

TESTA Tools

Transforming the Experience of Students Through Assessment



The Assessment Experience Questionnaire

The Assessment Experience Questionnaire (AEQ) is a short survey that asks students about assessment and feedback on their programme. This document contains information about why the AEQ can be useful, where it came from, how to administer it and some suggestions about how to explore the results.

Why is it useful?

The AEQ provides high-level data about students' perceptions that can prompt and inform discussion and reflection by teaching staff. By providing detail specifically about students' perceptions of assessment and feedback, it can help to illuminate results from the National Student Survey. While the survey does not cover every aspect of assessment and feedback, it covers issues that are highlighted by research, and central to academics' teaching practices (see below). Quantitative survey data are fairly broad-brush and can only provide part of the picture, but they can be very useful, particularly when used alongside other sources of data. In particular, the AEQ works well when used in conjunction with the other TESTA Tools – the Assessment and Feedback Audit, and focus groups.

Where did it come from?

The AEQ was developed over 15 years ago, based on a wide range of research into effective assessment and feedback. In particular, it was designed to assess the extent to which whole programmes exhibit a set of conditions under which assessment supports learning, identified from the literature, such as assessments encouraging appropriate amounts of study time, and feedback being acted on by students.

What does it look like?

The questionnaire includes 28 questions, which take the form of statements with a five-point agree-disagree response scale. In addition to an overall satisfaction question, 27 of the questions are grouped into the following nine areas:

- **Appropriate Assessment:** Whether assessments focus on rote learning rather than understanding
 - E.g. 'To do well on this course all you really need is a good memory'
- **Clear Goals and Standards:** Whether it is clear to students what is expected of them
 - E.g. 'The staff make it clear from the start what they expect from students'

- **Coverage of Syllabus:** Whether the assessments allow students to pick and choose what to study
 - E.g. 'It is possible to be quite strategic about which topics you can afford not to study'
- **Quantity of Effort:** The amount of time that students are required to invest
 - E.g. 'The way the assessment works you have to put the hours in regularly every week'
- **Deep Approach:** The extent to which students engage in deeper types of studying
 - E.g. 'I generally put a lot of effort into trying to understand things which initially seem difficult'
- **Surface Approach:** The extent to which students in more superficial types of studying
 - E.g. Often I find I have to study things without having a chance to really understand them'
- **Quantity and Quality of Feedback**
 - E.g. 'I receive hardly any feedback on my work'
- **Use of Feedback:** Whether students use the feedback they receive
 - E.g. 'The feedback I receive prompts me to go back over material covered in the course'
- **Learning from the Examination:** How useful students find exams for their learning
 - E.g. 'I understand things better as a result of the exams'

In addition to these 28 questions, the four NSS questions on assessment and feedback have also been added to the AEQ.

What is the staff-facing version of the AEQ?

In addition to the standard version of the questionnaire which asks students to directly report on their experiences, there is also a staff-facing version of the AEQ, the AEQ-S. This asks the staff who teach on the programme to reflect on how they think their students experience assessment and feedback. The AEQ-S contains mirrored versions of the AEQ questions. Examples are shown below.

AEQ	AEQ-S
'The way the assessment works you have to put the hours in regularly every week'	'The way the assessment works students have to put the hours in regularly every week'
'I receive hardly any feedback on my work'	'Students receive hardly any feedback on their work'
'Overall I am satisfied with the quality of this course'	'Overall students are satisfied with the quality of this course'

How do we collect responses to the AEQ?

Asking students to complete the AEQ on paper in lectures is the best way of maximising the number of responses. Programmes normally feature compulsory classes (at least in earlier years) that will allow you to reach most of the students in the year. The survey can also be run online (e.g. using Qualtrics). This does not require lecturers to give up class time, and removes the need for data from paper surveys to be entered on a spreadsheet manually. However it is likely to lead to a lower number of responses. Hybrid approaches are possible, where students in class are directed to an online version of the questionnaire on their phones or laptops.

Questionnaire responses can be collected either from students in all years, or just from students in their final year. Collecting responses from students in all years provides a picture of how experiences change over the course of the programme, but requires additional time to collect and analyse the data. If the questionnaire is being run in the first semester, it is normally unnecessary to collect responses from first year students as they have encountered little or no assessment.

Responses to the staff version of the AEQ can either be collected on paper (e.g. in a department/school meeting) or online.

The AEQ and AEQ-S are available to download in printing format and as Qualtrics templates from <https://www.strath.ac.uk/sees/educationenhancement/innovationandgoodpractice/TESTAtools/>

How do we handle the data?

If the AEQ is completed on paper, responses will need to be manually entered into an Excel spreadsheet. To save time, codes can be used (e.g. 1 for 'Strongly agree', 2 for 'Agree', etc.) but it is important to keep a record of those codes. If the AEQ is completed online, responses can be outputted from the survey platform used (e.g. Qualtrics) in the form of an Excel spreadsheet.

As long as the questionnaire does not ask for any identifying information from the students or staff, the ethical issues involved in this kind of data are limited. Where respondents provide any identifying information in comments boxes on the questionnaire, that should be anonymised before the data is passed on anywhere. If students name individual members of staff in their comments, consideration should be given whether to remove those names.

Most of the ways of exploring the data described below can be done directly in Excel. However, there are benefits to using specialist statistical software, such as SPSS (which is freely available under license from the University). To transfer the data into SPSS, simply launch SPSS, select the option to open a data file, and choose the Excel file containing the survey results. SPSS will import the data, using the Excel column headings as the names for the variables (e.g. question number). SPSS is a specialist piece of statistical software, so those unfamiliar with it will need to consult online guides or a textbook.¹

Whether exploring the results in Excel or SPSS, it is important to make sure that the data are appropriately labelled. For some of the analyses described below, mean scores (averages) are calculated for groups of questions, e.g. the three questions in the Clear Goals and Standards group. When assigning numbers to the response options ('strongly agree' etc) it is important to take into account the fact that some questions are negatively worded (e.g. 'Whatever feedback I receive on my work comes too late to be useful'). To calculate a mean score for a group of questions, the scoring for each questions needs to point in the same direction. To do that, scores need to reflect the level of positivity, rather than the simple level of agreement. So if the scoring for the positively-worded questions (e.g. 'It is always easy to know the standard of work expected') runs from 'Strongly disagree'=1 to 'Strongly agree'=5, then the scoring for the negatively-worded questions should run in the opposite direction.

How can we analyse the results?

¹ A handy reference book for those new to SPSS is: Pallant, J. (2016) *SPSS: A Survival Manual* 6th ed. (Berkshire, OU Press).

There are lots of different ways of analysing survey results, however common ways of analysing the data are listed below.

There are two basic ways of exploring AEQ results. Results for *individual questions* can be analysed, for example comparing the responses of students in different years to the statement 'I receive hardly any feedback on my work'. This is often done by using the proportion of students who have agreed with the statement (i.e. selected either 'agree' or 'strongly agree'). However you can look at the data in other ways, such as calculating an average score (i.e. treating 'strongly disagree' as 1, and 'strongly agree' as 5).

Alternatively, results for the *question groups* can be analysed. Calculating a mean score for the questions in a group (e.g. the three questions in Quantity and Quality of Feedback) allows you to explore broader aspects of students' experiences.

Benchmarking your results

Comparing the responses from your students with responses from other students is a good way of exploring what your results might mean. Data from other programmes (at Strathclyde and elsewhere) have been collected, and the average figures are available in a separate file.² The file includes averages for the proportion of students who agreed with each of the 28 AEQ questions, and the mean averages for each of the sets of questions. In general, students' responses to survey questions about their educational experiences depend a lot on the subject they are studying (as different subjects often teach in quite different ways) and so it is important to compare within your subject as far as possible. The benchmarking data is available for four different subject groups: Arts and Humanities; Social Sciences; Health Sciences; STEM.

By comparing your AEQ results with the averages for your subject group, you can get an initial sense of whether your students are more or less positive than might be expected.

Comparing between students in different years

If you have collected responses from students in different years, comparing them may provide evidence about how students' perspectives change as they move through the programme, for example improved perceptions of feedback in later years.

If the analysis is being done in SPSS, it is possible to include statistical significance testing. Statistical significance testing is a way of finding out whether the difference between scores (for example between the scores for students in different years) is likely to be due to chance or not; if the difference between scores is small, it is likely to be due to 'random variation' rather than a genuine difference in students' perceptions. This kind of testing is helpful as it can highlight areas of particular interest.

Comparing between staff and students

If you have used the AEQ-S as well as the AEQ, you will be able to compare the perceptions of staff and students. This can be a very useful way of prompting discussion with staff, as it highlights areas where staff and students have different (and similar) perspectives of assessment and feedback on the programme.

Staff and student perceptions can be compared using results for either individual questions or question groups. And as above, it is helpful, if using SPSS, to test for statistical significance.

² Please contact educationenhancement-quality@strath.ac.uk for access to the benchmarking figures.

Exploring correlations

Other than comparing responses to the questionnaire in one way or another, another way of exploring the data is to look at how the results for questions and question groups relate to each other. This can provide useful evidence about how different aspects of assessment and feedback are related for students.

Correlations can be explored between individual questions, or between question groups to get a broader picture. In both cases, it can be particularly interesting to see which questions or groups correlate most strongly with students' overall satisfaction.

How can we report the findings?

As a general rule, it is often helpful to keep reporting simple and concise, while making more detail available to those who want it (e.g. in a separate document, on request, or in an Excel spreadsheet).

If possible, it is a good idea to draw out key messages from the analysis. If the audience can be given some sense of what the results might mean it can help them engage with the more detailed reporting.

Any findings from the AEQ survey are only going to be one part of the picture. They will be much more insightful when combined with other data from other sources (such as the Assessment and Feedback Audit, focus groups, etc). Other data can corroborate (or contradict) evidence of students' perceptions from the AEQ, it can provide extra detail and nuance about students' perceptions, and it can also provide information about actual practices around assessment and feedback.

TESTA Tools

TESTA ('Transforming the Experience of Students Through Assessment') is way of helping teaching staff to work together to improve assessment and feedback across whole programmes. By providing evidence about how well assessment and feedback supports students' learning TESTA can help staff to improve the coherence and coordination of programmes. A centrally-resourced version of TESTA is provided to Schools/Departments by in the year prior to their Internal Review. Alternatively, this guidance is provided so Schools/Departments (or individual programme teams) can make use themselves of the tools that make up the TESTA method: the Assessment Experience Questionnaire, the Audit, and the Focus Groups.

For more information about the TESTA Tools, please visit

<https://www.strath.ac.uk/sees/educationenhancement/innovationandgoodpractice/TESTAtools/>

If you have any questions about the TESTA Tools, please contact

educationenhancement-quality@strath.ac.uk

Further reading

These papers describe the initial development of the AEQ

- Gibbs, G. and Simpson, C. (2003) 'Measuring the response of students to assessment: The Assessment Experience Questionnaire', presented at *11th Improving Student Learning Symposium*. Available at <https://docplayer.net/12543680-Measuring-the-response-of-students-to-assessment-the-assessment-experience-questionnaire.html>
- Gibbs, G., Simpson, C. and Macdonald, R. (2003) 'Improving student learning through changing assessment: A conceptual and practical framework', presented at *European Association for Research into Learning and Instruction Conference*, Padova, Italy. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.573.1308&rep=rep1&type=pdf>

A number of papers have been published drawing on results from the AEQ

- Batten, J., Jessop, T. and Birch, P. (2018) 'Doing what it says on the tin? A psychometric evaluation of the Assessment Experience Questionnaire', *Assessment and Evaluation in Higher Education* 44(2): 309-210
- Jessop, T., El Hakim, Y. and Gibbs, G. (2014) 'The whole is greater than the sum of its parts: A large-scale study of students' learning in response to different programme assessment patterns', *Assessment & Evaluation in Higher Education* 39(1): 73-88
- Jessop, T. and Maleckar, B. (2016) 'The influence of disciplinary assessment patterns on student learning: a comparative study', *Studies in Higher Education* 41(4): 696-711
- Maggs, L. (2014) 'A case study of staff and student satisfaction with assessment feedback at a small specialised higher education institution', *Journal of Further and Higher Education* 38(1): 1-18
- Segers, M., Gijbels, D. and Thurlings, M. (2008) 'The relationship between students' perceptions of portfolio assessment practice and their approaches to learning', *Educational Studies* 24(1): 35-44
- Turner, G. and Gibbs, G. (2010) 'Are assessment environments gendered? An analysis of the learning responses of male and female students to different assessment environments', *Assessment and Evaluation in Higher Education* 35(6): 687-698

Appendix: AEQ items

Quantity of effort

- 7. The way the assessment works you have to put the hours in regularly every week
- 16. On this course it is necessary to work consistently hard to meet the assessment requirements

Coverage of syllabus

- 5. You have to study the entire syllabus to do well in the assessment
- 6. The assessment system makes it possible to be quite selective about what parts of courses you study
- 13. It is possible to be quite strategic about which topics you can afford not to study
- 20. The way the assessment works on this course you have to study every topic

Quantity and quality of feedback

- 3. I receive hardly any feedback on my work
- 18. I don't understand some of the feedback on my work
- 19. Whatever feedback I receive on my work comes too late to be useful

Use of feedback

- 1. I use the feedback I receive to go back over what I have done in my work
- 2. The feedback I receive prompts me to go back over material covered in the course
- 9. I pay careful attention to feedback on my work and try to understand what it is saying

Appropriate assessment

- 12. The staff seem more interested in testing what I have memorised than what I understand
- 17. Too often the staff ask me questions just about facts
- 22. To do well on this course all you really need is a good memory

Clear goals and standards

- 8. It is always easy to know the standard of work expected
- 11. The staff make it clear from the start what they expect from students
- 15. It is often hard to discover what is expected of me in this course

Surface approach

- 23. When I'm reading I try to memorise important facts which may come in useful later
- 27. I find I have to concentrate on memorising a good deal of what we have to learn
- 28. Often I find I have to study things without having a chance to really understand them

Deep approach

- 24. I usually set out to understand thoroughly the meaning of what I am asked to read
- 25. I generally put a lot of effort into trying to understand things which initially seem difficult
- 26. I often find myself questioning things that I hear in classes or read in books

Learning from the examination

- 29. Doing exams brings things together for me
- 30. I learn new things while preparing for the exams
- 31. I understand things better as a result of the exams

Satisfaction

- 32. Overall I am satisfied with the quality of this course

National Student Survey assessment and feedback items

- 4. The criteria used in marking have been clear in advance
- 10. Marking and assessment has been fair
- 14. Feedback on my work has been timely
- 21. I have received helpful comments on my work