HE courses. One in five students were on postgraduate programmes; 13% on PGC/PGD or Masters courses, 3% were taking a professional qualification and 5% were doctoral students. The UFC sector had a larger proportion of postgraduate students (23%) compared to the PCFC sector (19%). Most of the 55 BTEC/Dip.HE students were in the PCFC sector (see Appendix 2, Table 7).

Table 2 Type of respondent by subject area

Subject area	Students	Teaching staff	Non-teaching staff	Total
Agricultural, biological	2.7	7.1	5.3	4.9
Business, management, finance, public administration.	14.4	7.7	22.3	13.5
Medical, dental, veterinary,	4.2	5.0	3.2	4.3
Health, nursing, social work, etc	2.2	3.3	2.5	2.7
Engineering, technology	6.6	11.5	8.4	8.9
Humanities (literature, history, philosophy.)	6.9	6.0	1.6	5.5
Languages	1.8	1.8	0.6	1.6
Education	4.6	3.5	4.4	4.1
Art, design, performing arts	4.9	3.2	3.2	3.8
Sciences (physics, maths, chemistry)	8.0	11.8	6.7	9.2
Social science (inc. economics, politics and psychology.)	11.0	9.1	3.3	8.6
Architecture, building, planning, environmental studies	3.9	2.5	1.6	2.9
Law	1.4	2.4	0.5	1.6
Information studies/technology, communication, librarianship	2.1	2.5	11.7	4.3
Other	3.2	3.8	6.0	4.0
Combined*	22.1	18.8	18.6	20.2

* A large proportion of respondents indicated that they worked or studied across subject boundaries.

Year of study

Nearly four in ten of the students were in the first year of their programme of study. A further 24% and 21% respectively were in second or third years while 16% of students were on later years of their programmes.

Placement

On in three students (31%) had a placement element in their course ranging from a few weeks to 2 years, the average was 35 weeks. 12% of students with placements had up to 10 weeks placement, a further 35% had between 10 and 35 weeks placement, another 48% had 36 to 52 weeks and 5% had more than a year. Placements were more likely to occur in the PCFC sector.

Fees

A British local authority paid the fees of 60% of the students, 23% paid for themselves, a British employer paid for 7.5% of students and an overseas government or agency paid for 3% of students in the sample.

Area of study

The subject area identified by students was broken down by sector, mode of study and (in the case of the UFC sector) by graduate status. Appendix 2, Table 3, compares the sample % with national % for UFC students based on data in *University Abstracts*. There are numerous problems with making such comparisons and so the data should be treated with caution. First, the categories in the *Abstracts* do not match the categories in the questionnaire, so categories have been combined and figures recalculated. The data in the *Abstracts* are for the previous academic year. The categories with which students identify may not be described in the same way in official statistics. This is particularly noticeable in two categories of students: multi-disciplinary students and education students. Those classified as 'combined' in the sample were students who indicated more than one 'major' area of study. Not all students on education courses regard their area of study as 'education' and sometimes refer to the subject area that they are learning to teach. It is not always possible to identify this if respondents do not provide the full title of their programme of study.

Similar reservations operate when comparing PCFC sector students with national figures (Appendix 2, Table 2). Due to the relatively small numbers of postgraduate students in the PCFC sector this comparison does not separate under- and postgraduate students. In addition 20% of PCFC sector students indicated that they were doing combined subject courses. These are not included in the comparison below as the available PCFC national statistics allocate all students to one of the nine subject areas. (Recent data on new enrolments in *Macro Performance Indicators May, 1992* include a 'Combined and General' category (PCFC, 1992) but this does not cover the range of students in the sample.) The large number of combined students in the sample will inevitably cause some distortion in making the comparison with national statistics.

Bearing in mind these caveats, the sample of students was very varied and few areas were drastically over- or underrepresented.

Staff

Experience

The average length of time staff had been in post was 7.7 years. 17% of staff had been in their current post up to 1 year, with 50% less than 5 years. However, at the other end, 17% of the sample had been in post over 15 years.

A quarter of the *teaching and research* staff (26%) had less than five years teaching experience in higher education while 41% had more than fifteen years experience of higher education teaching. This is a markedly different profile to that of *non-teaching* staff, 46% of whom had less than five years experience of non-teaching employment in higher education and only 4% had more than 15 years non-teaching experience.

Job title and activities

Of the staff, nearly half were lecturers (48%), 8% were heads and professors. Deans and higher management made up 2% of the staff sample (see Table 3). 11% of the sample were office managers and

Table 3: Job title by sector

Job title	PCFC %	UFC %	Total %	Total f
Assistant/associate lecturer	1.1	2.0	1.7	42
Lecturer	12.6	29.5	23.0	578
Senior lecturer	24.7	14.1	18.2	457
Principal lecturer	10.4	1.3	4.8	122
Head/Chair of school/department	5.9	3.5	4.4	112
Professor	1.3	5.9	4.2	105
Dean/Associate Dean	1.6	0.7	1.1	27
Director, V-Chancellor, Asst Dir., Pro V-C, Registrar	1.4	1.0	1.2	30
Office manager	3.3	1.6	2.3	57
Administrator	9.4	8.8	9.1	228
Personal assistant/secretary	2.4	2.0	2.1	54
Clerk/Clerk-typist/Wordprocessor-typist	2.5	1.4	1.8	46
Technician	10.5	5.7	7.5	189
Senior/Research Fellow	0.9	3.5	2.5	63
Research Officer	0.3	1.5	1.0	26
Researcher/Research Assistant	2.9	4.2	3.7	93
Other *	8.7	13.2	11.4	288
N	975	1537		2517
Total %	38.7	61.1	100	

administrators, 4% were personal assistants, secretaries and clerks, 8% were technicians and 7% were employed as researchers. Many of the remainder were librarians or had readerships. The staff were engaged in a variety of activities (see Table 11 in Appendix 2) and a large number indicated that their work included a combination of teaching, research and administration.

Relative importance

A notable feature of the responses was the *relative* rather than absolute importance attached to criteria. The vast majority of the 111 criteria were thought to be of *some* importance in assessing quality. Only 5 items were seen as irrelevant by more than 10% of respondents. Conversely 45 items were seen as essential by more than half the respondents.

There was considerable variation in the extent to which respondents regarded items as essential, ranging from 85.1% for '*the aims of the programme are understood by staff*' down to just 10% of the respondents who rated '*assessment of prior experience*' as essential in judging quality. Conversely, items that were regarded as of little or no importance (categories 1 and 2 combined) ranged from 2.9% for '*the library has sufficient resources for the learning needs of students*' up to 50.6% for '*assessment of prior learning*'. (The percentages in each category of importance for each statement are provided in Appendix 3.)

Respondents were invited to use an ordinal scale for rating the criteria. The responses should thus be treated as ordinal data. However, the data are more easily understood if the mean scores for each of the criteria are used for purposes of comparison. Using the mean effectively transforms the ordinal scale to an interval scale. This means that the four points on the scale (irrelevant, unimportant, desirable and essential) are treated as though they were equidistant. This, theoretically, is not legitimate. However, there is a very high degree of association ($r_s = 0.99$) between the rank order of the items as determined by the percentage of respondents who rated them essential and the rank order as determined by computing a mean score for each item (see Appendix 4 Table 4). In which case, for the sake of clarity and ease of exposition and comprehension, the mean rating scores are used for subgroup comparisons throughout this report.

The mean score for each item on the statements ranged from 2.4 to 3.8. As this is neither easy to read nor interpret, the item scores were recoded. Irrelevant scored 0, unimportant score 1, desirable scored 2, and essential scored 3. These were then multiplied by a factor of 33.3 to provide a range of scores from 0 to 100 for each of the items. The mean scores were then computed for the total sample, for staff, students, sectors and subject areas (see Appendix 3). The mean scores can then be 'read' as an average percentage importance score with 100 being 'absolutely essential' and 0 being 'irrelevant'. The range of the recoded

mean scores for each item was from 49 to 93 with an overall average of 75 (out of 100). 82% of items were seen as at least desirable (those with average scores of 67 or more) and the remainder were closer to 'desirable' than 'of little importance'.

The data were analysed for the entire sample and then broken down by type of respondent (student, teaching staff and non-teaching staff) by sector (PCFC or UFC) and by broad subject area (science, social science and art). These were combined to create 18 subgroups. Responses were compared by subgroup. This was further augmented by a detailed comparison by institution and by specific subject discipline.

The priorities

In one respect, it is not surprising that the majority of items were rated quite highly as they all derived from various 'expert' opinion as to how quality in higher education should be assessed. However, a clear set of priorities emerged across the sample that emphasised the importance of the total student experience.

Some items, such as research profile, entry standards, low drop-out rates and high percentages of good class degrees, which are often seen as important indicators of quality were rated as *relatively* unimportant. This apparent abandonment of 'traditional' indicators of quality was, initially, a rather surprising result. What appears to have occurred, however, is that criteria for judging the quality of higher education prioritise the student experience. This does not mean that research, input and output indicators are not regarded as important *per se* but that the focus of attention in judging quality of higher education is on the learning process experienced by students.

Highest rated items

As a result of the detailed analysis of the survey it is possible to identify a *single* group of criteria from the list of 111 regarded as the most important by all groups of respondents. Detailed data on all 111 criteria are provided in Appendix 3. From the subgroup analysis twenty six items were shown to have very high levels of agreement across all sub groups³. These were compared with ratings by institution and subject area (especially combined studies which were not included in the arts-sciences-social sciences sub-group breakdown). The highest rated items are shown in Table 4. It must be remembered that these criteria are the ones regarded as most important from the list provided. Other criteria that respondents may have identified are not considered in this report.

The highest rated criteria are dominated by resource, programme content, assessment and knowledge, skills and attitude items that relate to the total student experience of learning.

Teaching and learning

A teaching item tops the list of criteria. Surprisingly, however, it is not the kind of item, such as 'guaranteed small group tuition', that is often suggested as an essential element of a student charter (Meikle, 1991).

Staff understanding of the programme's aims and objectives emerged as the most important teaching item. Similarly, the most important learning criterion is that students understand the programme aims and objectives. This concern with aims and objectives is further reinforced by the inclusion in the highest rated items of '*the content is designed to achieve programme aims and objectives*' and '*assessment tests whether the aims and objectives of the programme have been met*'.

Concern with aims and objectives of courses, and the way content and assessment relates to these, reflect a concern with the student experience of learning. Having a clear and coherent structure that students and staff are aware of provides a framework for the student experience, both in terms of course content and the assessed work that they undertake.

The emphasis appears to be on learning not teaching. Items that relate to small group tuition, a balance between lectures and seminars, and effective use of audio-visual aids were seen as of less importance in judging quality than the encouragement of students to be involved in the learning process. This is further reinforced by the high rating given to resource, assessment and content items.

Institutional resources

Library provision and access, workshops and laboratories, and access to information technology facilities were the main resource criteria. Given recent concerns about library provision (HEFCE, 1992), its high

Table 4 Highest rated items for the entire sample

Highest rated criteria	% essential	Mean	Rank
TEACHING			
The aims and objectives of the programme are understood by staff.	85	93	1
INSTITUTIONAL RESOURCES			
There is adequate access to library facilities (time and location).	83	93	2
The library has adequate resources to cater for the learning demands of students.	83	93	3
The library has adequate resources to cater for the teaching demands of staff.	75	90	5
There are sufficient and adequately equipped workshops and laboratories.	71	88	12
There are sufficient staff to support effective use of the library.	68	87	14
There is adequate access to information technology facilities.	67	87	16
There are accessible technical and support staff to assist IT & laboratory users.	60	84	25
ASSESSMENT			
Assessment methods are valid, objective and fair.	80	91	4
There are clear criteria for assessment that are understood by staff and students.	74	89	8
Students receive useful feedback from assessed work.	72	89	10
Assessment tests whether the aims and objectives of the programme have been met.	63	85	23
CONTENT			
The academic standard or level of the programme is appropriate to the award.	76	90	6
The content is designed to achieve programme aims and objectives.	70	88	13
The programme content inspires students and gives them confidence.	67	87	15
The programme content has a coherent sequence and structure.	65	86	18
KNOWLEDGE SKILLS AND ATTITUDES			
The ability to communicate effectively (written and oral).	74	89	7
Independent judgement (critical thinking).	72	89	9
Ability to solve problems.	64	86	19
Analytic skills.	63	85	20
Enquiry and research skills.	60	84	24
LEARNING			
The aims and objectives of the programme are understood by students.	72	88	11
Students are encouraged to be actively involved in the learning process.	66	86	17
MANAGEMENT			
A commitment to quality is part of the ethos and culture of the institution.	65	85	21
EQUAL OPPORTUNITIES			
There is adequate access to buildings for the disabled.	65	85	22
ENTRY			
Prospective students are given adequate information about the programme.	61	84	27

See Appendix 3 for full list of 111 items).

profile is, perhaps, not altogether surprising.

Commonly, students cannot easily get the books that they are recommended to consult. The bookshops associated with the institution are often limited The libraries themselves are often crowded and noisy. (Lloyd, 1992)

The prevailing view among respondents appears to be that libraries should support teaching and learning rather than scholarship (Ratcliffe, 1992) as '*the library has adequate resources to cater for the research demands of staff*' is ranked 31st as a criterion of quality.

The very high importance attached to institutional resources reflect a concern with the provision of an adequate environment for student learning. These were seen as much more important than, for example, items related to the general environment and facilities. Attractive surroundings, halls of residence, well maintained grounds and buildings and adequate sports facilities rated very poorly as indicators of quality. The only environmental item that appears in the top half of the ranked criteria was '*teaching rooms provide a supportive teaching and learning environment*', which is ranked 40th overall.

Assessment

Practices and procedures for the assessment of student work are also seen as of major importance when assessing the quality of higher education. Valid, objective and fair assessment with clear criteria that results in useful feedback for students are items that are rated very highly. Students, especially, give very high priority to useful feedback ranking it the fifth most important criteria for assessing quality.

The high rating of these assessment criteria endorses an approach to quality that prioritises an active and transparent learning process.

Programme content

Apart from achieving aims that both staff and students understand, programme content that is coherent and structured, that inspires students and gives them confidence and is at a standard that reflects the award, are also seen as important indicators of quality. These elements of programme content are consistent with the student experience of learning.

Interestingly, the specific nature of the content, whether it relates to advances in the subject, specialist knowledge or a broadly-based education, were regarded as less important. Overall, content items that relate to the learning process were rated as more important in assessing quality than items that related to what is learned. This is reflected in the high rating of some knowledge, skills and attitude items. In particular, that the programme should develop in students effective communication, independent judgement (critical thinking), problem solving and analytic skills were regarded as important in assessing the quality of higher education. This is analysed in more detail below.

Lowest rated items

At the other end of the scale, the items regarded as of least importance include criteria often taken for granted as important indicators of quality but which are less directly germane to the student experience of learning (Table 5).⁴

Research

The research qualifications of staff is rated as relatively unimportant in assessing quality in higher education. More than a quarter of respondents (27.8%) thought that this criterion was of little or no importance in assessing the quality of higher education provision. This item scored 65 and was ranked 96th overall. Similarly, publication of research by staff is seen as relatively unimportant with less than one third of respondents (31%) regarding it as essential. Research publication scored 67 and was ranked 90th overall. The ability of the institution to attract research contracts from employers was also rated poorly (63)⁵ and ranked 99th overall.

Research qualifications and publication were items where there was some degree of disagreement. For example, students rated research qualification (62) and publication (59) as marginally less important than teaching staff (68 and 74 respectively). Similarly, respondents from the humanities and agriculture rated research higher than respondents from education and architecture. Overall, UFC teaching staff, not surprisingly, rated research qualifications and publication higher than their PCFC counterparts.

Table 5 Lowest rated items

Lowest rated criteria	% essential	Mean	Rank
RESEARCH			
Staff publish their research widely or produce other relevant public output	31	67	90
Staff are highly academically qualified to undertake research.	28	65	96
The institution is successful in obtaining research contracts with employers.	23	63	99
TEACHING			
Students are prepared in advance for taught sessions	18	63	100
ENVIRONMENT AND WELFARE			
The institution has halls of residence	37	67	91
The institutional surroundings are attractive and pleasant..	26	66	92
There are adequate sports facilities	18	53	109
PROGRAMME STRUCTURE			
The structure facilitates transfer between programmes	19	63	98
There is a variety of points of entry and exit.	16	57	104
EMPLOYER AND WORK ITEMS			
The programme content takes into account the needs of employers.	25	64	97
Views of employers are incorporated into approval & review of progs.	24	62	101
Where appropriate, assessment is undertaken in the work environment	16	56	105
Work experience is an integral part of the learning process	18	55	107
OUTCOMES			
Few students withdraw from the programme	22	61	102
The course produces a large proportion of top class result	16	58	103
Few students fail the programme	16	54	108
PROGRAMME CONTENT			
The programme provides a broadly-based undergraduate education	26	65	95
The programme concentrates on providing specialist knowledge	13	56	106
ENTRY AND PRIOR EXPERIENCE			
Recognition is given to relevant prior learning.	23	66	93
High academic standards are required for entry	11	50	110
There are arrangements for assessing experience prior to the programme	10	49	111

The research item that was given the highest rating (75 ranked 59th) was that ‘*all teaching staff are engaged in a variety of research and consultancy to enhance teaching*’. This suggests that the relatively low rating of research items is due to them not being seen as directly germane to the development of the total student experience. This, of course, raises the complex issue of the relationship between research activity, the development of an academic milieu and teaching and learning. What the preliminary results appear to show is that however important respondents might regard research *per se* they do not perceive it as important in judging the quality of higher education.

Entry standards

Given the concern with the total student experience, there is relatively little support for high entry standards as an important criterion of quality. There is considerable agreement between staff and students, across sectors and across broad subject areas on this item, which is ranked 110th out of 111. The largest discipline difference was between medicine (59) and education (43) while the biggest sub-group variation was between PCFC arts students (42, rank 111th) and UFC science non-teaching staff (63, rank 100th).

Outcomes indicators

The assumed importance of a number of broad outcomes indicators, including failure and withdrawal rates and proportion of upper second class degrees is questioned by the respondents. ‘*Few students withdraw from the programme*’ was seen as relatively unimportant by the sample as a whole (61, rank 102). Again there was a high degree of agreement between staff and students, across sectors and across broad subject areas. Respondents from health (68) and medicine (63) were marginally more concerned about withdrawal than respondents from engineering (56) and architecture (55).

Similarly, ‘*few students fail the programme*’ was rated as a relatively unimportant criterion of quality by the sample (54, rank 108th). Non-teaching staff (57) rated it slightly higher than students (54) and teaching staff (51) and similar minor differences were shown by arts (58) social science (53) and science (51) respondents. Again, engineering respondents (48) scored failure rates lowest with health respondents (60) scoring failure rates highest among the different disciplines.

‘*The course produces a large proportion of top class results*’ was also among the least important criteria for assessing quality (58, rank 103rd). PCFC science teachers gave this very little importance (46, rank 110th) whereas arts non-teaching staff from the same sector accorded it marginally more importance (69, rank 96th).

It is difficult to interpret the relatively low importance attached to these ‘performance indicators’ because of the inherent problem of relating performance indicators to quality. For example, does a high drop-out rate signal high or low quality? However, the relative lack of importance attributed to these decontextualised input and output indicators is consistent with the emphasis on the student learning *experience*.

Institutional surroundings and facilities

Institutional surroundings and the sports facilities, as we have suggested, are also regarded as of relatively little importance in assessing the quality of higher education. The HEIST Report (Roberts and Higgins, 1992), for example, noted that 8% of second year students mentioned sports facilities as a reason for choosing their institution. Similarly the institutional surroundings ranked among the most significant aspects in judging the best and worst features of their institution. While sports facilities and environment might be of some consequence for prospective students and significant areas when it comes to student *satisfaction*, they are regarded as relatively unimportant *quality* criteria by staff and students in the system.

Employer related items

Links with employers and the world of work are also seen as relatively unimportant in assessing quality. The programme taking into account employer needs, the incorporation of the views of employers in course approval and review, work experience as an integral part of the learning process and assessment in the work environment (in addition to the ability of the institution to attract research contracts from employers) are all ranked amongst the least important criteria.

Given the apparent concern with the student experience, these employer related items, like the research items discussed above, are not seen as having a direct bearing on the assessment of quality. It is arguable, of course, that the low rating given to ‘*work experience is an integral part of the learning process*’ (55, rank 107th) is contrary to an approach emphasising the total student experience. However, this is another item where there was quite substantial discipline area differences. Work experience was rated lowest by the humanities (38) and law (38) respondents and highest by the health (67), medicine (64) and architecture respondents (64).

The relatively low importance as criteria of quality given to these employer related items does not appear to be encouraging for academic-employer collaboration. It seems to be a set-back for the hopes of the Council for Industry and Higher Education, which argues that one of the three conditions for business to maintain and expand its input to higher education is

companies and their representatives, such as the Confederation of British Industry, should continue to know that their voices are heard by those responsible for setting higher education’s general priorities. It is proper for academics and business-people to continue to challenge each other robustly about the overall purposes of degree-level learning and its relation to the demands of working lives. (CIHE, 1991, p. 2)

However, the fact that respondents thought these employer-related items relatively unimportant in assessing the quality of higher education does not mean that they regard them as unimportant activities *per se*.

Knowledge skills and attitudes

A number of items on the importance of skills, attitudes and knowledge in assessing quality were included in the questionnaire. They can be compared with an identical set of items used in a survey of employers⁶ (see Tables 6 and 7).

The single most important item for academics and employers was the ability to communicate effectively. Both samples ranked it in first place. Three quarters of academics (74%) regarded '*the programme of study should develop in students effective communication skills*' as essential in assessing quality. Similarly, although from a 'consumer' perspective, a similar proportion of employers (77%) regarded effective communication as an essential quality when selecting graduates for recruitment to their organisation. Only 4% of the academics and 1% of the employers regarded it as of little or no importance. (See Harvey, Burrows and Green, 1992 for detailed analysis of the employers' survey).

Ability to solve problems and analytic skills were also rated highly by both samples. That the programme of study should develop in students problem solving skills was rated as essential as a criterion of quality by 64% of academics. Similarly, 62% of employers regarded problem solving as an essential quality when selecting graduates for recruitment to their organisation. Analytic skills were close behind with 63% of academics and 59% of employers regarding these as essential.

However, there were marked differences between the two samples (the items shaded in Tables 6 and 7). Team work, which the employers ranked in second place with 75% indicating that it was essential, was 12th for the academics with only 39% indicating that they regarded it as essential. Students (mean = 75) rated team work higher than either staff group, but still a long way below any of the employers groups. Service industry employers' representatives, in particular, rated team work very highly (mean = 95).

Independent judgement was ranked in second place by the academics, with 72% indicating that they regarded it as essential. Employers, on the other hand, ranked independent judgement in 8th place with only 42% indicating that it was essential.

Employers and academics also disagreed substantially about the relative importance of enquiry and research skills, flexibility and adaptability, and numeracy. A fifth of the academics (21%) regarded the latter as of little or no importance, twice the proportion of the employers' sample (9%).

The item seen as of least relative importance was specialist subject knowledge. Employers ranked specialist subject knowledge last, with a mere 17.8% indicating that specialist subject knowledge was an essential quality when selecting graduates for recruitment to their organisation. Indeed, more than a third of employers (38%) regarded it as of little or no importance.

Employers not only ranked specialist subject knowledge in last place but, in absolute terms, they did not

Table 6 Ratings of knowledge skills and attitude items: academic sample

Knowledge, skills and attitudes	Irrelevant (%)	Unimportant (%)	Desirable (%)	Essential (%)	All academic mean	Student mean	Teaching mean	Non-teaching mean	Overall rank
Effective communication	1.7	2.3	22.4	73.6	89.3	88	91	91	7
Independent judgement	1.7	2.4	23.9	72.0	88.8	86	92	92	9
Ability to solve problems	1.5	3.4	31.3	63.7	85.8	83	88	88	19
Analytic skills	1.8	3.8	31.5	62.9	85.2	81	90	90	20
Enquiry and research skills	1.6	3.8	34.6	60.0	84.5	81	87	87	24
Logical argument	1.6	4.9	35.1	58.4	83.5	80	88	88	28
Decision making skills	2.0	7.0	39.0	52.0	80.4	81	79	79	38
Self skills (confidence, etc.)	2.5	7.5	38.3	51.8	79.9	81	78	78	41
Imagination and creativity	2.4	9.3	41.9	46.4	77.5	75	80	80	49
Flexibility and adaptability	2.3	10.0	45.2	42.4	76.1	76	76	76	57
Relate to wider context	3.0	12.2	43.7	41.1	74.4	76	73	73	65
Team work	4.2	13.8	43.3	38.7	72.3	75	69	69	72
Use I.T.	2.7	13.1	51.8	32.4	71.4	71	70	70	77
Specialist subject knowledge	2.5	16.7	49.3	31.5	70.1	68	72	72	80
Numeracy	4.7	16.7	45.6	33.1	69.1	66	70	70	83
Sample size					4066	1585	1486	946	

Table 7 Ratings of knowledge skills and attitude items: employer sample

Knowledge, skills and attitudes	Irrelevant (%)	Unimportant (%)	Desirable (%)	Essential (%)	Employer mean	Manufacturing mean	Service mean	Government mean
Effective communication	0.0	0.8	17.7	76.6	93	87	98	92
Team work	0.8	0.8	23.7	74.6	91	87	95	89
Ability to solve problems	0.0	1.7	36.4	61.9	87	89	89	82
Analytic skills	0.8	1.7	39.0	58.5	85	82	87	86
Flexibility and adaptability	0.8	2.5	39.0	57.6	85	79	87	87
Self skills (confidence, etc.)	0.8	2.5	44.1	52.5	83	77	88	82
Decision making skills	0.8	1.7	51.7	45.8	81	78	82	82
Independent judgement	0.8	4.2	52.5	42.4	79	79	80	79
Numeracy	0.0	9.3	49.2	41.5	78	81	78	74
Logical argument	0.8	7.6	56.8	34.7	75	69	78	80
Enquiry and research skills	0.0	14.5	55.6	29.9	72	70	70	77
Imagination and creativity	1.7	14.4	66.1	17.8	67	64	65	73
Use I.T.	3.4	17.8	59.3	19.5	65	69	58	71
Relate to wider context	5.9	25.4	58.5	10.2	58	50	57	68
Specialist subject knowledge	10.2	28.0	44.1	17.8	57	62	43	70
Sample size					124	35	47	34

rate it as very important (mean = 57). Manufacturing industry gave it a higher overall rating (62) but still placed it in 14th place, while service industry rated it as of very little importance (43) and placed it firmly in last place. Elsewhere (Harvey, Burrows and Green, 1992) we have suggested reasons for the low rating of specialist subject knowledge by employers. In the end, however, more than twice as many respondents regarded specialist subject knowledge as of little or no importance than as essential.

Academics ranked specialist subject knowledge next to last with just 32% of respondents indicating that they regarded it as essential when judging the quality of higher education that the programme of study develop students' specialist subject knowledge. A fifth of academics (19%) suggested it was of little or no importance. Students (mean = 68) rated specialist subject knowledge a little lower than the either staff group.

The mean score of 70 and the fact that half the academics (49%) thought specialist knowledge desirable suggests that they regard it as fairly important in *absolute* terms. However, that it was given a low *relative* rating by academics suggest that it was seen as less important than other knowledge, skills and attitude items.

The low rating of '*the programme develops within students specialist subject knowledge*' (mean = 70, rank 80th) is reinforced by the poor rating of the separate item '*the programme concentrates on providing specialist knowledge*' (mean = 56, rank 106th).

PCFC arts respondents are the one group who give the development of specialist skills and the provision of specialist knowledge a consistently higher rating than other respondents (see Appendix 3). Performing arts respondents are overrepresented in these subgroups and they may more closely associate the ability to perform with *specialist* subject knowledge.

Although rating subject specialism as relatively unimportant, academics do not appear to want courses which concentrate on subject specialism replaced by 'broadly based' programmes as this item also rates quite poorly (see Table 5).

Employers appear to want graduates who can work effectively in a modern organisation that demands initiative, group working and flexibility (Burrows, Harvey and Green, 1992). Academics, on the other hand, rate more highly, as quality criteria, those aspects of knowledge and skills that enhance the student learning experience, such as independent judgement and enquiry and research skills.

Agreement

There were very high levels of agreement across students and staff, across subject disciplines and across institutions as to the relative importance of the different criteria (Appendix 4). The mean scores for each sub-group on all 111 items correlated very highly and reflect a consensus between staff and students in general about the main criteria for assessing quality (Table 8).

The level of agreement is equally high across subject areas. The respondents were broken down into three broad subject areas, sciences, social sciences and arts. This breakdown is fairly crude⁷ but it was

Table 8: Correlation matrix: mean scores on 111 statements by the type of respondent

	Total sample	Students	Teaching staff	Non-teaching staff
Total sample	1.00	0.96	0.98	0.98
Students		1.00	0.89	0.93
Teaching staff			1.00	0.95

Table 9: Correlation matrix: mean scores on 111 statements by broad subject area

	Total sample	Sciences	Social sciences	Arts
Total sample	1.00	0.98	0.99	0.96
Sciences		1.00	0.96	0.91
Social sciences			1.00	0.95

expected that it would show some differences. In the event, the level of agreement between the three broad subject areas was very high (Table 9). The lowest level of agreement was between sciences and arts but this still resulted in a correlation in excess of 0.9.

The correlation matrix for the separate subject areas is provided in Appendix 4, Table 1. All correlations are significant at the 1% level and the *lowest* correlation is $r = 0.81$, between business (Area 2) and humanities (Area 6). This represents an overwhelming level of agreement across subject boundaries.

Furthermore there was an equally high level of agreement across sectors and between institutions (See Appendix 4, Table 2). Table 10 shows that the PCFC Sector correlates highly (0.96) with the UFC sector (including the Open University) on the 111 statements. Taking the Open University out of the UFC Sector and treating it as a separate sector the correlation between the PCFC and the UFC (excluding the OU) falls slightly to (0.94). This is due to a higher correlation between the OU and the PCFC Sector (0.92) than between the OU and the UFC Sector (0.88). Although there is some variation between sectors, the overall level of agreement across sectors is extremely high.

The levels of agreement between institutions are also very high. The *lowest* single correlation is $r = 0.82$, between institution 02 and institution 14. The institutions that correlates least well with the rest is institution 02 (a specialist Arts institution) but even then the correlation coefficients are still extremely high by social research standards.

The data overwhelmingly show high levels of agreement on the importance attached to different criteria for assessing quality. This agreement transcends institutional, sector, subject, staff and student boundaries. It was theoretically possible that differences were still being concealed by treating institution, sector, type of respondent and subject area separately. As a final check on the strength of the agreement the sample was divided into 18 subgroups, by type (student, teaching or non-teaching staff) by broad area (sciences, social sciences and arts) and by sector (PCFC, UFC). The mean scores on each item for each subgroup were computed and the subgroup sets of means correlated (See Appendix 4, Table 3). Once again, the correlations are very high and all are significant (at $p = 0.01$). However, there is a wider spread with correlations between subgroups ranging from 0.62 to 0.96. The lowest level of agreement was between PCFC Science students (G1) and UFC Arts teaching staff (G12). Indeed, UFC Arts teaching staff correlated relatively poorly with PCFC social science students (G12) and PCFC Science non-teaching staff (G13). The only other correlation coefficient below 0.7 was between PCFC Science students and UFC Arts non-teaching staff.

In conclusion, the respondents showed a very high degree of agreement about the important criteria in assessing quality. The agreement was much higher than expected. There was a presupposition that while certain items might be regarded highly by staff and students in general, that there would be considerable disagreement about other items. Variations between sectors and across disciplines, reflecting traditional ways of working and differing priorities, were expected. It was a surprise that the diverse sample concurred about the most important criteria for assessing quality.

Table 10: Correlation matrix: mean scores on 111 statements by sector

	Total sample	PCFC	UFC	OU	UFC exc OU
Total sample	1.00	0.98	0.99	0.94	0.98
PCFC		1.00	0.96	0.92	0.94
UFC			1.00	0.94	0.99
OU				1.00	0.88

Conclusion

The intention by the Higher Education Funding Councils in Britain to take account of quality in distributing funds has cast a spotlight on the assessment of quality. However, there is, as yet, no credible methodology for assessing quality. The *QHE* research has attempted to democratise the process of devising a methodology for assessing quality by starting at the beginning and asking various stakeholders what they regard as important criteria. This report deals with the views of staff and students as expressed in responses to items in a questionnaire. It is the intention, when qualitative and quantitative research has been carried out among different stakeholder groups, to suggest a methodology that may satisfy critics of the existing approach.

The resulting set of twenty six preferred criteria are a first step in identifying what stakeholders within the institutions regard as important in judging quality. These need to be explored further and they need to be compared with the various external stakeholders' views.

These criteria are unlikely to be fixed for all time. Quality is dynamic and priorities will change. However, the priorities identified by the sample suggest that it is the total student experience of learning that underpins the assessment of quality in higher education.

The next step is to devise a methodology that will take account of the identified criteria but be flexible enough to adjust to the dynamic nature of quality judgements.

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ENDNOTES

1. Her Majesty's Inspectorate (HMI), Polytechnics and Colleges Funding Council (PCFC), Universities Funding Council (UFC), Committee of Directors of Polytechnics (CDP), Committee of Vice Chancellors and Principals of Universities in the United Kingdom (CVCP), Council for National Academic Awards (CNAA), Business and Technician Education Council (BTEC); National Association of Teachers in Further and Higher Education (NATFHE), Association of University Teachers (AUT).
2. For example, items relating to 'sufficient' levels of resourcing or 'adequate' information may have been rated as 'essential' on the grounds that sufficient or adequate provision represents a minimum base line. The high rating may be the result of the wording of the statement rather than the importance of the aspect of educational quality referred to in the content of the statement. The team is indebted to Jean Tunnicliffe Wilson for this observation based on her experience of completing a questionnaire.
3. The criteria for determining the cut-off point were that the overall mean score should be at least 85+ and that no subgroup, institution or subject area should rate the item less than 78 and that there should be no more scores of 78 and 79 than there were compensatory scores of 90 or more.
4. The criteria of least importance are the 21 items that had a mean score for the sample as a whole of less than 67. The subgroup analysis shows a high degree of agreement about which items were seen as relatively unimportant.
5. Numbers in brackets are recoded mean scores for the particular group.
6. The sample of employers consists of 124 responses to a short questionnaire distributed to employers in the commercial and public sectors via the Association of Graduate Recruiters, the Association of District Councils and the Civil Service Commission.
Academics were asked 'how important, for judging the quality of higher education, is it that the programme develops within students the following?'. Employers were asked 'how important are the following qualities in selecting graduates for recruitment to your organisation?'
7. The following subject areas were classed as 'sciences': Agricultural, biological; Medical, dental, veterinary; Engineering, technology; Sciences (physics, maths, chemistry);
The social sciences included Business, management, finance, public administration; Health, nursing, social work; Education; Social science (including economics, politics and psychology); Architecture, building, planning, environmental studies; Law; Information studies/technology, communication, librarianship;
Arts included the Humanities (literature, history, philosophy.); Languages; Art, design, performing arts

