THE COURSE EXPERIENCE QUESTIONNAIRE

A Guide to Use, Structure, and Interpretation

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1. INTRODUCTION

The Course Experience Questionnaire (CEQ) is an instrument designed to gather information regarding students' and graduates' perceptions of their educational experience (Ainley & Long, 1995). It is based on research which found that when academic courses were perceived to possess certain characteristics, their students were more likely to learn effectively (Entwistle & Ramsden, 1983; Entwistle & Tait, 1990; Ramsden, 1991a, 1991b; Ramsden & Entwistle, 1981). The teaching characteristics identified as being associated with learning effectiveness were good teaching (e.g., enthusiasm, providing feedback, being understanding, and clarity of explanations), the establishment of clear goals and standards, the development of generic skills (e.g., problem solving skills, oral and written communication skills, analytical skills, and the ability to work as a team member), the appropriateness of the workload and the assessment, and an emphasis on student independence (Ramsden, 1991b). The CEQ was created to measure differences between courses and over time in these teaching characteristics or aspects, and thereby infer differences in student learning.

To assess these teaching characteristics, the CEQ was developed as a pen-and-pencil instrument requiring responses on Likert-type scale to approximately four to six statements (the items), for each of the aspects of teaching (the scales). The development and refinement of the CEQ occurred over a period of about 10 years, and involved adding and removing items and scales. As a result several slightly different versions of the CEQ have been used, and are still in use. There are three versions of the CEQ that are most often used or refereed to, the original 30 item version, a 38 item version, and a 25 item version that is used by the Graduate Careers Council of Australia (GCCA) as a part of their annual Graduate Destination Survey (GDS). In addition to adjustments to the items which make up the scales, there is an overall satisfaction item that is sometimes included, and sometimes omitted, creating yet more variations of the CEQ.

Throughout the development and refinement of the CEQ analyses have been performed to determine the reliability, validity, and soundness of the scale structure of the different versions (Ainley & Long, 1995; Ramsden 1991a; 199b; Richardson, 1984; Wilson et al., 1996). The literature pertaining to these analyses indicates that the reliability and validity of the structure and scales of the CEQ has remained solid throughout these variations. Hence, the CEQ can be said to be a valid and reliable instrument for measuring the aspects of teaching that are related to effective learning: good teaching, clear goals and standards, generic skills, appropriate assessment, appropriate workload, and an emphasis on student independence.
The purpose of this Guide is to provide an overview of the most important aspects of the CEQ: the appropriate and inappropriate uses, the scale structure, the reliability, the validity, how to analyse the data, and how to interpret the results. In addition, the Guide provides ready-to-use copies of the three most often used versions of the CEQ, a bibliography with references to related information, and complete copies of documents that were produced by the Australian Vice-Chancellors' Committee and the Graduate Careers Council of Australia to provide guidelines and establish a code of practice for using the CEQ.
2. USE OF THE CEQ

2.1 Benefits Of Using The CEQ At A National Level
As a part of the Graduate Careers Council of Australia’s (GCCA) Graduate Destination Survey (GDS) the CEQ is distributed to all Australian university graduates soon after graduation. Although GDS data has been collected for 20 years, the inclusion of the CEQ commenced only in 1992. The inclusion of the CEQ in the GDS results in a standard national instrument for measuring graduates’ perceptions of teaching quality and, therefore, provides opportunities for the improvement of teaching quality across Australia. These opportunities include a) comparative data to enable data-based dialogue between institutions regarding best practice in teaching; b) data based estimates of institutions’ relative performance within fields of study; c) the identification of national trends for field of study investigations and reviews by government and accreditation boards and committees; and d) the accumulation of time series data and performance monitoring over time at various levels of academic organisation - degree program, institution, field of study, and national system. Researchers in the field have stated that the potential for long term improvement and system-wide learning lies in using these opportunities in a co-operative strategy of inter-institutional benchmarking for best practice (Wilson et al., 1996).

In addition to managerial value, this national system for assessing teaching quality also provides data for potential students to make decisions about the institution which is best for them. The CEQ national data are available to the public in The Good Universities Guide to Australian Universities (Ashenden & Milligan, 1995), an annual independent evaluative publication which acts as a guide for prospective students to the quality of Australian universities’ courses and campuses.

2.2 Conditions For Effective Use Of The CEQ
Only certain kinds of comparisons can be made using CEQ data, and indulging in other comparisons will result in invalid and unreliable conclusions being drawn, and consequently incorrect recommendations being made. In brief, the only legitimate comparisons that can be made are:

- comparing across institutions within a particular field of study;
- comparing the same course or field of study over time.

The types of comparisons that should not be made include:

- comparisons across fields of study within a given institution
- comparisons between universities at the institutional level
2.3 The AVCC and GCCA Guidelines

Many opportunities exist for CEQ results to be misused by universities, especially through university marketing and media releases. The potential for this to occur has led to the Standing Committee on Statistics of the Australian Vice-Chancellors' Committee (AVCC) to draft a Code of Practice for the use and public disclosure of CEQ data (AVCC, 1995). The Code of Practice is provided in its entirety as Appendix B of this Guide, and an excerpts is provided below. The Code of Practice provides guidelines that enable the full advantage of the national CEQ data collection process to be realised. To ensure the benefits, institutions need to exercise caution in the use of the instrument, in the types of comparisons made, in the meanings attached to scores, and in the decision making processes based on CEQ data (Wilson et al., 1996).

**Policy Statement**

One of the primary functions of the Graduate Careers Council of Australia's Graduate Destination Survey (GDS) and the Course Experience Questionnaire (CEQ) is to provide feedback to institutions, which, in conjunction with other indicators, may assist planning and the development of quality improvement initiatives. The GDS is also important in providing information to university careers services for current and prospective students, and to others in the education field (including the Department of Employment, Education and Training).

The Australian Vice-Chancellors' Committee (AVCC) supports the public disclosure of institutional data derived from the GDS and the CEQ under the conditions and guidelines specified in this Code of Practice.

**General Conditions**

- The use of the GDS and CEQ data in public statements, advertisements or promotional activities should be only for the purpose of assisting the public to develop informed judgements, opinions and choices.

- It follows that the data should not be used in false, deceptive or misleading ways, either because of what is stated, conveyed or suggested, or because of what is omitted.

- Institutions are at liberty to make whatever declarations they feel are appropriate about their own statistical data, provided disclosure accords with the principles above and the guidelines on the interpretation of survey data contained in this Code of Practice.

- Institutions must not utilise GDS or CEQ data to knowingly undermine the reputation and standing of other institutions.

- The use of, or referral to other institutions' data beyond what is in the public domain requires the prior consent of the other institution(s), and prior consultation to ensure accuracy.

- Public comment on the GDS and CEQ data must be supported by appropriate interpretation of the data, with any necessary qualification (e.g., cell size, response rate, special local issues) to be spelled out explicitly.
In addition to the AVCC's Code of Practice, the AVCC together with the GCCA have developed the *Standard Recommended Methodology for the Graduate Careers Council of Australia's Graduate Destination Survey and Course Experience Questionnaire*. Although this document focuses on the GCCA's use of the CEQ, it does provide useful information about the methodology and logistics of collecting the data, processing the data, and releasing the results. This document is attached as Appendix C.
3. CEQ STRUCTURE, RELIABILITY, AND VALIDITY

The CEQ has a total of 38 items that can be used to form up to six scales. It is not always necessary to use all six scales, and several different versions of the CEQ have been created by omitting scales or items. The following section of this guide describes the six scales, details the scale structure of the three most popular versions, and discusses the reliability and validity of the CEQ.

Unless otherwise indicated, the data and results relating to the reliability and validity of the CEQ that are presented here were analysed specifically for this guide, and do not appear in any other publication. The sample used for the analyses included 5420 undergraduate and postgraduate coursework students from Griffith University in 1995. The data were collected as a part of Griffith’s annual Student Opinion Survey. The analyses were performed using the Statistical Package for the Social Sciences (SPSS), with heavy reliance on Cronbach’s Alpha. These analyses were run to ensure that the comparisons between the three versions of the CEQ were based on the same data, and that the items included in each scale were consistent with the forms of the CEQ being presented in this guide. Further details regarding the sample and population are available upon request. If the reader wishes to compare these results with other analyses the following references are recommended: Ainley & Long, 1994, 1995; Ramsden, 1991a, 1991b; Ramsden & Dodds, 1993; Richardson, 1994; Wilson et al., 1996; Wilson, Lizzio, & Ramsden, in press.

3.1 The CEQ Scales

Table 3.1 indicates that across three versions of the CEQ the alpha coefficients of the scales are constant (the highest difference is 0.04 on the Appropriate Workload scale). These results indicate that the CEQ is a robust instrument that can be manipulated - within reason - and remain a reliable measure of teaching and learning.

<table>
<thead>
<tr>
<th>The Scales</th>
<th>Form 25a</th>
<th>Form 38</th>
<th>Form 30b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Teaching</td>
<td>0.86</td>
<td>0.84</td>
<td>0.84</td>
</tr>
<tr>
<td>Clear Goals and Standards</td>
<td>0.78</td>
<td>0.81</td>
<td>0.81</td>
</tr>
<tr>
<td>Appropriate Assessment</td>
<td>0.71</td>
<td>0.73</td>
<td>0.73</td>
</tr>
<tr>
<td>Appropriate Workload</td>
<td>0.72</td>
<td>0.76</td>
<td>0.76</td>
</tr>
<tr>
<td>Emphasis on Student Independence</td>
<td>-</td>
<td>0.64</td>
<td>0.63</td>
</tr>
<tr>
<td>Generic Skills Scale</td>
<td>0.76</td>
<td>0.79</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:  
| a These results are taken from Ainley and Long (1995).  
| b These results are taken from Ramsden (1991a).
The six possible scales of the CEQ are the Good Teaching Scale, the Clear Goals and Standards Scale, the Appropriate Assessment Scale, the Appropriate Workload Scale, the Emphasis on Student Independence Scale, and the Generic Skills Scale. In addition to these scales, there is an Overall Satisfaction Item that can be included as the last item of the questionnaire which reads *Overall I am satisfied with the quality of this course*. The relationships between the scales and the overall satisfaction item are shown in Table 3.2. The data are the correlation coefficients of the scales of Form 38 of the CEQ. Table 3.2 indicates that there are moderately high correlations between the CEQ scales which suggests that each scale is measuring different, but related, aspects of the educational experience.

Table 3.2 Correlations between CEQ scales and the overall satisfaction item.

<table>
<thead>
<tr>
<th></th>
<th>OS</th>
<th>GS</th>
<th>ESI</th>
<th>AA</th>
<th>AW</th>
<th>CGS</th>
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<tr>
<td>Good Teaching</td>
<td>.58</td>
<td>.55</td>
<td>.66</td>
<td>.39</td>
<td>.46</td>
<td>.64</td>
</tr>
<tr>
<td>Clear Goals &amp; Standards</td>
<td>.51</td>
<td>.48</td>
<td>.52</td>
<td>.26</td>
<td>.46</td>
<td></td>
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<td>.36</td>
<td>.34</td>
<td>.44</td>
<td>.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Assessment</td>
<td>.22</td>
<td>.24</td>
<td>.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emphasis on Student Independence</td>
<td>.46</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Generic Skills</td>
<td>.46</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Notes: OS = Overall Satisfaction Item; GS = Generic Skills Scale; ESI = Emphasis on Student Independence Scale; AA = Appropriate Assessment Scale; AW = Appropriate Workload Scale; CGS = Clear Goals and Standards Scale.

3.1.1 The Good Teaching Scale
The Good Teaching Scale assesses behaviours associated with good teaching practices. These good teaching practices include motivating students, providing feedback and commenting on students’ work, understanding students’ difficulties, providing clear explanations, and being interested in the content and the students.

3.1.2 The Clear Goals and Standards Scale
The Clear Goals and Standards Scale determines if students/graduates believe that their teachers establish(ed) clear goals and standards. Aspects of this include knowing the standard of work expected, having a clear idea of what is expected, finding it easy to discover what is expected, and the clarity of the aims and objectives. Although these practices are a part of good teaching, it is quite possible for lecturers/tutors to practice all the activities assessed by the Good Teaching Scale, without establishing clear goals and standards (Ainley & Long, 1995).
3.1.3 The Appropriate Workload Scale
The Appropriate Workload Scale is based on the assumption that overloading students with work may have a negative impact on effective learning. Although a heavy workload has merit in terms of academic rigour, an inappropriately heavy workload forces students to abandon attempts at deep understanding, and resort to rote learning for exams and reiterating the lecturers'/tutors' opinion for assignment. The items of the scale assess how heavy the workload is, if the syllabus tries to cover too many topics, and if there is enough time to understand the work.

3.1.4 The Appropriate Assessment Scale
The Appropriate Assessment Scale determines whether higher-order thinking is/was assessed in the course. An over-emphasis on memory and shallow learning is not appropriate for higher education, and indicates that generic skills and deep learning is/was not being assessed in the course (Ainley & Long, 1995).

3.1.5 The Emphasis on Student Independence Scale
The Emphasis on Student Independence Scale focuses on whether the course encourages students to be independent and provides a range of choices for the students. The emphasis on independence includes opportunities to choose the areas to be studied, encouraging the development of students' academic interests, choice of learning/teaching styles, and choice of assessment styles.

3.1.6 The Generic Skills Scale
The Generic Skills scale is designed to measure the extent to which students and graduates perceive their course develops a number of generic skills and abilities. These skills and abilities are problem solving, analytic skills, team work, confidence in tackling unfamiliar problems, the ability to plan work, and written communication skills (Wilson et al., 1996).