Student attitudes towards, and skills for, sustainable development

Summary 3: Learning and using skills for sustainable development during higher education
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September 2015
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### Key:

- **First-year tracker** (following responses from 2010 to 2014 from first-year students)
- **2012 cohort** (following responses from 2012 first-years, 2013 second years and 2014 third-years)
1. Summary 3: Learning and using skills for sustainable development during higher education

Research into student attitudes towards, and skills for, sustainable development (SD) was conducted for a fifth consecutive year in 2014. This annual study:

- updates our understanding on student attitudes towards, and skills for, sustainable development
- through 3,775 first-year and 1,973 third-year respondents in academic year 2013/14;
- identifies trends in demands and expectations from first-year students new to university;
- tracks longitudinal demands and expectations from first-year students as they progress through their university career;
- analyses the longitudinal variability in approximately 27,000 student responses between 2010 and 2014.

The research content repeated the previous questions to capture comparable longitudinal data. There was no reference to sustainable development in its promotion to reduce bias. Responses were weighted to reflect the demographic makeup of the UK student population.

This summary sheet includes information on the role sustainable development plays whilst respondents are in higher education including reflections on the importance of coverage by universities and colleges, their experiences of learning sustainability relevant skills and the methods through which these capabilities can be developed.

1.1 Key questions:

- To what extent did university performance on environmental and global development issues influence university choice?
- Should higher education institutions be obliged to develop students’ environmental and social skills?
- Should sustainable development be actively incorporated by universities and colleges?
- What do students think of current environmental and social performances across their institutions?
- To what extent are environmental and social skills covered by courses?
- How often do respondents carry out skills for sustainable development?
- How relevant is the inclusion of skills for sustainable development in courses?
- Where are sustainability skills developed?
- Do students want to learn about sustainable development?
- What methods of teaching are most relevant to learning about sustainability?
2. To what extent did university performance on environmental and global development issues influence university choice?

![Figure 2.1](image.png)

**Figure 2.1 | How important were the following when choosing which university or college to apply to? [FIRST YEARS TRACKER]**

2.2 Key findings

League tables and reputation are important factors influencing choice of university, with between 80% and 90% stating these factors were very important when considering their choice.

This has particularly been the case post-increase in tuition fees, with first-years in 2012, 2013 and 2014 significantly more likely to have considered these factors as “very important” than those in 2010 and 2011 prior to the increase. Further investigation of these results is necessary to more fully understand the influence of increased tuition fees and the marketisation of higher education on these findings.

2.3 First-year tracker

When taking into consideration wider responses, between a quarter and a third of first-year respondents in 2014, as in previous years, make some consideration of environmental and ethical performance (28.6%, n=1,092 considered how seriously the university/college takes environmental issues and 38.9%, n=1,480 considered how seriously the university/college takes global development issues in 2013).

The first-years taking part in the research in 2014 show small but non-significant increases in the ranking of performance on global development and environmental issues as important compared to responses in previous years of the research. For example, 30.1% 2014 first-years rank how seriously the university/college takes environmental issues as important, compared with 28.6% 2013 first-years.
3. Should universities and colleges be obliged to develop their students’ environmental and social skills?

Figure 3.1 | To what extent, if at all, do you agree that universities/colleges should be obliged to develop students’ social and environmental skills as part of their courses? [2012 COHORT]

3.2 Key findings

Despite university choice continuing to be influenced more greatly by the traditional indicators of quality, such as reputation and teaching, there is a strong expectation for universities to support the development of the wider suite of skills associated with sustainability literacy. Three-quarters of respondents agree that universities and colleges should be obliged to develop environmental and social skills among their students.

3.3 2012 cohort

Desire for universities and colleges to support the development of environmental and social skills increases as students progress through their university careers in the 2012 cohort, with 2014 third years significantly more likely to agree than 2013 second years and 2012 first-years that higher education institutions should act in this way.
4. Should sustainable development be actively incorporated by universities and colleges?

Figure 4.1 | To what extent, if at all, would you say that you personally agree with the following statements? [FIRST-YEARS TRACKER]

![Bar chart showing agreement and strongly agreement percentages across different years.]

4.2 Key findings

Respondents continue to confirm their desire for sustainable development to be actively promoted and incorporated by their university with around 80% agreeing with the statement.

4.3 2012 cohort

Desire for universities and colleges to support the development of environmental and social skills increases as students progress through their university careers in the 2012 cohort, with 2014 third-years significantly more likely to agree than 2013 second years and 2012 first-years that higher education institutions should act in this way (for example 45.2%, n=786 2014 third-years strongly agree compared with 39.3%, n=1,559 2012 first-years).

4.4 First-year Tracker

Desire for active incorporation and promotion of sustainable development remains consistently high among first-years throughout the five years of research, peaking in 2014 at 87.6% agreement (n=3,197). Respondents have also revealed a desire for an obligation to be set for course tutors to provide teaching and learning on sustainable development. This finding continues in 2014, with 50.1% of respondents agreeing with the proposition (n=1,814).
4.5 Other observations

Significant differences between UK and international students in terms of their desire to see action from their institution on sustainable development. Whilst overall agreement is consistent between the groups, international respondents exhibit greater strength of agreement that universities should actively promote and incorporate sustainable development with 50.6% (n=135) 2014 first-years from the EU strongly agreeing with the statement compared to 42.7% (n=1,366) UK 2014 first-years reporting that they strongly agree.

Again, the small sample size from within the international student population means that this finding warrants further investigation, along with variations according to domesticity. For example 41.8% (n=81) 2014 first-year international respondents from outside the EU strongly agreed that sustainable development is something that universities should actively incorporate and promote compared with 50.6% (n=135) 2014 first-years from within the EU.

Unsurprisingly, respondents studying earth sciences subjects were significantly more likely to agree that sustainable development is something that universities should actively incorporate and promote, however “written arts” respondents were also more likely to agree than those studying other subject areas (for example 71.3% (n=61) 2014 third-years studying earth sciences strongly agree, 54.9% (n=47) 2014 third-years studying written arts strongly agree and 43.6% (n=253) 2014 third-years studying science and mathematics subjects strongly agree).

5. What do students think of current environmental and social performances across their institutions?

5.2 Key findings

Approximately 80% of respondents share the belief that the university they attend practises and promotes good social and environmental skills.

5.3 2012 cohort

Unlike the 2010 cohort, those beginning their academic careers in 2012, have shown a significant decrease in positive perceptions of performance by their institution as they progress through university. 80.2% (n=1,406) 2014 third-years and 81% (n=1,333) 2013 second years agree to some extent that their university practises and promotes good social and environmental skills compared with 85.7% (n=3,417) 2012 first-years.
The same changes are also seen for course leaders and clubs and societies.

Introduced to the 2013 research, no change is seen in the assessment of performance of the practicing and promoting of good social and environmental skills by respondents' students' unions.

5.4 First-year Tracker

The first-year respondents also reflect this fluctuation. First-year perceptions of their university or college's action improved significantly over the first three previous years of research with 85.4% (n=3,447) agreeing that their university/college practises and promotes good social and environmental skills in 2012 compared to 77% (n=4,397) in 2010. However, this significantly decreases in 2013 with 84% agreeing (n=3,206) and 83.4% (n=3,092) in 2014.

The same fluctuations can also be seen among first-year perceptions of the performance of course leaders and the clubs and societies at their university/college - becoming increasingly positive between 2010 and 2012 intakes and then decreasing in 2013 and 2014.

5.5 Other observations

Perceptions of performance of clubs and societies remain consistently lower across all waves of the research (the option was included from the 2011 research onwards). However in contrast, the performance of students’ unions in terms of their practice and promotion of positive environmental and social skills is rated positively by three-quarters of respondents. This discrepancy may be explained by the role of students’ unions in campaigning on social and environmental issues, or through exemplification of positive behaviour for example through participation in schemes such as Green Impact Students’ Unions.

Further research would be needed to investigate these perceptions. The previous suggestion that the informal curriculum is currently under-used remains an important observation.
6. How often do respondents carry out skills for sustainable development?

6.2 Key findings

Relatively low numbers of respondents cite conducting sustainability skills “all the time” and difference between year groups for each skill is relatively minor.

6.3 2012 cohort

There is some evidence of an increase in the practising of skills as respondents progress through their university careers. For example, second years in 2013 and third-years in 2014 report a significant increase in “analysing using many subjects”, “all of the time” compared to 2012 first-years (17.9%, n=713 first-years 2012 compared with 22%, n=373 2013 second years and 23.9%, n=414 2014 third-years).
7. How relevant is the inclusion of skills for sustainable development in courses?

Respondents were asked to reflect on the relevancy of including sustainability skills in their courses.

7.2 Key findings

Respondents in the latest research continue to place high value on many aspects of sustainable development in terms of the associated skills increasing their ability to perform well in their courses during higher education.

7.3 2012 cohort

Consistent with the 2010 cohort, overall relevance ranges from 60% to 90% with only “understanding people’s relationship to nature” being consistently in the lower ranges for the 2012 cohort.

While no significant differences were seen between first and second year, third-year respondents are significantly more likely to rate a range of skills as extremely relevant (for example, 53.8%, n=931 2014 third-years compared with 48.3%, n=783 2013 second years rank “problem solving using many subjects” as extremely relevant).

7.4 First-year Tracker

Results from 2014 first-years continue to show a distinction between pre- and post-tuition fee increases, with skills consistently receiving a higher ranking in terms of their relevance post-fees increase.
8. Where are sustainability skills developed?

Introduced in this latest round of research, respondents were also asked to reflect on what part of their lives whilst in higher education had contributed to skills development.

8.2 Key findings

The responses reveal very few skills to have been comprehensively covered by respondents’ courses and modules, with approximately 50% identifying that the range of skills presented had been covered by their course.

In all cases, third-years in 2014 are significantly more likely to identify skills coverage in their course overall than first-years in 2014. For example, 21.5% (n=387) 2014 third-years reported that “understanding people’s relationship to nature” had been acquired through their course overall compared with 15.1% (n=560) 2014 first-years.

The more overt sustainability skills, such as understanding people’s relationship to nature and acting as a responsible citizen locally and globally, are reported to have been mostly developed through life experience outside university rather than through formal or informal learning at their institutions (for example 62.6%, n=1,087 2014 third-years have developed an understanding of people’s relationship to nature through life experience compared to 21.9%, n=380 who have done so through their course in general).

8.3 Other observations

These findings stress the importance of supporting students to identifying what they are learning, alongside improving capabilities to communicate the skills and knowledge they have learnt.

Understanding the framing of extracurricular activities is also important given the emphasis placed on this mode of learning by respondents later in the survey.

In some cases, respondents studying science and mathematics subjects are more likely to report that the skills identified through this research have been acquired through their courses. For example 64.2% (n=374) 2014 third-years report
that the ability to “think of the whole system and the links” has been developed through their course overall, compared to 58.7% (n=226) 2014 third-years studying humanities.

9. Do students want to learn about sustainable development?

### Figure 9.1 | To what extent, if at all, do you agree or disagree with the following statements? [FIRST-YEARS TRACKER]

<table>
<thead>
<tr>
<th>Statement</th>
<th>1st yrs (n=3649)</th>
<th>2nd yrs (n=1763)</th>
<th>3rd yrs (n=1765)</th>
<th>4th yrs (n=1743)</th>
<th>5th yrs (n=1781)</th>
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<tr>
<td>Problem solving using many subjects</td>
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<tr>
<td>Consider the ethical issues of your subject</td>
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<tr>
<td>Adapt to new situations</td>
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<tr>
<td>Think of the whole system and the links when considering new ideas</td>
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<tr>
<td>Use resources efficiently</td>
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<tr>
<td>Plan for the long term as well as the short term</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Act as a responsible citizen locally &amp; globally</td>
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<td></td>
<td></td>
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<tr>
<td>Analyse using many subjects</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand people's relationship to nature</td>
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</table>

9.2 Key findings

Across all years of research, and all year groups, approximately two-thirds of respondents exhibit a desire to learn more about sustainable development.

9.3 2012 cohort

There continues to be no significant change in desire to learn more about sustainable development between year groups which suggests that the capacity for increased coverage remains despite entering their final year at university (Figure 9). Student understanding of sustainability is key to comprehending where coverage can be improved.

9.4 First-year Tracker

In terms of first-year responses, demand for learning about sustainable development also remains consistent across the full five years of research.

9.5 Other observations

International respondents are significantly more likely to state a desire to learn more about sustainable development. For example, 23.9% (n=760) of 2014 first-year UK students strongly agree that sustainable development is something they would like to learn more about, compared with 35.7% (n=94) first-year respondents from the EU, and 32.3% (n=62) first-year respondents from outside the EU.
10. What methods of teaching are most relevant to learning about sustainability?

Figure 10.1 | What do you think the most relevant way of including social and environmental skills within your own course would be? [2012 COHORT]

10.2 Key findings

Respondents are amenable to the inclusion of environmental and social skills through a range of methods.

They show particular preference for building environmental and social skills into existing course content within the formal curriculum and through running activities within students’ unions.

10.3 2012 cohort

Research with the 2010 cohort uncovered changes in preferences as respondents’ progress through their academic careers. Respondents in this cohort expressed an increased preference for building environmental and social skills into existing content between first and second year, but then a decrease in preference for both this option and adding environmental and social material to the full course as they entered their final year.

It was hypothesised that this change could be the potential influence of existing course commitments for third-year students. Many may feel they don’t have time within their schedules to fit in extra teaching and learning on sustainable development. This reason was also felt to be a possible explanation for the preference for sustainability skills to be developed as extra-curricular activities, allowing students to participate as and when they are able.

No significant changes were seen in terms of preference between first and second years in the 2012 cohort, excepting a decrease in preference for running extra-curricular activities within departments (70.1%, n=2,786 2012 first-years compared to 68.2%, n=1,163 2013 second years) potentially explained by the introduction of the option to run extracurricular activities within the students’ union. However, third-years are significantly more likely to be open to the inclusion of environmental and social skills across the full range of methods presented (for example, 35.1%, n=607 2014 third-years rate including extracurricular activities through the students’ union as extremely relevant compared to 30.5%, n=491 2013 second years).
10.4 First-year tracker

Very little significant change is seen among the responses from first-years across the five years of research.

A small but significant change among 2014 first-years compared to all other first-year respondents is the rating of “adding a specific environmental and social skills module” as extremely relevant (18.6%, n=677 2014 first-years compared with 15.5% 2013 first-years, n=576).

10.5 Other observations

Further investigation could focus on the influence an increased profile of sustainability activities provided by students’ unions on an extracurricular basis, both as a result of work by NUS and independently by students’ unions, has had on respondent preferences for learning through this route.

Another hypothesis behind the preference shown for extracurricular learning on sustainability is the self-ascribed responsibility for preparation for future employment. These extracurricular activities could be seen by students as key means of demonstrating pro-active skills development to their future employers, as well as a means of securing valuable work-related experience.
11. This summary forms part of a series of short reports. Further detail on different aspects of the research can be found at:

Executive summary: Student attitudes towards, and skills for, sustainable development
Executive summary: Employer attitudes towards, and skills needs for, sustainable development
Summary 1: Existing skills – the influence of further education
Summary 2: Understanding attitudes and behaviours for sustainable development during higher education
Summary 4: Sustainability, skills, and employability

Appendix 1: Methodology
Appendix 2: Desk review – student attitudes towards, and skills for, sustainable development
Appendix 3: Desk review – employer attitudes towards, and skills needs for, sustainable development
Appendix 4: Student surveys
Appendix 5: Employer survey
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