

## **Exploring the use of a gap analysis approach for quantitative evaluation of teaching effectiveness**

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### **Introduction**

The article investigates the potential of an adaptation of the SERVQUAL approach for obtaining student feedback. The technique involves measuring the gaps between what students want in terms of teaching delivery and what they actually receive, thereby enabling areas for improvement to be identified. Improving the effectiveness of classroom teaching so as to enhance the students' learning experience is frequently viewed as a key to raising retention rates. Student feedback, just one of many indicators of teaching quality, plays a crucial role in teaching enhancement. Whilst informal methods are also useful for teaching appraisal, this project investigates a formal approach for obtaining student feedback. If a SERVQUAL type approach can be adapted using a fairly short questionnaire then it may prove a useful alternative / supplement to traditional survey methods for evaluating teaching effectiveness. The project focuses on several undergraduate and postgraduate business Marketing modules and was conducted to see whether the technique offers any particular benefits which the Department of Business and Service Sector Management may use in the future

### **The SERVQUAL Technique**

SERVQUAL, developed by Parasuraman *et al* (1988), is a technique for identifying how customer service experiences can be enhanced and has become widely adopted in commercial service settings. Perceived quality of service delivery is assessed by measuring gaps between the expected levels of service, what people want and performance or satisfaction with that they actually delivered. More recently SERVQUAL has been applied to the Education Sector and the evaluation of classroom teaching (e.g., Narasimhan 1997).

The research reported here adapts the SERVQUAL gap analysis approach for evaluating teaching effectiveness and includes several other indicators. By testing out a pilot questionnaire and interviewing lecturers (including two programme leaders, as well as a Departmental Head) regarding the perceived value of the results, an appraisal of the approach is provided. The potential of the approach as a supplement to survey methods evaluating teaching effectiveness is considered.

## The evaluation instrument

A short questionnaire was developed on the basis of substantial qualitative student feedback collected in five marketing modules. Analysis of the qualitative data identified the teaching dimensions considered most important to students. It was considered important to limit the questionnaire to two pages as longer forms inevitably take more time to administer, process and analyse and are therefore less likely to be adopted by lecturers. Accordingly the survey focuses on the 10 most frequently mentioned aspects of teaching delivery. The questionnaire does, however, have an open ended section to capture data concerning any other important considerations specific to individual modules.

After piloting the questionnaire it was administered to both undergraduate and postgraduate students taking three business modules, taught by different lecturers. For each module feedback was collected from approximately 30 students. The questionnaire data were processed and analysed using SPSS (Statistical Package for the Social Sciences).

The two page questionnaire comprised the following sections:

- General opinion indicators about the module:
  - Rating in terms of giving an insight to the subject
  - Rating of the extent to which students would recommend the module
- Expectation and performance ratings along the 10 core dimension of teaching delivery
- Open ended section for students to indicate any particular likes and dislikes, or areas for improvement, concerning the module.

Lecturers were provided with feedback for their respective modules, as well as a summary of the results from all three modules. As shown in appendix A, the data yielded average student ratings of various aspects of the teaching-learning process. Across the 3 modules the students' ratings of the importance of the 10 items were very similar and accordingly they have been combined and presented for the sample as a whole.

It should be remembered that the modules were from different degree programmes, involved students from different class sizes and different levels of study, also two of the modules involved more than one lecturer, whilst the third module was taught by just one. Direct comparison between the modules is not therefore relevant. Nevertheless the lecturers providing feedback on the survey made numerous comments regarding the potential of the technique for making comparisons between modules (see below).

At least 50 qualitative comments were forthcoming for each module. They added insight into student perceptions and generally supported the quantitative findings in that on the whole all three modules were well received. Owing to space limitations the only the three most frequently mentioned likes and dislikes are presented for each module, by way of illustration (see appendix B).

## **Appraisal of the module evaluation approach**

Depth interviews with academic staff regarding the approach revealed a predominantly favourable opinion. The main likes / positive comments expressed are presented below and appear in approximate order of frequency of mention:

- Rational / logical approach and methodology
- Quantifies student opinions and presents them in a clear visual manner
- Measuring performance against expectation reveals how to enhance student experience
- Helps to identify both strengths as well as areas for improvement / adjustment
- Provides quantitative data and can therefore monitor performance / changes in the future.
- Quantitative data enable comparisons across my own modules / as well as programmes
- General overall module ratings provide good insight to overall opinion of the module
- The qualitative section provides added detail / insight
- Simple to administer
- Students were positive about the form / feedback exercise
- Additional qualitative feedback informative and support the quantitative findings
- Objective approach; qualitative feedback is frequently prone to subjectivity and bias
- Qualitative section identifies any teaching delivery dimensions not covered in the scales
- Quantitative scales can be quickly processed using a scanner / data reader
- Recognised methodology grounded in literature

Despite the positive feedback quite a number of dislikes and concerns were also expressed about the approach:

- Prescribed scales may miss out some crucial variables / module specific factors
- Focuses on presentation / delivery rather than module content
- Not module specific, i.e., no questions specific to individual sessions in the module
- Requires larger classes to provide quantitative feedback (won't work on smaller classes)
- Won't identify real problem; less liked modules get lower scores on any dimensions rated
- Time consuming and processing requires knowledge of SPSS / survey software
- Some students initially confused at rating importance rather than the module

- Even though an established approach, it uses discrete data as continuous, defying the laws of statistics.
- More useful if I could 'bolt on' my own questions to the standard questionnaire
- All three modules are fairly well received; how will it work on weaker modules?

Opinions regarding about the utility of the approach for making comparisons between modules were not so varied, but clear themes emerge. Likes and positive comments included:

- Could be used by individual lecturers to evaluate performance across their own modules.
- Helpful for identifying courses requiring more attention / or which to drop
- Good way to compare modules and identify weaknesses / areas for improvement within a programme. Thereby helping in decision making and resource planning.... It's easier to make recommendations on the basis of a grounded methodology.
- Interesting to see how my modules compare to other lecturers in the Department
- Maybe useful to use within a group i.e. as part of a peer observation exercise rather than anything official
- May help to identify best practise, e.g., subsequent observation of a module seen as excelling on any particular teaching dimension
- Questionnaire could be further shortened, as you don't necessarily have to get all students to do importance ratings. A consensus obtained from ~100 students should be a reasonable indicator.

Dislikes and concerns about using the approach for making comparisons between modules included:

- Individual lecturers would prefer results just for their module(s) and not seeing comparison with others
- Colleagues may view such an exercise as threatening / would worry about its purpose
- Confident lecturers will be happy to use it; weaker ones won't want to expose themselves to the exercise.
- Any comparison across modules must be administered impartially and results written up by someone not involved with the programme.
- Such an exercise would have to have full backing of scheme directors and head of department.
- Requires all lecturers to administer questionnaires in exactly the same manner to be comparable
- All dimensions are important so the relative importance scores are irrelevant
- Importance scores will vary across modules so shouldn't have an overall measure

## Conclusion

The evaluation exercise was positively received by both the students and the academic staff involved. The gap analysis technique does provide insights into strengths and weaknesses in teaching delivery and is particularly useful when examined in conjunction with qualitative student feedback. The main apprehensions concern being able to tailor the approach to individual modules, as well as the time and skills necessary for administering and analysing such data.

The evaluation method also appears to offer some potential for making comparisons between modules, particularly if taught by the same lecturer, or those within the same degree programme. However, gaining the confidence and commitment of staff involved in any formal Departmental evaluation would perhaps be difficult given the perceived implications of comparing one lecturers scores with another. Nevertheless the academic staff involved in the research exercise still found this aspect interesting.

Overall the three modules were positively received by students, with a majority indicating that they had gained a good insight into the subject and that they would recommend it to other students. Over the next semester an attempt will be made to administer the questionnaire on modules with historically lower pass rates. This will enable the sensitivity of the instrument to be assessed, as well as producing feedback from lecturers who may feel more threatened by the exercise. This next stage of the research will provide a clearer picture of the potential of the approach for evaluating teaching practise.

## References

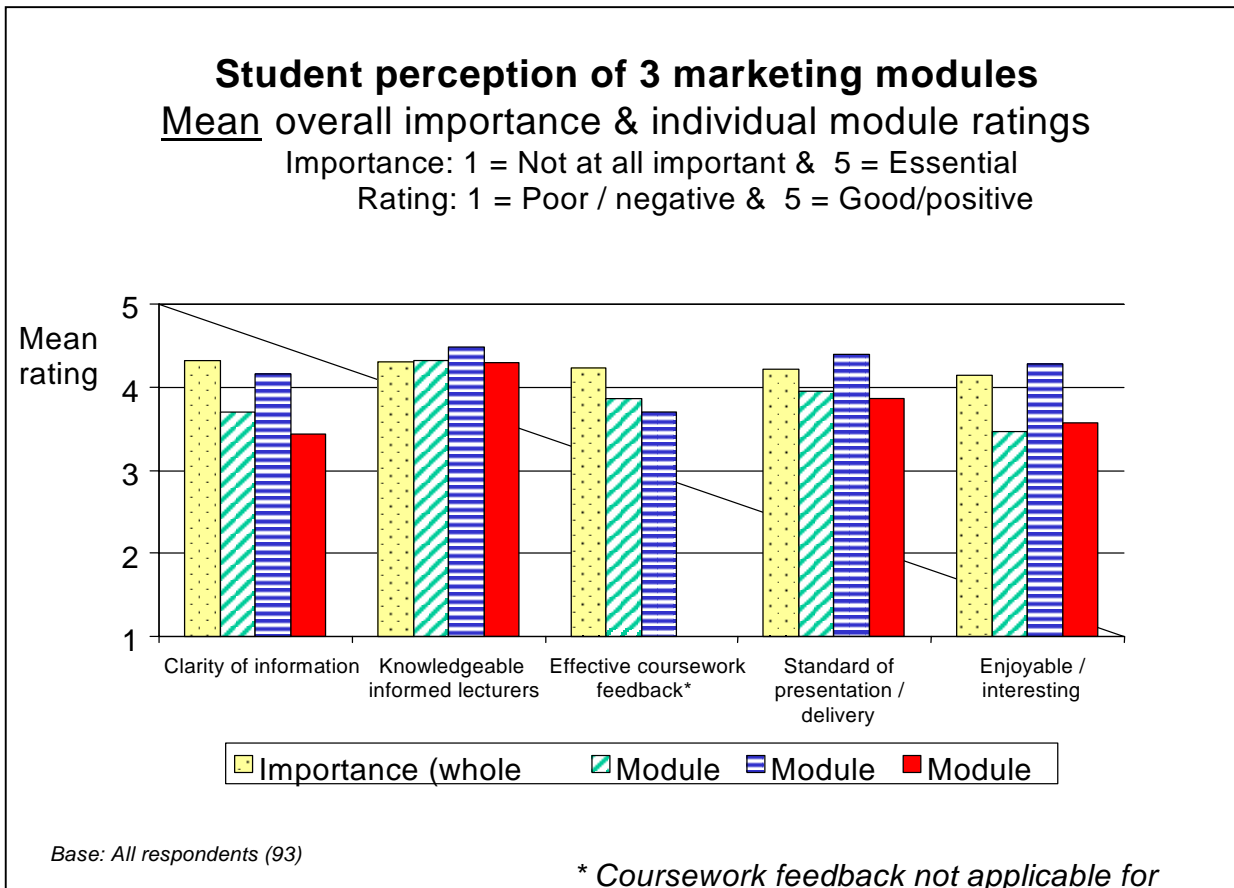
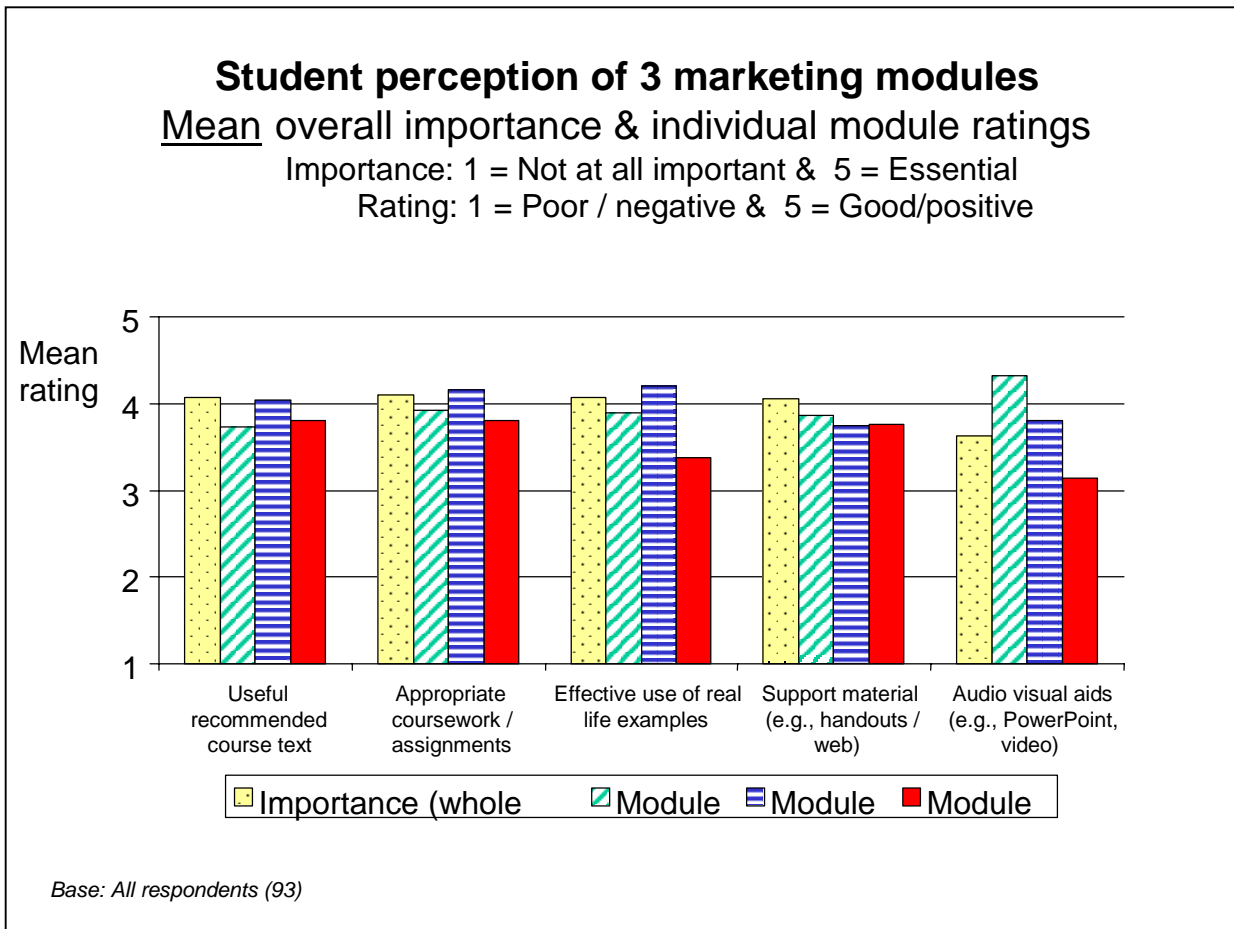
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## Biographical note

Steve Greenland has a PhD and a Masters degree in Marketing. He is currently a Senior Lecturer in Marketing at the London Metropolitan University, specialising in Market and Social Research and Consumer Behaviour. Prior to this he worked in the market research industry in Europe and Africa. He has managed national and international, quantitative and qualitative projects for a broad range of commercial and public organisations. Within the service sector he has coordinated multi country studies assessing service quality for several international banks and airlines. Within the education sector he has worked on DFID (Department for International Development) funded projects involving assessment of the effectiveness of classroom teaching, as well as resource allocation to primary schools in East Africa.  
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**Appendix A: Student perceptions of three modules along 10 key dimensions**



## Appendix B: Summary of the qualitative student feedback

<b>Module A</b> Frequency of mention	<b>Likes</b>
8	Group project / assignment
6	Effective & knowledgeable / experienced lecturers
4	Clear structure / well organised
	<b>Dislikes / areas for improvement</b>
4	Course text
4	Repetition of other modules
4	Notes not easily downloaded from module website

<b>Module B</b> Frequency of mention	<b>Likes</b>
10	Lecturer's presentation style / knowledgeable
3	Valuable to future career / relevance
2	Interesting / informative subject
	<b>Dislikes / areas for improvement</b>
3	Confused over some of the concepts / covered too fast
2	More participation of guest speakers from industry
2	More video case study material

<b>Module C</b> Frequency of mention	<b>Likes</b>
6	Lecturers knowledgeable / experienced
3	Clear module structure
2	Practical project
	<b>Dislikes / areas for improvement</b>
9	More class work / guidance on practical project
3	Availability of SPSS software from library
2	More class exercises