Publication of theme measures for the 2023 National Student Survey

1. This note explains the initial analysis we have carried out to understand the level of confidence we can have in the theme measures in the 2023 National Student Survey (NSS).

Background

2. The NSS has historically been split into several groups of questions to summarise the data. These groups, previously known as scales, were based on sets of questions around a similar theme. For example, the first four questions in the survey were grouped as 'The teaching on my course'.

3. The theme measures were previously published alongside the individual questions in the OfS NSS publication. More recently the groups of questions have been used in the Teaching Excellence Framework (TEF)[1] and may be displayed on the Discover Uni website in future.

4. As students respond to the survey, they are told which group each question falls within. The online version of the NSS shows the theme name as a header on each question page and telephone respondents are told the theme name at the beginning of each set.

5. In addition to the grouping of the questions as presented to respondents, these historical questions had been tested as being appropriate to group statistically. This previous analysis had shown that each set of questions within a theme was appropriate to be grouped together as they appeared to be measuring a similar aspect of the student experience.

6. In 2022, proposed changes to the NSS were piloted. Analysis of the responses included a principal component analysis (PCA)[2] to assess the themes. This work suggested that in some cases the new questions did not naturally form clear themes, but that they could usefully be grouped.

2023 questionnaire

7. The 2023 NSS has a new question set and has moved to using direct questions and answer options rather than a consistent Likert response scale. This questionnaire was developed following the 2022 pilot. Respondents are still told which theme each question is in.

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[1] See 'Regulatory advice 22: Guidance on the Teaching Excellence Framework 2023', available at www.officeforstudents.org.uk/publications/regulatory-advice-22-guidance-on-the-teaching-excellence-framework-2023/.

[2] See www.officeforstudents.org.uk/publications/national-student-survey-2022-pilot/.

8. The OfS consulted[3] on the approach to publication of NSS results in early 2023. Within this consultation, proposal 3 related to the publication of theme measures. The proposal was to delay the publication of theme measures until statistical testing of the 2023 NSS data could be undertaken to rigorously assess their integrity. This was to allow time for further consideration of the approach to be taken, including assessment of themes for subgroups of the population.

9. Consultation responses raised concerns about the delayed publication of theme measures.[4] This note outlines our baseline check of the themes' integrity, which informed the decision to publish the measures with the first NSS publication.

Principal component analysis

10. Initial analysis results of the 2023 survey show lower correlations between questions in the same theme than was present in the previous pilot, suggesting less redundancy among the sets of questions. In particular, none of the correlation coefficients are above 0.7 and only one is above 0.6. This is predominantly as a result of removing some questions, following the analysis of pilot results.

11. Following the approach used in 2022, a principal component analysis was undertaken to assess the themes in the new questionnaire. To maximise the data available for this analysis, questions 1 to 24 have been included. The final four questions in the survey were either country-specific (those that covered freedom of expression and overall satisfaction), not part of the core questionnaire (mental wellbeing), or had a high level of not applicable responses (students' union).

12. Initial principal component analysis without a preset number of factors identified three broad themes (see Table 1 of the accompanying Excel download). These can be described as:

    a. Teaching and learning opportunities.

    b. Learning resources.

    c. All other aspects covered by the survey.

13. While one approach would be to simply use these three factors as themes, they may not provide users with much insight into areas that are performing well or poorly. The NSS has a high level of positive responses overall and a small number of response options, which can lead to few factors explaining most of the variation. It may be more helpful to further split these broad themes to gain more insight into specific areas of the student experience. In addition, changing our approach to use these themes would need further analysis before we were confident that they work for various subgroups. This approach could significantly affect users' use of the resulting data, and we would therefore expect to consult before implementing such a change. For these reasons, we are continuing the analysis to explore the effect of constructing the theme measures as they were presented to students.

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[3] See www.officeforstudents.org.uk/publications/consultation-on-the-approach-to-publication-of-results-of-the-national-student-survey/.

[4] See www.officeforstudents.org.uk/publications/consultation-on-the-approach-to-publication-of-the-nss-analysis-of-responses-and-decisions/.

14. The PCA was therefore re-run with a pre-defined number of factors. This forced the model to split the questions into more groups. Analysis was run for factors from four to eight, with most of the conclusions drawn from the seven-factor outputs as this is the number of themes presented to respondents.

15. A PCA model run on NSS questions 1 to 24 with a target of seven themes (Table 2) gave the following groups:

    a. Teaching and learning opportunities (questions 1 to 9, excluding 5 and 7).

    b. Exploring concepts in depth and bringing together ideas from different topics (questions 5 and 7).

    c. Assessment (questions 10 to 12).

    d. Feedback (questions 13 and 14).

    e. Academic support and organisation (questions 15 to 18).

    f. Learning resources (questions 19 to 21).

    g. Student voice (questions 22 to 24).

16. This set of themes is similar to those presented to students (see Annex A). The key differences are the apparent grouping of the majority of 'teaching and learning opportunities' questions, and the separation of 'assessment' and 'feedback' aspects of that theme.

17. Extending the analysis to eight factors (Table 3) showed 'academic support and organisation' and 'management' as separate factors but issues with the first three themes remained. None of the themes could be said to contain questions on completely disparate concepts, but the groups were not as distinct as previous versions of the NSS.

18. Additionally, the population was split between full- and part-time respondents to assess the themes separately for each (Table 4 for full-time and Table 5 for part-time). The structure of factors for full-time respondents is the same as the structure above, which is unsurprising as they form the majority of the NSS population. Analysis of part-time respondents indicated some differences for the teaching and learning opportunities themes when compared with full-time respondents but they gave the same broad picture.

Conclusions and next steps

19. This analysis, while limited, gives some confidence that using the existing themes for the NSS does not provide a misleading summary of the question set. Concerns have been raised regarding the first three themes and therefore, at this stage, themes are not recommended as the predominant method for displaying or analysing the 2023 NSS results. Given the issues identified, and the range of potential uses for the NSS results, users will want to consider whether and how the themes can be used to meet their needs. Users should take care to also consider the individual questions that form each theme, instead of relying on the theme measure in isolation.

20. Themes will be included as experimental statistics in the OfS official statistics publication, and shared with providers in the NSS results portal. These will be caveated to highlight the experimental nature of these statistics, and should not be used for marketing or shared with onward users without including the individual results for the questions that make up the theme.

21. Further analysis will be undertaken ahead of the 2024 NSS publication and any further uses of the themes, such as on the Discover Uni website or in the Teaching Excellence Framework (TEF). This would include looking at variations for sub-populations such as mature students or different subject groups.

Annex A: NSS 2023 questionnaire

Teaching on my course

1. How good are teaching staff at explaining things?

2. How often do teaching staff make the subject engaging?

3. How often is the course intellectually stimulating?

4. How often does your course challenge you to achieve your best work?

Learning opportunities

5. To what extent have you had the chance to explore ideas and concepts in depth?

6. How well does your course introduce subjects and skills in a way that builds on what you have already learned?

7. To what extent have you had the chance to bring together information and ideas from different topics?

8. To what extent does your course have the right balance of directed and independent study?

9. How well has your course developed your knowledge and skills that you think you will need for your future?

Assessment and feedback

10. How clear were the marking criteria used to assess your work?

11. How fair has the marking and assessment been on your course?

12. How well have assessments allowed you to demonstrate what you have learned?

14. How often does feedback help you to improve your work?

Academic support

15. How easy was it to contact teaching staff when you needed to?

16. How well have teaching staff supported your learning?

Organisation and management

17. How well organised is your course?

18. How well were any changes to teaching on your course communicated?

Learning resources

19. How well have the IT resources and facilities supported your learning?

20. How well have the library resources (e.g. books, online services and learning spaces) supported your learning?

21. How easy is it to access subject specific resources (e.g. equipment, facilities, software) when you need them?

Student voice

22. To what extent do you get the right opportunities to give feedback on your course?

23. To what extent are students' opinions about the course valued by staff?

24 How clear is it that students' feedback on the course is acted on?

Other questions
25. How well does the students' union (association or guild) represent students' academic interests?
26. How well communicated was information about your university/college's mental wellbeing support services?
27. During your studies, how free did you feel to express your ideas, opinions, and beliefs?
28. Overall, I am satisfied with the quality of the course.