

## **Student engagement in the UK: Cognitive testing survey items**

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### **Abstract**

Recent work has stressed the important links between educational gain and the pedagogical practices undertaken within institutions (Gibbs 2010, 2012). This led to a pilot Higher Education Academy (HEA) project exploring the viability of using items derived from the US-based National Survey of Student Engagement (NSSE) in the UK. NSSE aims to evaluate student engagement with activities likely to enhance their learning outcomes (Kuh 2001).

Items from NSSE have been cognitively tested (Kuh 2001; Ouimet et al 2001), but not extensively in a UK context. The initial pilot HEA project made modifications to the NSSE items to reflect the different context, developing into UKES. Testing was required to evaluate the robustness and validity of the student engagement items. This paper provides an evaluation of student understanding and validity of a selection of student engagement items derived from NSSE, across a range of institutional, subject and student characteristics.

### **Introduction**

Recent work has stressed the important links between educational gain and the pedagogical practices undertaken within institutions (Gibbs 2010, 2012). This led to a pilot Higher Education Academy (HEA) project exploring the viability of using items derived from the US-based National Survey of Student Engagement (NSSE) in the UK. NSSE aims to evaluate student engagement with activities likely to enhance their learning outcomes (Kuh 2001).

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This paper presents on two iterations of cognitive testing items, on an initial 14-item pilot and an expanded survey 50-item survey, along with additional questions tested for a new scale on student partnership.

### **Methodology**

This research project took a mixed methods approach, combining an analysis of the literature and related international efforts to modify student experience survey questions, in addition to new primary data collection through individual interviews, to explore student understanding of the survey items used in this project. Established research methods were applied, providing a wide set of data to validate and refine the questions. The research was designed to supplement the analysis of the data yielded by the surveys, to evaluate the validity and reliability the items, and the scales that they constitute, and make recommendations for improvements. This process has been completed for two consecutive years.

The project was based on a review of the literature on student engagement, with a focus on surveys and the development of the National Survey of Student Engagement (NSSE) (Kuh 2001). Attention was paid to the redesign of the NSSE 2.0 survey. There was an analysis of international examples of adapting US-based NSSE items, particularly the efforts in Canada to amend NSSE items, Australia (through the

Australian Survey of Student Engagement, AUSSE) (Coates 2010), South Africa (through South African Survey of Student Engagement, SASSE) and recent engagement pilot surveys in Ireland. A recent collection summarises international efforts to develop engagement surveys (Coates & McCormick 2014); the exclusion of UK-based efforts reflects the slow development of a system-wide approach. Overall, there is a dearth of published validity and reliability testing of student experience surveys.

## Participants

There was a mix of first, second, third and fourth year students interviewed, studying a variety of subjects. The first year pilot included the following subjects: American Studies, Biochemistry, Classics, Computing, Engineering (Mechanical, Biochemical, Electrical Power, Mechanical & Electrical), English Language & Communication, English Literature, Environmental Management, Film Studies, History, Law, Mathematics, Medicine, Midwifery, Music Performance, Pharmacy, Photography, Politics, Psychology, Radiotherapy & Oncology, Social Sciences, Social Work, and Theology & Religious Studies. There was an equal gender representation and participants included UK, EU, non-EU, mature and part-time students. The second-year review is currently underway.

## Protocol

Individual interviews with students were conducted. Interviews followed in the tradition of Tourangeau (1984):

1. Comprehension of the question (question intent and meaning of terms)
2. Retrieval from memory of relevant information (recall strategy)
3. Decision processes (motivation and sensitivity/social desirability)
4. Response processes (mapping the response)

The ‘think-aloud’ method (Willis et al 1999) was used, which directs students to ‘think aloud’ as they respond to the question, with little interference from the interviewer. This was followed by using verbal prompts, such as “when you answered ‘sometimes’, how often does that mean?” The research protocol included scripted probes, although spontaneous probes were used as appropriate. Scripts and questionnaire versions were updated and tested as interviews progressed.

## Analysis

In addition to adapting new versions of the survey based on students’ responses, we analysed the data from all of the interviews at the end of data collection. Following from the work of Conrad & Blaire (1996), we looked at three main stages of students’ responses and explored five potential problems when analysing the data from the cognitive interviews and focus groups.

## Initial Findings

Initial findings reported here reflect the data collection and analysis; the second year data is currently being collected and analysed. Unanimously, students were enthusiastic about the idea of engagement questions. Students felt engagement questions showed that the institution valued students’ experiences. Therefore, student engagement survey questions seem to be a valid and valued measure of the student experience.

Final year students we interviewed were critical of the National Student Survey (NSS) they had filled in earlier in the year, and found that engagement survey items seemed to be more appropriate for providing a more accurate and detailed view of students’ experiences and perceptions.

Students did not, or possibly could not, comment much on the cohesiveness of questions as benchmarks. Students reflected on their own experiences, and had difficulty thinking more broadly about the purpose and use of survey items as benchmarks. This is not criticism of the benchmarks (or students) but rather a note that the development of benchmarks may be outside of most students' concern.

Students were reluctant in answering items in a way that could seem like they were being critical of their institution. It is important to reiterate that different disciplines have different practices and that, for example, not doing a lot of group work with one's course-mates does not necessarily mean that the institution or department is doing something 'wrong'.

## Conclusions

There are emerging differences across fields of study and institutional type. This raises issues about broad national comparisons at the institutional-level, particularly where institutions have very different subject portfolios. Students reflect that filling out the survey makes them think more about their learning experiences, and can act as a prompt for them to consider how they spend their time and what kinds of activities- learning and extracurricular-they engage with as part of their student experience.

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