



THE
ROBERT GORDON
UNIVERSITY
ABERDEEN

ASSESSMENT SURVEY REPORT No 1:
EFFICIENCY AND EFFECTIVENESS IN ASSESSMENT

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EXECUTIVE SUMMARY

- **Assessment needs to be both effective and efficient. The Report identifies a number of key questions to enable staff to assess both effectiveness and efficiency.**
- **Using a modified Boston Consultancy Group (BCG) type matrix, an evaluation framework has been developed to identify the characteristics of efficient and effective assessment.**
- **Based on a survey of assessment methods carried out as part of a consultancy exercise for the International Federation of Accountants (IFAC) by CELT and the Department of Accounting and Finance of the Aberdeen Business School, a mapping of assessment methods has been conducted using the modified BCG framework.**
- **Overassessment is defined and its unintended consequences are explored.**
- **Based on a representative sample of the University's modules, it emerges that almost 50% of the modules are assessed exclusively by coursework which accounts for on average about two-thirds of a student's overall assessment.**
- **Staff spend on average 75 minutes assessing each student per annum which equates to almost 4 hours of staff assessment time per credit point**
- **Other things being equal, the amount of staff time spent on assessment was as expected related to the number of students.**
- **Little evidence was found of any links between staff time spent on assessment and other key factors such as credit rating or level of module.**
- **Students spend on average 45 hours per coursework element although there are very significant variations between faculties.**
- **Using a number of indicators to measure overassessment, no evidence was found of significant differences between faculties.**
- **There were some significant variations between different schools although the samples are too small to draw firm conclusions.**
- **To enable the university to track its efficiency and effectiveness in assessing students, and to evaluate the effectiveness of its Quality Enhancement policies it is recommended that data is collected annually.**
- **An anonymous benchmarking database across the whole HE sector should be established to allow inter-institutional comparisons to be made.**

INTRODUCTION¹

There is little doubt that the assessment process has become more onerous as the various stakeholders in the process demand more transparency, increased reliability and more accountability. The demands on staff have also significantly increased as a result of more student numbers, Quality Assurance Agency guidelines and the introduction of new university-wide systems such as the common grading scheme, anonymous and double marking. In addition, in spite of a significant increase in participation in higher education, the unit of resource has significantly declined by 38% and the average staff-student ratio across the sector of 17:1 in 2001, has increased by of over 40% on a decade ago (MacLeod 2001). Therefore staff are being put under increasing pressure to deliver an effective and an efficient way of assessing students.

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To be useful and to satisfy the criteria for being “good”, assessment methods must be both **effective** and **efficient**. Thus in evaluating various assessment methods some key questions need to be addressed. These can be listed below under two broad sets of criteria (a) Educational Effectiveness Criteria and (b) Management and Resources Efficiency Criteria

(a) Educational Effectiveness

When evaluating assessment methods there are a numbers of questions that come under this heading.

- What are the strengths and weaknesses of each assessment method?
- To what extent are the methods used educationally valid?
- To what extent are the assessment methods used closely linked with desired skills and competences?
- Are the assessment methods “constructively aligned” to the stated outcomes to use Biggs (1997) phrase?
- Does the assessment method match the task and outcomes?

¹ This is the first in a series of reports on assessment based on CELT’s annual survey of assessment. If you have any queries in relation to this report then please contact Win Hornby on 01224 263808 or 262285 or email him on w.hornby@rgu.ac.uk

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- Do students, staff and external agencies such as external examiners professional bodies and quality assurance agencies understand the criteria employed in the assessment method and what they are designed to assess?
- Is there over-reliance on just one mode of assessment such as formal unseen examinations?
- Are students overloaded thus encouraging coping strategies which lead to what Entwistle has described as "surface" as opposed to "deep" learning? (Entwistle 1981)
- Are there wide variations in marker reliability between one assessment method and another?
- Are there variations in the demands being made on students between different assessment methods?

Summarising these questions, effective assessment means according to Brown (2001), having methods of assessment which address these questions.

(b) Managerial and Resource Efficiency

Assessment also needs to be **efficient**. It needs to be **cost effective** as well as **manageable**. Thus at a time when resource constraints within most organisations are severe and when there is an expansion of students numbers, any assessment method which involves lots of staff time to undertake and to provide effective feedback to students will fail to be implemented successfully no matter how educationally sound it may be. In addition it is necessary for us to review existing practice since assessment methods designed for an era with a smaller and a more homogeneous student population are thus unlikely to be effective now. (Gibbs 1992).

The assessment methods used must also have **integrity and fidelity** and the costs of ensuring that assessment can achieve these must also be borne in mind. **Transparency** (both in terms of publishing the criteria and standards used in the assessment process and also in allowing students access to the methods and processes of assessment) is also an important consideration in evaluating assessment methods. Full **disclosure** of marks and grades is now no longer at the discretion of examiners. Students, as a result of legislative changes in the UK, now have a right of access to information about their assessments including comments made and marks/grades awarded. The costs of setting up systems to allow students to see all their assessments and to have access to comments and tutor evaluations must also be taken into account in evaluating assessment methods.

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Furthermore, if there is a reliance on assessment methods that are conducted in a student's own time there must be systems in place to guarantee **fidelity** and ensure that students are not plagiarising the work of others and that impersonation is not a factor. The cost of setting up policies on plagiarism and the development or purchase of anti-plagiarism software should also be a factor in assessing the efficiency of assessment methods. Anti-plagiarism software is now commercially available and there is now an extensive literature on this topic.² Thus in summary, each assessment method needs to be evaluated against a set of efficiency criteria.

Combining these two sets of criteria produces a matrix of possibilities. Figure 1 sets out possible evaluation criteria. Borrowing some of the terminology of the Boston Consultancy Group (BCG) matrix, (Hedley (1977), Hax, and Majiluf, (1990)) those assessment methods which meet both sets of criteria are in quadrant A and may be called "star methods". These would be highly recommended. Those that are low on both sets of criteria are in quadrant B and could be called WOTS (short for waste of time!) and should be avoided. There are however two other possibilities which, again using the BCG nomenclature, may be called "problem child number 1" in quadrant C (labelled "? # 1") and problem child number 2 in quadrant D (labelled "? # 2"). These indicate a conflict between educational criteria and managerial/resource criteria. For example, unseen examinations would be a good example of an assessment method which falls into quadrant C. It is highly efficient but not necessarily very effective educationally. Dissertations, on the other hand, might be regarded as highly effective in educational terms but require a lot of staff time supervising and assessing and may therefore score poorly on the efficiency dimension. They would therefore fall into quadrant D

Figure 1 Matrix of Criteria

		EDUCATIONAL Effectiveness	CRITERIA
		Low	High
MANAGERIAL/ ADMINISTRATIVE/ RESOURCE CRITERIA	High	C ?#1	A STARS
Efficiency	Low	B WOTs	D ?#2

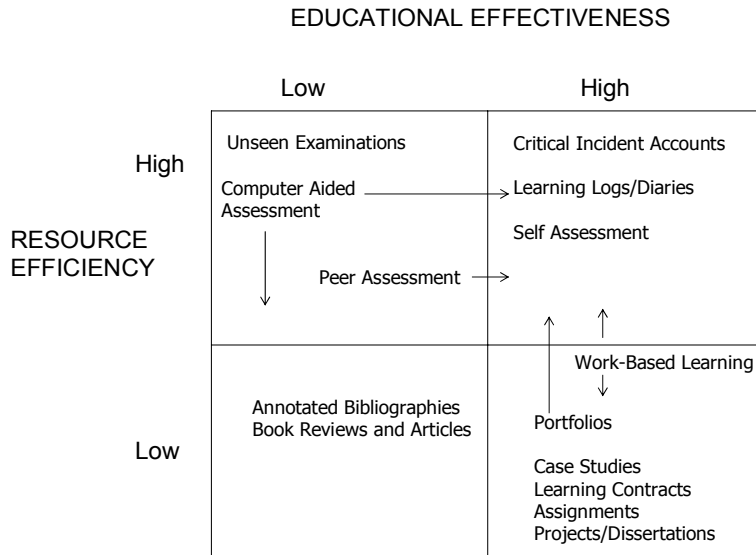
Source: Hornby (2003)

² For further details see Carroll and Appleton (2001), Cole and Kiss, (2000), Culwin and Lancaster (2001) Gajaghar,

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From an analysis of some possible assessment methods (CELT et al 2003), the following matrix has been produced.

Figure 2 Survey of Some Assessment Methods: Summary Findings



Source : Hornby (2003)

Whilst it is not possible to be absolutely definitive about the exact position of an assessment method’s position on this matrix, this evaluation tool does provide a useful device for evaluating the efficiency and effectiveness of assessment methods. It should be noted that the position of a given method of assessment on this matrix is in some cases capable of “shifting” or being “shifted” by making the assessment either more effective and/or more efficient in the way it is implemented.

OVER ASSESSMENT DEFINED

Overassessment is a symptom of an inefficient assessment regime. Overassessment on a course or a module is the situation that occurs when students are faced with too many instances of assessment. This could be too many assessed projects, too much coursework or overly long exams. There are many potential reasons for overassessment. These include the introduction of modularisation, poor design of assessments, department or school culture, examining learning outcomes more than once, too many learning outcomes, perceived requirements of professional

(2000) Van Bremmer, (1995)

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bodies or an inability to adapt to change. Other external parties may potentially play a role in overassessment. This may include the QAA, politicians and other powerful stakeholders. Ultimately overassessing students may lead to poorer grades, student and tutor fatigue, lower student morale and negative feedback about modules. In terms of the analytical framework above, overassessment tends to result in assessment techniques being located in quadrants B and D above

PROBLEMS WITH OVERASSESSMENT: The Unintended Consequences

Overassessment results in a number of unintended consequences. It is recognised that staff will often employ “coping strategies” to combat the problems of overassessment.

First to suffer is usually **the length of time between assessment and feedback**. Research shows that if there is a long gap between submission and feedback the opportunity for learning is diminished. (Feedback is like fish, so the old saying goes. It goes off after a few days!) There is clear evidence from student evaluation that this is a university wide problem. In nearly every evaluation of the student learning experience this is the one aspect which generally as a University we all score poorly.

A second unintended consequence is that there is **less feedback given** and hence less opportunity to discuss and clarify tutor’s comments. Staff complain that they simply do not have enough time to give detailed feedback or to meet with students to discuss feedback and hence a valuable learning opportunity is missed.

Finally, **formative assessment**, from which students could learn, **is sacrificed for summative assessment**, which as a consequence is often done less well. This is supported by the evidence of our own audit processes which indicates that there is very little evidence of formative assessment.

Thus what happens when there is overassessment is that there is an **inefficient use of both staff and student time** and the **assessment process becomes less effective**. Therefore there is a need to critically review our current assessment practices so that we can avoid these unintended consequences

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MEASURING OVERASSESSMENT: METHODOLOGY

Up until now evidence of overassessment has been collected via the AQAT internal audit process. There are a number of deficiencies in this evidence. Firstly, it is qualitative information and does not provide a reliable benchmark against which staff can evaluate their own assessment regime(s). Secondly, it relies exclusively on course leaders' evaluations with no corroborative evidence from teaching staff, students or external examiners. Thirdly, it does not provide comparative indicators either across the University or over time.

Thus data on potential over-assessment was obtained from the assessment questionnaire that CELT undertook in May and June of 2003. The objective of the survey was to investigate teaching practices and assessment within the University. Data was gathered on one module per respondent. This data included the following:

- total assessment time for all staff including all elements of assessment
- the number of learning outcomes
- whether learning outcomes are assessed more than once
- length of exam and whether the contents are known prior to the exam day
- the number of students this session and last
- the number of credit points
- typical student hours per coursework³
- module level
- number of instances of coursework
- the assessment mix (exam only, exam and coursework, coursework only)
- percentage of final mark from coursework
- summative or formative element of coursework

Additionally other survey data identified in which School each module is taught. Therefore each assessment practice can be analysed on a Faculty basis, based on a sample of 165 respondents.⁴

AN ANALYSIS OF ASSESSMENT METHODS⁵

From the data obtained from the assessment survey almost 50% of all modules surveyed assessed by coursework only⁶, with only 3.1% assessing exclusively by unseen examination

³ Coursework here refers to any non exam assignments that count towards the final mark of a module.

⁴ Analysis on a school basis is not viable because of the small numbers involved. See Appendix A for response rates

⁵ Because of the size of the sample it was not possible to analyse individual forms of coursework.

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Examinations which are seen prior to the assessment are comparatively rare with only 7.6% of modules being assessed by examinations which are either wholly or partially seen.

Table 1 How is the module assessed? Split by Faculty⁷

	Exam Only	CW & Exam	CW Only
Whole University	3.1	43.6	49.7
Faculty of Design & Tech	0	50	50
Faculty of Health & Soc Care	6.6	29.5	55.7
Faculty of Mgt / ABS	1.8	56.4	40

The proportion of a student's final assessment which is attributable to coursework varies according to faculty as table 2 indicates. On average about two thirds of a student's assessment is attributable to coursework. This figure is arrived at by the fact that about one third of all modules give course work a weighting of about 30% and about half of all modules surveyed are assessed entirely by coursework. It would appear that staff in the Faculty of Health and Care tend to use coursework more frequently and attach a greater weight to it than staff in other Faculties in the University.

Table 2. What percentage of a student's final assessment is attributable to coursework?

	Mean	Median	St Dev
Whole University	67.98	100	33.89
Faculty of Des & Tech	62.94	50	34.92
Faculty of Health & Soc Care	74.90	100	34.29
Faculty of Mgt / ABS	64.35	50	31.35

⁶ There could potentially be a slight element of double counting since respondents were asked to self select a module on which to base their answers. It is therefore possible that different respondents may have chosen the same module.

⁷ Rows may not sum to 100 because of rounding or respondents selecting the "other" option.

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How many times students are assessed is a key question in trying to evaluate how efficient (and to some extent how effective) assessment is. Table 3 below gives the data from the survey.

Table 3 How many instance of coursework?⁸

Number of Instances of Coursework

	%
No coursework	1.4
One instance of coursework	57.8
two instances of coursework	27.2
three to ten instances of coursework	10.9
Over ten instances of coursework	2.7

In almost 40% of the modules surveyed there are two or more instances of coursework assessment. In addition it was found that on average across the university students spent about 40 hours per coursework assessment although there were very significant variations across the faculties with students spending on average 70 hours in the Faculty of Design and Technology⁹ and 34 hours in the Faculty of Management/Aberdeen Business School. Given that the vast majority of the modules surveyed had a 15 credit rating, the evidence suggests that there is little relationship between student effort expended on coursework a credit rating of the module.

OVERASSESSMENT MEASURES

Data from the assessment questionnaire were used to construct a number of variables which can be used as potential measures of overassessment. Essentially each of these measures is an input - output measure. The output is staff time taken to assess a module based on staff estimates. The inputs are number of students, the credit rating or some combination of the two. Thus there are three measures. These include assessment time per student, assessment time deflated by credit points and an assessment metric which uses a combination of the two. Average numbers based on these numbers can be used as benchmarks for module coordinators to use to gauge whether they are overassessing in their modules.

⁸ The two instances of zero coursework assessments and the one instance of 27 instances of assessment are all from the Faculty of Health and Social Care.

⁹ The high mean figure is driven by Gray's School of Art and Scott Sutherland with median hours of 300 and 40 respectively compared to 9 and 6 hours for Computing and Engineering respectively.

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Assessment time per student is a straightforward measure of overassessment which takes account of module size. It is calculated as follows;

Total assessment time for all staff involved in module

Total student numbers in module

A high figure of this measure may suggest overassessment.

As can be seen from table 4 below, for the whole university the average time taken to assess each student is 1.25 hours or around 75 minutes. The median time is lower and is 1 hour per student. On a faculty basis it would appear there is little difference between the different parts of the University. In other words using either the mean or median figures for assessment time per student there is no evidence of a systematic tendency of one faculty to overassess in comparison with others. We do not however know how RGU compares with other universities.

Table 4

Assessment Time per Student (Hours)^{10 11}

	Mean	Median	St Deviation
Whole University	1.24	1.00	1.06
Faculty of Design & Tech	1.15	0.95	1.02
Faculty of Health & Soc Care	1.25	0.96	1.18
Faculty of Mgt / ABS	1.24	1.00	0.94

¹⁰ The bottom and top 1 % of values have been trimmed. Assessment time per student is calculated by deflating the total assessment time for all students by the number of students in each module.

¹¹ No statistical differences were found across the Faculties using univariate analysis.

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A second measure takes into account the credit rating of a module. Thus other things being equal, one might expect that the more credits awarded to a module the longer time staff would spend assessing students. The investigation of overassessment using credit points instead of student numbers is also a novel method. Assessment time deflated by credit points is a basic but informative measure of staff time.¹² It is calculated as follows:

Total assessment time for all staff involved in module

Total Credit Points for module

Other things being equal, modules with high credit points are likely to be perceived as more important to students and staff than modules with a lower credit rating and are therefore likely to involve more student and staff assessment time. If assessment is efficient however it would be expected that there would be a similar time spent by staff per credit unit. Therefore a high figure suggests some degree of overassessment. Modules with few credit points should not take an excessive amount of hours to assess.

Table 5

Assessment time deflated by credit points^{13 14}

	Mean	Median	St Deviation
Whole University	3.84	2.43	3.91
Faculty of Des & Tech	2.98	2.00	4.18
Faculty of Health & Soc Care	4.38	2.67	4.54
Faculty of Mgt / ABS	3.44	2.40	2.42

The results are given in table 2 above and suggest that for the University as a whole it takes just under four hours on average to assess each credit point. Statistically the Faculty of Design and

¹² However it should be noted that the vast majority of modules in the Assessment Survey consist of 15 credit points (85 %). The rest tend to be fractions or multiples of 15 points.

¹³ This variable is defined as total assessment time for all students deflated by the credit points of individual modules. The bottom and top 1 % of values have been trimmed.

¹⁴ Univariate analysis suggests that there is potentially less overassessment (or more underassessment) at Design and Technology.

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Technology spend the least amount of time on assessment per credit point. This finding is significant at the 5 % level. The most time per credit point occurs at Health and Social Care. This may point to a degree of overassessment in that Faculty. It suggests that for each credit point in that faculty relatively more time is spent in assessing students. There is no obvious explanation for the divergence between Faculties, It may be because of different assessment cultures, and /or different requirements from professional bodies.

Another overassessment metric is also presented. It takes account of the size of a module as well as its weight in terms of credit points. The unit is student-credit hours.

It is defined as follows:

$$\text{Total assessment time for all staff involved in module} \\ \text{(Total Credit Points for module * No of Students in module)}$$

As with the prior two measures, a high figure would possibly suggest overassessment in relation to class size and the importance of the module to students (module credit points).

Table 6

Assessment Metric^{15 16}

	Mean	Median	St Deviation
Whole University	8.41	6.00	9.38
Faculty of Des & Tech	7.79	4.41	9.42
Faculty of Health & Soc Care	8.46	5.57	9.20
Faculty of Mgt / ABS	7.66	6.67	5.74

The metric results are given in table 6 above and for the whole University are a mean of 8.41 and a median of 6. However there are no statistical differences between the Faculties. This suggests

¹⁵ The actual formula is - (total assessment time for the module / (no of students * credit points))*100. A high value of this variable may suggest over assessment.

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that on this measure, there appears to be little evidence to support the view that there is overassessment.

However in interpreting the data, these results should be treated with caution. Firstly, the data holds true only at faculty level. The average can thus hide significant inter-school differences. Secondly, it could be argued that overassessment is an absolute measure not a relative one. Thus it might be that all faculties are “guilty” of overassessment in equal measure. We have no “benchmark” for these indices since this is the first time that the exercise has been carried out. It would be hoped that these could be collected annually so that a time series of data could be built up to assess broad movements. This would enable the University to answer such questions as: are we becoming more or less efficient? In addition, it would be helpful if there was an anonymous database of other higher education institutions in Scotland, similar to the benchmarking databases used in the oil industry for example, against which inter-institutional and inter-discipline comparisons could be made.

Determinants of Time Spent on Total Staff Assessment¹⁷

A number of factors can affect the amount of time spent by staff assessing students

1. number of students taking module
2. ratings of module
3. typical student hours on coursework
4. number of Learning outcomes
5. module level
6. formative or summative assessment used
7. number of instances of coursework

Running a number of models using OLS regression analysis indicates that **student numbers** significantly affects the time spent by staff assessing students as one might expect. In addition the **module level** was significant and some models suggest **that average student hours on spent on coursework** also influenced staff assessment time. There was some evidence that whether an assessment was **summative or formative** determined the amount of time spent on it, with formative assessment taking longer. However variables such as **module rating, the number of learning outcomes or the number of instances of coursework** were not significant factors affecting time spent by staff assessing students.

¹⁶ No statistical differences were found across the Faculties using univariate analysis.

¹⁷ For details see Appendix B

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Conclusions

Assessment needs to be both efficient and effective. Some assessment instruments are more efficient than others. An evaluation framework based on the BCG model has evaluated a number of different techniques. For example, whilst unseen examinations are evaluated as highly efficient there are concerns about how effective they are as an assessment instrument.

Based on the data obtained from the CELT Assessment survey and using a variety of measures of overassessment, no evidence was found of systematic overassessment between faculties. However these results need to be treated with caution as they mask considerable variations between modules and between schools. There was some evidence of overassessment in some parts of the University, although the evidence is based on small sample numbers.

The amount of staff time expended on assessment was affected by the number of students as might have been expected. Perhaps more surprisingly it was not however affected by credit rating or by the number of learning outcomes assessed. Nor was there any evidence of a link between level of the module being assessed and amount of staff time expended. In addition there was little evidence of a link between students effort expended on assessment and credit rating. This suggests that there may still be a number of inefficiencies in the way that we assess students.

Finally, to enable the university to track its efficiency and effectiveness in assessing students, and to evaluate the effectiveness of its Quality Enhancement policies it is recommended that data is collected annually. Ideally, an anonymous benchmarking database across the whole HE sector could be established to allow inter-institutional comparisons to be made.

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APPENDIX A

The response rate for the survey was 168 from 538 members of academic staff returned the questionnaire completed. Overall the response rate of the survey was just under a third. However on a school by school basis the response rate varied from a low of 14 % to a high of 69 %. Some of this variation may be explained by the higher proportion of research assistants and fellows in some schools who often have few teaching duties. However research assistants and fellows make up less than 10 % of the total academic population. An analysis of the distribution of response compared with the University population of the whole indicated that the sample was representative and contained no systematic bias.

Table A1 Response Rate by School

Department / School (Including Centres)	Total¹⁸	Responses	% Response
Department of Accounting and Finance	15.00	7.00	46.67
Department of Business Management	20.00	10.00	50.00
Department of Communications and Languages	14.00	5.00	35.71
Department of Economics and Politics	16.00	5.00	31.25
Department of Hotel, Tourism & Retail Management	13.00	9.00	69.23
Department of Human Resource Management	16.00	5.00	31.25
Department of Information Management	21.00	3.00	14.29
Department of Law	17.00	7.00	41.18
Department of Marketing	8.00	4.00	50.00
School of Computing	50.00	17.00	34.00
School of Engineering	56.00	9.00	16.07
Gray's School of Art	49.00	7.00	14.29
The Scott Sutherland School	43.00	11.00	25.58
School of Applied Social Studies	38.00	12.00	31.58
School of Health Sciences	23.00	8.00	34.78
School of Life Sciences	28.00	6.00	21.43
School of Nursing and Midwifery	78.00	27.00	34.62
School of Pharmacy	26.00	9.00	34.62
Others (CELT & CenSa)	5.00	5.00	100.00 ¹⁹
Non respondents to this question	2.00	2.00	100.00
Total Response Rate	538.00	168.00	31.23

¹⁸ The total number of academic staff in each department / school was obtained from Human Resources in May 2003.

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APPENDIX B

Table B 1

Determinants of Time Spent on Total Staff Assessment using OLS Regression

Panel A – The Whole University

no of students taking module	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %
ratings of module	n/s	n/s	n/s	n/s	n/s	n/s	n/s
typical student hours on coursework	n/s	+ 10 %	+ 5 %	+ 5 %	+ 5 %	-	-
Number of Learning Outcomes	n/s	n/s	n/s	n/s	-	-	-
module level	n/s	n/s	n/s	-	-	-	-
formative or summative assessment used	+ 10 %	+ 10 %	-	-	-	-	-
no of instances of coursework	n/s	-	-	-	-	-	-

Panel B – Design and Technology

no of students taking module	n/s	n/s	n/s	+ 10 %	+ 10 %	n/s	n/s
ratings of module	n/s	n/s	n/s	n/s	n/s	n/s	n/s
typical student hours on coursework	n/s	n/s	n/s	+ 10 %	+ 10 %	-	-
Number of Learning Outcomes	n/s	n/s	n/s	n/s	-	-	-
module level	n/s	n/s	n/s	-	-	-	-
formative or summative assessment used	n/s	n/s	-	-	-	-	-
no of instances of coursework	n/s	-	-	-	-	-	-

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Table B 1 (ctd)

Determinants of Time Spent on Total Staff Assessment using OLS Regression

Panel C – Health and Social Care

no of students taking module	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %
ratings of module	n/s	n/s	n/s	n/s	n/s	n/s	n/s
typical student hours on coursework	n/s	n/s	n/s	n/s	n/s	-	-
Number of Learning Outcomes	n/s	n/s	n/s	n/s	-	-	-
module level	n/s	n/s	n/s	-	-	-	-
formative or summative assessment used	n/s	n/s	-	-	-	-	-
no of instances of coursework	n/s	-	-	-	-	-	-

Panel D – Faculty of Management / Business School

no of students taking module	n/s	n/s	n/s	n/s	n/s	n/s	n/s
ratings of module	n/s	n/s	n/s	n/s	n/s	+ 1 %	-
typical student hours on coursework	n/s	n/s	+ 5 %	+ 5 %	+ 5 %	-	-
Number of Learning Outcomes	n/s	n/s	n/s	n/s	-	-	-
module level	+ 5%	+ 5 %	+ 10 %	-	-	-	-
formative or summative assessment used	n/s	n/s	-	-	-	-	-
no of instances of coursework	n/s	-	-	-	-	-	-

ASSESSMENT SURVEY REPORT NO 1: EFFICIENCY AND EFFECTIVENESS IN ASSESSMENT

Table B 2

Determinants of Staff Hours Spent on Assessment using OLS regression
(The dependent variable is total staff hours on assessment per module deflated by the number of students per module)

ratings of module	n/s	n/s	n/s	n/s	n/s	- 10 %
student hour on instances of coursework	+ 5 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %	-
no of LOs	n/s	n/s	n/s	n/s	-	-
module level	+ 1 %	+ 1 %	+ 1 %	-	-	-
formative or summative	n/s	n/s	-	-	-	-
no of CWs	n/s	-	-	-	-	-
D & Techn	n/s	n/s	n/s	- 5 %	- 10 %	- 10 %
H & S Care	n/s	n/s	n/s	- 10 %	- 10 %	- 10 %
Mgt / ABS	n/s	n/s	n/s	- 5 %	- 10 %	- 10 %

Table B 3

The Determinants of Coursework Contribution to the Final Assessment Mark using OLS Regression

ratings of module	n/s	+ 5 %	+ 10 %	+ 5 %	+ 5 %
no of LOs	n/s	n/s	n/s	n/s	-
module level	n/s	n/s	n/s	-	-
formative or summative	n/s	n/s	-	-	-
no of CWs	n/s	-	-	-	-
D & Techn	n/s	n/s	n/s	n/s	n/s
H & S Care	n/s	n/s	n/s	n/s	n/s
Mgt / ABS	n/s	n/s	n/s	n/s	n/s

ASSESSMENT SURVEY REPORT NO 1: EFFICIENCY AND EFFECTIVENESS IN ASSESSMENT

Table B 4

Determinants of the total coursework time for a typical student using OLS regression

ratings of module	+ 1 %	+ 1 %	+ 1 %	+ 1 %	+ 1 %
no of LOs	n/s	n/s	n/s	n/s	-
module level	n/s	n/s	n/s	-	-
no of CWs	n/s	n/s	-	-	-
% final mark from CW	+ 5 %	-	-	-	-
D & Techn	n/s	n/s	n/s	n/s	n/s
H & S Care	n/s	n/s	n/s	n/s	n/s
Mgt / ABS	n/s	n/s	n/s	n/s	n/s

Table B 5

Determinants of the Assessment Metric (Whole University) Using OLS Regression²⁰

level of module	+ 1 %	+ 1 %	+ 1 %	+ 1 %
no of CWs	n/s	n/s	n/s	
formative / summative	n/s	n/s		
no of LOs	n/s			
D & Techn	- 1 %	- 1 %	- 1 %	- 1 %
H & Social Care	- 1 %	- 1 %	- 1 %	- 1 %
Mgt	- 1 %	- 1 %	- 1 %	- 1 %

²⁰ The assessment metric is defined in the following way - - (total assessment time for the module / (no of students * credit points))*100. A high value of this variable may suggest over assessment.

ASSESSMENT SURVEY REPORT NO 1: EFFICIENCY AND EFFECTIVENESS IN ASSESSMENT

Table B 6

Determinants of the Assessment Metric (Without Faculty Dummies) Using OLS Regression²¹

Panel A – Whole University

level of module	+ 1 %	+ 1 %	+ 1 %	+ 1 %
no of CWs	n/s	n/s	n/s	
formative / summative	n/s	n/s		
no of LOs	n/s			

Panel B – Design & Technology

level of module	n/s	n/s	n/s	n/s
no of CWs	n/s	n/s	n/s	
formative / summative	n/s	n/s		
no of LOs	n/s			

Panel C – Health & Social Care

level of module	n/s	n/s	n/s	+ 5 %
no of CWs	n/s	n/s	n/s	
formative / summative	n/s	n/s		
no of LOs	n/s			

Panel D – Management / ABS

level of module	+ 1 %	+ 1 %	+ 1 %	+ 1 %
no of CWs	+ 1 %	+ 5 %	+ 5 %	
formative / summative	n/s	n/s		
no of LOs	n/s			

²¹ The assessment metric is defined in the following way - - (total assessment time for the module / (no of students * credit points))*100. A high value of this variable may suggest over assessment.

ASSESSMENT SURVEY REPORT NO 1: EFFICIENCY AND EFFECTIVENESS IN ASSESSMENT

Table 10

Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) total assessment time									
(2) typical CW time	0.149								
(3) ratings of modules	0.049	0.467							
(4) assessment matrix	0.247	0.057	-0.238						
(5) how many students	0.546	-0.057	-0.048	-0.281					
(6) no of LOs	-0.098	0.084	0.050	0.043	-0.239				
(7) level module taught	-0.140	0.006	-0.035	0.338	-0.424	0.147			
(8) formative or summative	0.184	0.312	0.161	-0.023	0.012	0.113	0.047		
(9) instances of assessment	-0.047	-0.073	-0.032	0.013	0.058	0.007	-0.054	-0.121	
(10) % of final mark from CW	-0.089	0.170	0.148	-0.108	-0.028	0.020	0.006	0.130	0.046