

Evaluating Teaching

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If we would like to improve our teaching, it would be useful – necessary, even – to have an idea of how the teaching is going. Most of the (largely misguided) ideas of politicians and bureaucrats around this topic proceed with sublime indifference to the mountain of well-researched information available on evaluations of teaching.

Without data, I'm just another person with an opinion.

This brochure traces some of the data available from research into the theory and practice of evaluations of teaching. Many of the conclusions are counter-intuitive. For example, it must be a practice that is **voluntary** for the teacher concerned. Any attempt by principals or bureaucracies to make it compulsory is subvertible, leading to mechanistic compliance that is useless for all concerned. Secondly, the research also shows that the most reliable, most valid evaluations come from **students**. This is confronting initially, but hardly surprising when you think of it. Who sees the most teaching? (Note that what the research supports is the *class-average* of student evaluations, not individual student evaluations. By having many more measures, the reliability increases considerably.)

How to improve teaching?

Research into methods for improving teaching¹ covers areas like prizes for exemplary teachers, grants for projects, curriculum development initiatives, structural change, effectiveness of professional development centres, specific workshops and seminars, atomistic skill-based training, and feedback methods.

Anything that is shown to work has one or other, and often both, of just two characteristics:

- it offers professional learning targetted to the needs of teacher concerned
- it offers feedback on reliable, valid, and responsibly analyzed data on teaching and/or learning.

Getting a valid, reliable evaluation of teaching

The research literature² considers the validity and reliability of four broad sources for evaluation of teaching.

- Supervisor/administrator evaluation;
- Peer evaluation;
- Self-evaluation;
- Student evaluation.

While there are some variations in the findings of these studies (e.g. self evaluations are sometimes found to be more reliable or valid than peer evaluations, but this is often related to whether or not the peer evaluators receive training), the clear conclusion of the research is that supervisor/administrator evaluations are the *least* reliable and valid method, and the *class average* of student evaluations is the

¹ e.g. Centra, 1978; Aleomoni, 1980; Levinson and Menges, 1981; Ramsden, 1987; Jacobsen, 1989; Weimer, 1989b; Seldin, 1990; Webb, 1992; Brickhouse, 1993; Marincovich, 1998; Rowe and Rowe 1999; Rowe, Turner and Lane, 2001

² (Rosenshine, 1971; Follman and Merica, 1973; Blackburn and Clark, 1975; Centra, 1975; Ballard et al. 1976; Swanson & Sisson, 1979; Centra, 1980; Greenwood and Ramagli, 1980; Hort, 1988; Levinson-Rose and Menges, 1983; Marsh, 1987; Redekopp, 1989; Selmes, 1989; Dunkin, 1990; Albanese, Schuldt, Case and Brown, 1991; Gastel, 1991; Menges, 1991; Dunkin and Precians, 1993; Centra, 1994; Burns 1998; Santhanam, 2001)

most reliable, valid method available (within some constraints considered below). Menges (1991) found peer ratings to be politically respectable, industrially difficult and educationally ineffective. (☺)

Concerns with student evaluations of teaching.

Student evaluations of teaching are controversial³. Those considering them worry about six issues:

- Validity
- Reliability
- Generalizability
- Comprehensibility
- Utility
- Skulduggery.

Underneath these concerns lies a sense of unease at being judged by one's inferiors. A rationalization is sought for this unease in arguments which are disappointing in their statistical and methodological inadequacies, and which inadequately represent the results of previous research. So long as the evaluations sought are undertaken as outlined below, limiting them to those dimensions which students can validly evaluate and undertaking them by proper processes, each of the concerns is well-addressed in the literature. As Remmers (1950) commented very near to the start of this debate,

“Teachers at all levels of the educational ladder have no real choice as to whether they will be judged by those whom they teach... The only real choice any teacher has is whether (s)he wants to know what these judgments are and whether (s)he wants to use this knowledge in his(her) teaching procedures.”

Dimensions of teaching that students can evaluate

Teaching is a multi-dimensional activity. There are many aspects of it that the literature supports as being able to be evaluated validly by students and being represented by other paradigms of teaching quality⁴. These are named differently in different studies, but are best summarized in the *Student Evaluation of Educational Quality (SEEQ)* instrument of Marsh (1987). It was constructed, validated and analysed over 24,158 different class groups to show nine different dimensions:

- 1 Learning/Value
- 2 Group Interaction
- 3 Individual Rapport
- 4 Examinations:
- 5 Workload/difficulty
- 6 Organization / Clarity
- 7 Instructor Enthusiasm
- 8 Breadth of Coverage
- 9 Assignments/Homework.

³ Remmers, 1950; Roden and Roden, 1972; Blackburn, O'Connell and Pellino, 1980; Marsh, 1980a; Naftulin, Ware, and Donnelly, 1973; Kaplan, 1974; Frey, 1979a, 1979b; Leventhal 1979, 1980; Ware and Williams, 1980; Bean and Bradley, 1986; Renner et al, 1986; Cruse, 1987; Marsh, 1987; Franklin and Theall, 1990; Thompson Deer, Fitzgerald, Kensell, Low, and Porter, 1990; Husbands and Fosh, 1993; Pike, 1993; Watkins, 1994; Hutchinson, 1995

⁴ Adams, 1979; Frey, 1979; Adams and Martray, 1980; Marsh, 1980a; Cohen, 1981; Marsh, 1984; Feldman, 1987; Marsh, 1987, Donnelly and Wooliscroft, 1989; Marsh 1991b; Smith and Cranton, 1992; Marsh, 1993; Marsh and Bailey, 1993

Principles and procedures for effective evaluations of teaching

Any process for improving our teaching has to be considered as an adult learning process, and so any process of use of student evaluations of teaching will share characteristics of any effective adult learning process. The research⁵ supports the following principles. The first six of these principles are common to most of the adult learning literature.

- 1 participation is voluntary;
- 2 there is mutual respect between participants in the process;
- 3 facilitation is collaborative;
- 4 facilitation is based on praxis;
- 5 facilitation aims at engendering critical reflection;
- 6 the aim is the nurturing of self-directed, empowered adults;
- 7 the evaluation is undertaken by the class while being supervised by a person other than the teacher;
- 8 feedback to the teacher is anonymous;
- 9 feedback is supported by a peer-consultant to assist in interpretation;
- 10 provision of normative and other comparative data greatly assists interpretation.

Best practice for undertaking student evaluations of teaching, built on the research, includes the following:

- 1 A survey instrument is used which adequately reflects the researched requirements for reliable, valid evaluations.
- 2 Students are not advised in advance of the evaluation, to avoid collusion in answers.
- 3 The teacher invites a peer to be his/her "peer-consultant" in the process of gaining the evaluations.
- 4 A form of training is available to those who are to act as peer-consultants.
- 5 On the day on which the evaluation is to be conducted, the peer arrives at the class some time after teaching has begun.
- 6 The teacher introduces the peer to the class with words such as: *"Today I would like to ask for your help in getting some information on how teaching and learning have been going on in our class. I value your opinion, and have asked Ms/Mr ...to come and give you a survey. You don't have to write your name on the survey, but I hope you will answer each question honestly. When you have finished, Ms/Mr ... will collect the surveys. I will not see your individual answers, but Ms/Mr ... will give me a summary. Thank you for your help."*
- 7 The teacher then leaves the class, and the peer conducts the survey then dismisses the class.
- 8 The teacher may choose to complete the survey as a self-evaluation for later comparison with class averages.
- 9 Evaluations are scanned and a report on the means for each of the dimensions is prepared.
- 10 The peer discusses the summary results of the evaluations with the teacher in the light of (a) a self-evaluation, if available; and (b) normative data, if available. The teacher may in the light of this discussion set professional development or teaching targets with a view to later evaluations.

An effective student evaluation questionnaire

The *SEEQ* questionnaire, a version of which is reproduced overleaf, is the most strongly supported of the evaluation instruments in the literature. Originally targeted at American college students, the modified version reproduced here is for the use of Australian secondary school students.

⁵ Cohen, 1980; Aleamoni and Stevens, 1983; Slawski, 1984; Moses, 1986b; Menges and Brinko, 1986; Marsh, 1987; Murray, 1987; Redekopp, 1989; Annis, 1989; Seldin, 1989; Galbraith, 1990; Baxter, 1991; Broder and Dorfmann, 1994

Appendix 1: The questionnaire

Please rate each of the following statements according to how strongly you agree / disagree with them, as applied to this subject or this teacher. Leave an item blank only if it clearly does not apply in this subject or with this teacher.

Q.		Strongly Strongly Disagree	Disagree	Neutral	Agree	Agree
1	The teacher was available to help students when they asked for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	The teacher's explanations were clear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I found this subject challenging and stimulating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	The teacher showed us different ways of doing/understanding this subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Students were encouraged to participate in class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	The teacher had a genuine interest in individual students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	The teacher made individual students feel welcome in seeking help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	Compared to other subjects I have taken at this school, I learned more in this subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	The textbook and/or duplicated handouts were valuable in learning this subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	The teacher was dynamic and energetic in teaching the class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	I am more interested in this subject as a result of taking this course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	I understand this subject better at the end of the course compared to the beginning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	The teacher has a sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	The teacher was friendly towards individual students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	The teacher showed us how this subject is useful to us	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	The homework and out-of-class assignments helped to learn and appreciate this subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	The teacher showed how this subject fitted with other things we have learned.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	The teacher explained clearly how the parts of the course fit together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	The teacher was enthusiastic about this subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	The teacher's style of teaching held my interest during class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21	Students were encouraged to ask questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22	The teacher taught this subject in a way that built well on what we had learned previously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23	I have learned things which I consider valuable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24	The textbook/notes for the subject were useful in learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25	Students were invited to share knowledge and help each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26	The teacher gave clear and helpful answers to questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27	The teacher explained clearly what was required to be done in preparing for the main assessment tasks &	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28	The main assessment tasks and exams were fair and appropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29	The teacher gave us good feedback on exams, tests and assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30	The teacher helped us see where this subject was going as we studied it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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