
Designing student feedback questionnaires

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Abstract

This article reviews the literature on student feedback questionnaires (SFQs), with a view to proposing some guidelines for the design of SFQs, and the processes associated with data collection, analysis and use. Despite a long and established tradition of use, practice in this area remains diverse, and research generates debate. This article first reviews the literature and surfaces the concerns about current work in this area, and then discusses the following questions that need to be considered in the research design for the collection of student feedback: What are the objectives of the evaluation process? Can standard questionnaires be developed to serve a range of purposes? What issues should be covered by the questions included on the questionnaire? How should data be collected, analysed and used? Answers to these questions should influence the exact design that is undertaken in different circumstances.

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Introduction

Student evaluation of teaching (SET) or, we might argue, student evaluation of learning (SEL) is an important component of quality management systems in higher education, and may also contribute to student reflection upon their learning. In the UK there is an expectation that module or course evaluation is embedded in quality management systems. A common approach to data collection is to use feedback questionnaires, although a wide range of other options, such as focus groups, and snowball evaluation can be adopted. However, in general there has been limited sharing of practice in this area. For example, Coles, as recently as 2002, says:

... there would seem to be little uniformity about the content and delivery of the actual assessment instrument, the value of the results and the usage to which the results may be put (Coles, 2002, p. 30).

In the USA and Australia, where student feedback influences tenure and promotion decisions, a significant industry has grown up which seeks to dispute the validity of such instruments, and to pursue the design of more robust instruments. This has fuelled a very quantitative approach to questionnaire design which assumes that there are a number of independent variables that influence student evaluation, attitudes, or expressions of satisfaction. Despite all of this work, Westerman *et al.* (2002, p. 5) assert that:

... few instructors reported changing instructions as a result of student ratings. Moreover, few supported sending evaluation results directly to college administrators or publishing them for student consumption.

These indicators and the debate about validity and appropriateness that is summarised below would suggest that there remains a need to revisit issues around the design and use of student feedback questionnaires. This article first reviews the literature and surfaces the concerns about current work in this area, and then proposes a number of questions that need to be considered in the research design for the collection of student feedback. Answers to these questions should influence the exact design that is undertaken in different circumstances.



Concerns and contentions

Despite the recognised significance of the quality of teaching and learning, and the need to gather data on student perceptions of teaching and learning, there is a considerable level of disagreement as to the value of SET. Much of the research on SET has been conducted in the USA and Australia, where SET data often inform decisions on tenure and promotion.

A further issue that should be made explicit at an early stage is that the design of student evaluation tools is a political process. Such tools can be designed for a positive outcome. Indeed, it might be argued that this is one of the great dangers of leaving questionnaire design to individual tutors.

Opposition to student feedback questionnaires draws on two types of arguments: those associated with legal and educational policy arguments, and those associated with the validity of the methodologies adopted (Westerman *et al.*, 2002).

Tackling the first of these categories of arguments, some would express fundamental doubts about whether students have the capacity to evaluate a class, and it is suggested that there is a range of extraneous factors that affect their evaluation. Students might be in a better position to evaluate courses two to three years after they have completed the course than at its immediate conclusion. In addition, there is considerable danger in applying the concept of customer or consumer to students, when the concept of client or community member is more appropriate (Coles, 2002).

Research suggests that course, tutor and student characteristics may affect evaluation outcomes. In the context of course characteristics, outcomes may be influenced by electivity, level of course, subject area and workload. Coles (2002) shows that satisfaction is decreased when class sizes are larger, in earlier cohorts, and when students are taking obligatory modules rather than optional modules. This issue of centrality/peripherality is cited as having a significant impact. The effect on satisfaction ratings of students who have to study modules that they would not choose to study should not be overlooked. For tutors, the effect of factors such as rank and experience, reputation and research skill of the instructor, gender, minority status and

physical appearance has been investigated. Finally, there is evidence that the characteristics of students may also influence evaluation. Worthington (2002) has, for example, undertaken a study that demonstrates that expected grade, ethnic background, gender and age are significant influences on student ratings. Others have postulated a relationship between prior subject interest and teaching ratings (Watchel, 1998).

There has also been some research conducted on student perceptions and expectations. Theory building on service quality has privileged the concepts of expectation and perceptions in the process associated with the formulation of quality judgements. In the educational quality contexts, Worthington (2002) identifies three hypotheses on which there has been some research, but for which no clear answers emerge. These are:

- (1) The effect of expected grade on student ratings.
- (2) The effect of student prior expectations about the instructor.
- (3) The students' attitudes towards engagement in the teaching evaluation process, and their willingness to provide quality data to the process.

In addition, the impact of student perceptions and characteristics is also shown to vary across the various dimensions of teaching performance with potential bias being highest for evaluation questions relating to overall performance, and lowest for questions relating to formative assessment and deep learning outcomes.

Taking the opposing view, the proponents of SET would argue that posing the right questions can give a clear idea of teaching quality, and that there is much less distortion by interfering variables than might at first be supposed (Marsh, 1984; L'Hommedieu *et al.*, 1990). While the results of student surveys may not be quasi-objective, they can provide valuable information on student response to a class. After many years in education, university and college students are professional "teacher watchers" and, if asked questions to which they can respond, are capable of making fair and sound judgements about teaching (Miller, 1988). In addition, evidence suggests that there is a pattern of interrelations between student rating, self-rating by teachers, rating by

colleagues, administration and graduates, students' achievement and student approaches to learning (Prosser and Trigwell, 1990). Interestingly, there is some evidence that each teacher has a relatively unique feedback profile that generalises over different courses and over an extended period of time (Marsh and Bailey, 1993):

The validity of most existing surveys to evaluate university teaching is questionable insofar as the arguments justifying the selection and formulation of the items are vague (Westerman *et al.*, 2002).

The second theme, in the arguments against student feedback questionnaires, centres on issues of validity, accuracy and relevance. In general too little consideration is given to questionnaire design, and there is considerable danger that individual staff or course leaders will draft their own questionnaire without due reference to best practice. There is a considerable literature both on the evaluation of service quality and on the evaluation of educational quality (Rowley, 1996). The primary preoccupation of this literature is to develop attitude scales in which the questions asked are designed to capture data on variables that have been previously tested as independent. Unfortunately this work has not resulted in a recipe for the design of a student feedback form, and the process of designing and fully refining such a form is likely to be both time-consuming and costly.

Some might argue that there are grounds for being sufficiently sceptical about the value of student evaluation to suspend any activity in this area. We are taking the pragmatic position that we have to find some way of listening to students, that surveys and questionnaires are the only way to seek to surface opinions systematically across the student body, and that, whatever their limitations, these approaches are better than nothing. Nevertheless, an awareness of the limitations and questions surrounding the method should inform data interpretation and use, and act as a reminder of the need for triangulation with other sources of evidence.

Questions to be considered in evaluation design

There are several questions that need to be posed in the design of student feedback questionnaires. These include:

- What are the objectives of the evaluation process?
- Can standard questionnaires be developed to serve a range of purposes?
- What issues should be covered by the questions included in the questionnaire?
- How should data be collected, analysed and used?

We do not believe that there are standard answers to each of these questions.

Accordingly, this article does not propose a "how to" recipe, but each of the questions is discussed, in order that research and quality management groups can approach the process of questionnaire design from a more informed position.

What are the objectives of the evaluation process?

Marsh and Roche (1993) submit that the objectives for collecting student feedback embrace one or more of the following:

- diagnostic feedback to faculty that will be useful for the improvement of teaching;
- a measure of teaching effectiveness to be used in personnel and administrative decision making;
- information for students to use in the selection of courses and teachers; and
- an outcome or a process description for research on teaching.

There are four additional objectives that would seem to be equally if not more relevant in UK higher education:

- (1) To provide auditable evidence that opportunities for student comment have been available for students to express their opinions on their courses, and that the data collected inform action and quality enhancement.
- (2) To encourage students to reflect on their learning, and thereby to enhance their awareness of their own learning processes, and the factors that lead to positive or negative outcomes in such a way as to develop their learning competencies.
- (3) To provide students, as customers, with an opportunity to express their level of satisfaction with a learning experience.
- (4) To benchmark institutions and to generate other indicators of quality that may contribute to the marketplace reputation of the university.

It must be acknowledged that there are some inherent tensions between these different objectives. For example, a university collecting data that will be used to generate publicly available performance indicators will be keen to ensure positive feedback, and students will be aware of their allegiance to their university, and are likely to respond accordingly. Such an approach may not be consistent with the kind of reflective approach that poses suggestions for improvement in learning processes, and teaching performance, and encourages students to reflect on their own learning.

The type of student evaluation that is gathered from student questionnaires is usually summative evaluation, which is gathered towards the end of a module or course. Data from this source must be triangulated with data from other sources of formative and summative evaluation.

A subsidiary question relates to the relationship between different types of questionnaires in a university. At the very least, questionnaires may be conducted at module level and overall student satisfaction level. The CEQ instrument used in Australian universities seeks to generate national benchmarks of institutional performance. Student satisfaction questionnaires typically embrace the total student experience, including, for example, access to student support, student financial advice, library resources, information technology facilities, catering facilities, accommodation, and child care. They do, however, also ask students to evaluate their overall learning experience, and may ask for comment on tutor performance and contribution and other elements of teaching. They are typically designed to provide high-level management information that can be used both within and outside the university to profile performance, and identify key issues for management. Module and course feedback questionnaires function at a level that is close to individual students, modules and teachers and are more likely to be useful in informing local practice. Nevertheless, the exact relationship between these two types of questionnaire is a question to which a university needs to understand the answer. Students also need to understand why they are being asked for their opinion through two separate processes.

Can standard questionnaires be developed to serve a range of purposes?

There are some considerable benefits to be accrued from the adoption of a standard questionnaire that has been developed and fully tested in a range of environments. These include:

- Questionnaires will be designed by “experts”, tested for clarity with a number of student groups, and tested for validity and independence in respect of the variables underlying the questions.
- Comparability of data from one module with those of another and one tutor with another, at least in so far as the same data are being collected.
- Assurance that the design process is not influenced by the private agendas of individual tutors.
- Greater standardisation in quality management procedures, assuring consistency across an institution.

On the other hand, many would argue that a standard questionnaire is not consistent with the evaluation of specific learning outcomes and experiences on different modules. Specifically, there is a danger that traditional evaluation questionnaires reinforce traditional, lecturer-led modes of learning, promoting knowledge transfer, rather than encouraging critical thought, and student-centred learning, and that lecturers who use novel methods of pedagogy are at an automatic disadvantage (Kilitch and Dean, 1999). There is a body of research and practice relating to the evaluation of specific forms of learning, such as online learning, distance learning and work-based learning. This would suggest that these different forms of learning experience might need evaluation on different dimensions, and using different processes from those used for face-to-face group tuition and learning. But some would argue that the discrimination between learning experiences needs to go deeper than this, and that every module has its own learning outcomes, and therefore needs its own tailored evaluation instrument.

What issues should be covered by the questions included in the questionnaire?

Concern about whether it is possible to generate a standard questionnaire coupled with the variety of objectives for which questionnaires can be used suggests that the

pursuit of the holy grail of the ideal questionnaire is fated. Nevertheless, questionnaire designers generally find it useful to examine other people's questionnaires for guidance and inspiration. As an example, Table I summarises work on the dimensions of teaching effectiveness developed in three different studies. Common categories in student questionnaires relate to background conditions, teacher variables and student variables. On some courses, particularly those associated with vocational training for public sector careers, such as the health professions and teaching, the questionnaire design may be significantly influenced by funding and/or external quality assurance and auditing regimes.

Another key question is whether the questions should be designed to collect qualitative or quantitative data or a mixture of both. Typically qualitative questions ask students to reflect and provide evaluative comments, whereas quantitative questions seek a response in terms of tick boxes. Tick boxes do not provide the level of evaluative information that is optimal for quality enhancement. They should not be viewed as an invitation to rank and represent quality evaluation with numerical scores. Tick boxes offer an opportunity for analysis that allows

the identification of a specific aspect of the programme or module that might benefit from further examination. Tick box questions are useful when one or more of the following apply:

- numerical student evaluation scores are required for external agencies;
- student numbers are such that data analysis of text-based comments might be prohibitively time-consuming; and
- response rates will be enhanced through this mechanism. There is evidence to suggest that students prefer to tick boxes than to construct meaningful sentences about their learning!

There are a number of other aspects of question design that need to be decided:

- The balance between questions on tutors and teaching, wider support, facilities and resources and learning.
- The design of questions so that they do not assume any specific mode of delivery, and accommodate innovation, and approaches that promote independent learning as much as more traditional and tutor-led approaches.
- Questions must reflect those aspects of the students' learning experience on which they can be expected to be in a position to make informed comment.

Table I Comparing question topics

SET questionnaire ^a	Feldman categories ^b	SEQ factors ^c
Aims and objectives	Stimulation of interest	Instructor enthusiasm
Content knowledge and pedagogical skills	Enthusiasm	
Personal characteristics	Subject knowledge	Breadth of coverage
Concern for students	Intellectual expansiveness	
Commitment to the use of formative assessment	Preparation and organisation	Organisation/clarity
Focus on deep learning outcomes	Clarity and understandableness	
Curriculum design	Elocutionary skills	
Commitment to improvement	Sensitivity to class progress	
Relevance of assessment	Clarity of objectives	
Overall rating	Value of course materials	Assignments/readings
	Supplementary materials	
	Perceived outcome/impact	Learning/value
	Fairness, impartiality	Individual rapport
	Classroom management	
	Feedback to students	
	Class discussion	
	Intellectual challenge	Workload/difficulty
	Respect for students	
	Availability/helpfulness	
	Difficulty/workload	

Source: ^aWorthington (2002); ^bFeldman (1984); ^cMarsh and Roche (1993)

Anonymity also needs to be considered in questionnaire design. Should students be asked to identify themselves or not? The answer to this question must lie with relative value of anonymity versus being able to identify the source of the comments.

Anonymity protects the student, who may be concerned about the tutors' ability to take negative or even positive comments objectively, but there are occasions on which it is useful to be able to identify the source of comments in order to be able to take appropriate action. Students should always be assured that they will not be identified and that, in the analysis and use processes subsequent to collection, the data will be summarised and individuals will not be identified (Table I).

How should data be collected, analysed and used?

Any proposals for process should take into account the following considerations:

- The processes associated with the use of data provided by students should be transparent to those students, and data protection and privacy should be respected.
- Raw data and any analysis of the data should only be available to those individuals and boards and groups that are in a position to use them to contribute to quality enhancement.
- Data analysis for a large programme or module is a considerable task, and an approach that might involve sampling needs to be adopted that can be achieved within the resources available for the process.
- An audit mechanism, that allows course leaders or other managers to assure themselves that appropriate evaluation has been conducted, should be in place.

Data collection

There is considerable evidence to suggest that generating an adequate level of response to student feedback questionnaires requires careful attention to the mechanism for and the timing of the distribution.

In respect of the process of distribution, there are a number of options, including distribution:

- by mail;
- from and to a central collection point;

- by tutors, and collection in the same session; and
- by tutors and later return to central collection point.

The pros and cons of these various options could be debated at length. The key issues are, however, that tutor involvement in the distribution of questionnaires allows tutors to explain the purpose of the questionnaire, and clarify any instructions. In addition, collection in the same session as the questionnaires are distributed, while arguably compromising objectivity, putting pressure on students to respond and reducing time for reflection, in practice does ensure better return rates. Other options may be suitable when questionnaire completion is compulsory for, say, certification of course completion or, for example, in online environments.

In respect of timing, questionnaires should ideally be presented when the course is completed. Any questionnaire that asks for evaluation of assessment and, for example, achievement of learning outcomes cannot be technically completed until these processes are completed. Since assessment may not be completed, and grades and comments are unlikely to be returned to students prior to the final "session" in the course, it may be difficult to find the optimum time to undertake evaluation. Another hazard lies in the practical reality of identifying an opportunity when all of the students on a course are available to be surveyed.

Some tutors may be in a position to use forms to promote student reflection on their learning, and may therefore be able to devote a whole session to the completion of the form, and student group discussion on individual comments, leading to group agreement on the key points of the evaluation. Such an approach embeds consensus and analysis in data collection. A university might wish to take a view on whether to encourage or discourage this approach.

Data analysis

The key questions for data analysis are how? and who? The two key issues that must be considered in designing the approach to analysis are: resource availability and demand; and confidentiality and access.

Commencing with confidentiality and access. If the module tutor performs the analysis they have direct access to student comments, which may have both pros and

cons. They have the opportunity to suppress negative comments, and to write history to suit their own agenda. On the other hand, they may be in the best position to understand comments, and to relate them to the course experience. In addition, restricting direct access to student comments increases confidentiality. Auditing or moderating this process may enhance transparency.

Moving on to resource availability, data analysis of a large batch of questionnaires, which may include both qualitative and quantitative questions, is a major task. A university has to consider whether it can dedicate a central resource to undertaking this task. One significant advantage of tutor involvement with analysis is that the load is distributed, and the need for a central bureaucracy of standard forms, processes, and deadlines is avoided.

It is anticipated that the outcome of data analysis is likely to be a summary report that can be used in a variety of different contexts.

Data use

An evaluation report is of no value unless it is used. Optimally it should be shared with students, tutors, and those responsible for the management of the provision, through a range of appropriate channels. Questions arise as to which channels are appropriate and the best mechanisms for ensuring action on the basis of the key points of the report. Students may be given access to the report through a noticeboard, electronic bulletin board or special feedback sessions, and a student representative could, for example, participate in discussion of the report in a student consultative committee, which might be expected to formulate an action plan in response to the report. Programme and course leaders may also have responsibility for incorporating comments into annual monitoring processes, and consideration by programme and course boards.

Conclusion

This article explored a range of design issues in relation to the collection of student feedback on modules and courses. In a context in which the one-fits-all model of methodologies for student feedback is rejected, on the grounds that the

methodology must fit objectives, the article has discussed the following questions:

- What are the objectives of the evaluation process?
- Can standard questionnaires be developed to serve a range of purposes?
- What issues should be covered by the questions included in the questionnaire?
- How should data be collected, analysed and used?

In an environment in which it is becoming increasingly important to listen to and engage in dialogue with students and to understand and influence their motivation towards learning, effective student feedback mechanisms are increasingly important.

Questionnaires are one useful and widely-used approach. More work is needed to promote the sharing of practice in relation to:

- the design of questionnaires that are fit for the purpose;
- approaches that optimise response rates; and
- the triangulation processes associated with framing insights and action plans on the basis of data from several sources.

References

- Coles, C. (2002), "Variability of student ratings of accounting teaching: evidence from a Scottish business school", *International Journal of Management Education*, Vol. 2 No. 2, pp. 30-9.
- Feldman, K.A. (1984), "Class size and students' evaluation of college teachers and courses: a closer look", *Research into Higher Education*, Vol. 21, pp. 45-116.
- Kilitch, E. and Dean, A.V. (1999), "Student ratings of instruction in the USA: hidden assumptions and missing conceptions about 'good teaching'", *Studies in Higher Education*, Vol. 24, pp. 27-42.
- L'Hommedieu, R., Menges, R.J. and Brinko, K.T. (1990), "Methodological explanations for the model effects of feedback from student ratings", *Journal of Educational Psychology*, Vol. 82, pp. 232-41.
- Marsh, H.W. (1984), "Students' evaluations of university teaching: dimensionality, reliability, validity, potential biases, and utility", *Journal of Educational Psychology*, Vol. 76, pp. 707-54.
- Marsh, H.W. and Bailey, M. (1993), "Multidimensional students' evaluations of teaching effectiveness: a profile analysis", *Journal of Higher Education*, Vol. 64 No. 1, pp. 1-18.
- Marsh, H.W. and Roche, L. (1993), "The use of students' evaluations and an individually structured intervention to enhance university teaching

- effectiveness", *American Educational Research Journal*, Vol. 30, pp. 217-51.
- Miller, R.I. (1988), *Evaluating Faculty for Promotion and Tenure*, Jossey-Bass, San Francisco, CA.
- Prosser, M. and Trigwell, K. (1990), "Student evaluations of teaching and courses: student study strategies as a criterion of validity", *Higher Education*, Vol. 20, pp. 135-42.
- Rowley, J. (1996), "Measuring quality in higher education", *Quality in Higher Education*, Vol. 2 No. 3, pp. 237-55.
- Watchel, H.K. (1998), "Student evaluation of college teaching effectiveness: a brief review", *Assessment and Evaluation in Higher Education*, Vol. 23 No. 2, pp. 191-211.
- Westerman, R., Spies, K., Heise, E. and Wollburg-Claar, S. (2002), "Student evaluation of instruction and study

- conditions: theory-oriented development of questionnaires", *European Education*, Vol. 34 No. 10, pp. 44-69.
- Worthington, A.C. (2002), "The impact of student perceptions and characteristics on teaching evaluations: a case study in finance education", *Assessment and Evaluation in Higher Education*, Vol. 27 No. 1, pp. 49-64.

Further reading

- Nasser, F. and Fresko, B. (2002), "Faculty views of student evaluation of college teaching", *Assessment and Evaluation in Higher Education*, Vol. 27 No. 2, pp. 187-98.