

The Teaching- Research Nexus: NUS Insights Student Survey

Quantitative and qualitative findings

April 2022

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Executive summary

The relationship between teaching and research in higher education has come under increased scrutiny, with universities making choices about priorities in pursuit of prestige in the face of limited resources. In May 2018, the British Academy commissioned the NUS Insight Team to undertake a short online survey of students in higher education across a range of course types, to assess their attitudes to the relationship between teaching and research.

This report presents analysis of the quantitative and qualitative responses that were received from a total of 1311 students. These students represented all levels of university study, from undergraduate through to research postgraduate, as well as from across the spectrum of subjects. This report thus presents responses from students with different levels of personal engagement with research, as well as experiences of teaching in different contexts.

Students were clearly aware that their lecturers and tutors took part in research activity alongside their teaching activity. Publishing, developing new ideas for research and keeping up to date with the latest research in their field were most commonly considered to be the kind of research activities in which lecturers or tutors might be engaged. By contrast more teaching-focused activities such as face-to-face teaching and engaging with student online scored much lower in this regard.

Whilst students across the spectrum were clear that teaching and research activities supported each other in some respect, a greater proportion agreed that research activities informed teaching activities. When this question was reversed, responses were much more mixed and an increased proportion of students either disagreed with the question or responded that they did not know. There was also some evidence that a greater understanding of the connectedness of teaching and research activities developed over the course of study. The relationship between the two activities was viewed in a broadly positive light by students at all levels, with the most benefit, however, understood to be from research influencing teaching.

There remained a minority of students who identified a reciprocal relationship between teaching and research, more closely resembling a nexus. There were also suggestions that practical priorities and demands in higher education reduced teaching to a job requirement in support of research activity. Several students, across cohorts, also demonstrated sensitivity to the different skills required of the two activities, questioning whether good researchers always made good teachers and vice versa.

1.0 Quantitative findings

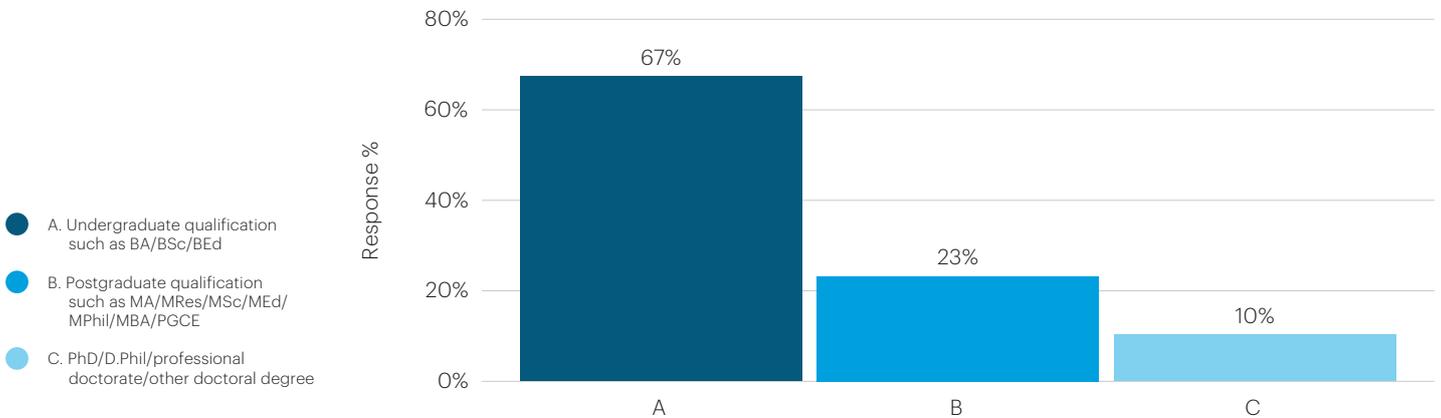
1.1 Survey sample

The survey achieved an original sample of 1311 Higher Education respondents. The response rate reflected the trend that females participate more than males in completing surveys. The initial gender split was 77% female and 20% male (3% non-binary/prefer not to say).

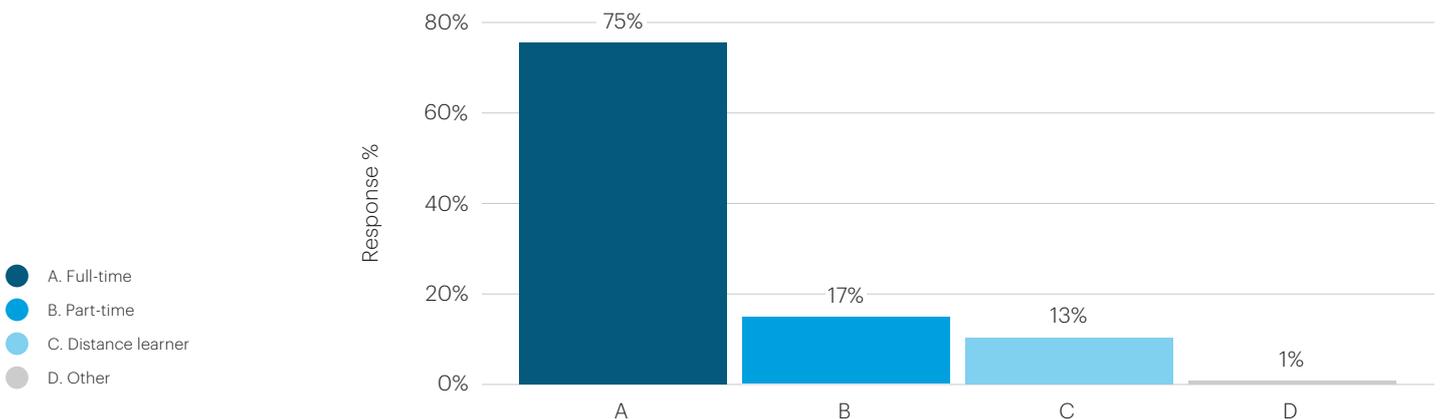
According to HESA statistics the gender split within Higher Education is 56% female and 44% male. In order to reflect this, 'weighting' was applied to the data. We adjusted the profile of the sample by applying weights so that the over represented group, females, are down weighted and the under represented group, males, are up weighted. This resulted in a gender split in this survey of 35% male and 62% female. The weighted base for the data is 1320.

1.2 Demographic information

Which of the following best describes your current level of study?



What is your mode of study? Please pick all that apply



Which of the following best describes the course you are currently studying?

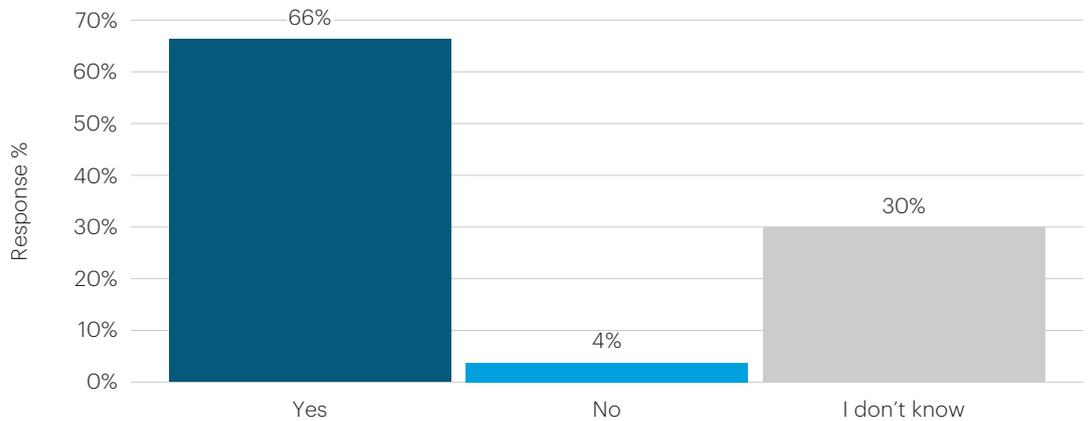
Agriculture and related subjects	0%
Architecture, building and planning	1%
Biological sciences	8%
Business and administrative studies	8%
Computer science	4%
Creative arts and design	8%
Education	7%
Engineering and technology	4%
Historical and philosophical studies	6%
Languages	3%
Law	3%
Mathematical sciences	2%
Mass communications and documentation	1%
Medicine, dentistry and related subjects	9%
Physical sciences	5%
Social studies	13%
Veterinary science	0%
Other	18%

Which of the following statements best describes you?

I am a UK citizen studying in the UK	84%
I am an international student from within the EU studying in the UK	6%
I am an international student from outside the EU studying in the UK	8%
Other	1%
I would prefer not to say	1%

1.3 Quantitative survey questions

Have any of your lecturers/teachers been involved in research activities in the current academic year?



Which of the following do you consider to be research activities that would be carried out by lecturers or teachers?

Writing and publishing journal articles or books	81%
Developing new ideas for research	76%
Keeping up to date with current research in their subject	76%
Incorporating their research into what they teach	73%
Attending conferences	64%
Involving students in their own research activities	63%
Helping students to carry out their own research	62%
Supervising PhD/research students	61%
Applying for funding for research projects	61%
Researching good practice and using it to develop their own teaching	58%
Working to communicate research to the public	53%
Supervising dissertations (undergraduate/masters)	51%
Developing materials for teaching	47%
Teaching students face to face (in a classroom, lab or studio for example)	36%
Assessing student work	34%
Interacting with students online	23%
Other	1%

Now, thinking from your own experience, and about how your teachers inform their work ... To what extent do you agree that your teachers' research activities inform their teaching activities?

Strongly agree	29%
Agree	47%
Neither	7%
Disagree	4%
Strongly disagree	3%
I don't know	9%

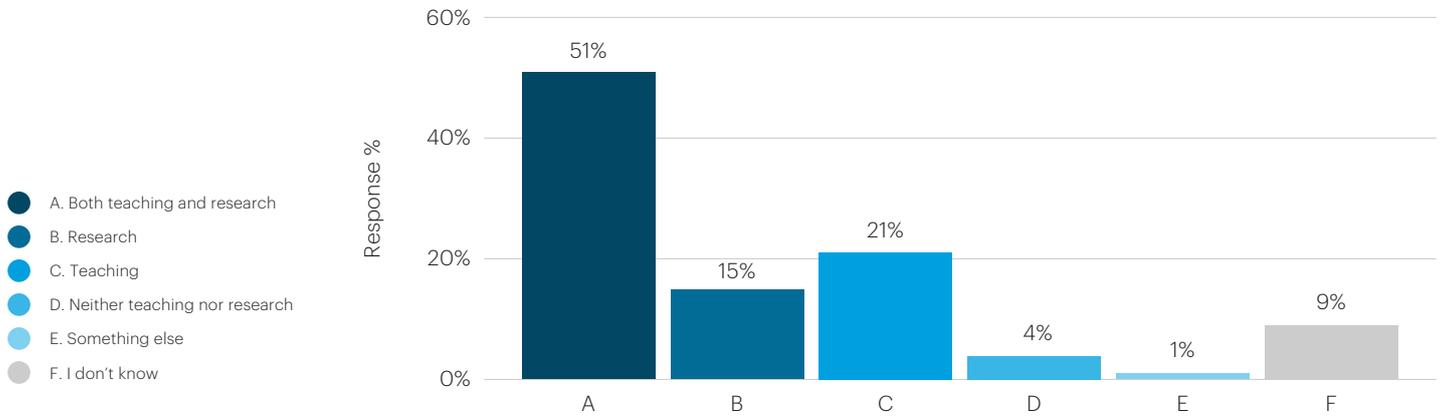
And vice versa, to what extent do you agree that your teachers' teaching informs their research activities?

Strongly agree	12%
Agree	41%
Neither	16%
Disagree	11%
Strongly disagree	3%
I don't know	17%

To what extent do you think that your teachers' teaching and research support each other?

Strongly agree	25%
Agree	50%
Neither	9%
Disagree	5%
Strongly disagree	3%
I don't know	9%

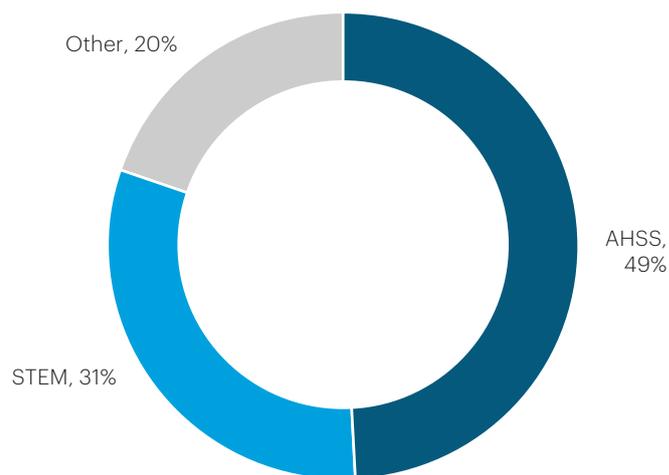
In your view, at your university, which aspects of academic work are prioritised?



2.0 Qualitative Findings

The following is a summary of the main themes to have emerged from the NUS survey data. The comments outlined below were made in response to the question: 'Teaching and research are often assumed to be connected in higher education. How do you understand them to relate to each other? Please type your answer in the box below'. Students who responded came from all three cohorts: undergraduate (UG), taught postgraduate (PGT), and research postgraduate (PGR). Of the 1311 students approached for this study, 128 (10%) gave no answer to this question or gave an irrelevant answer, leaving 1183 remaining comments. Percentages have been rounded to the nearest whole number.

Figure 1. Total responses by subject area



113 (10%) of the 1183 comments came from PGR students, of which 35% were studying arts, humanities and social science (AHSS) subjects. 258 (22%) responses came from PGT students, of which 59% were studying AHSS subjects. 812 (69%) of responses came from UG students and 49% of these were studying AHSS subjects.

2.1 Theme 1: A positive relationship

In total, 94% of the comments identified some form of connection between teaching and research. Expressions such as 'hand in hand' were used several times to describe the relationship, as well as terms like 'intertwined' and 'alongside'. These comments demonstrated an even split between science, technology, maths and engineering (STEM) subjects and AHSS subjects across the cohorts.

This is similar to the percentage of academics who identified teaching and research as being linked in their work to a greater or lesser degree, at 90-94%, as identified by McKinley et al.¹

'I always understood that they are intrinsically linked.'

UG – Law

'Teaching can be supported or questioned by research.'

UG – Education

'Teaching and Research are intertwined within higher education. In most cases research aids teaching different concepts and theories and helps with the understanding of why a certain outcome arises.'

UG – Social studies

Students identifying a connection can be broadly split into three groups: those who explained the connection in terms of defining 'teaching' and 'research'; those who related the two practices to the student study experience; and those who identified a positive connection primarily in terms of content and influence.

The latter, larger group commented that teaching was normally undertaken by academics also actively engaged in research. Where this was elaborated upon comments were largely positive in their assessment, with research undertaken by teachers seen as important for keeping the teaching material and content up to date and relevant.

'Up to date research is often very important to ensure that the material being taught is relevant and up to date. As a Law student this is extremely important due to the constant changes in the law.'

UG – Law

'Lecturers should be undertaking current research and integrate their findings into the topics they teach to students of all levels.'

PGT – Education

'On going (sic) research provides current and relevant content to teaching.'

UG – Creative arts and design

The importance of the relationship between teaching and research in pedagogical terms was also highlighted in a review of existing literature on the relationship between research and education, conducted by the Nordic Institute for Studies in Innovation, Research and Education.² 4% of student responses to the NUS Insights survey commented on the importance of researching pedagogical methods as an important element of the relationship between teaching and research. This was something expressed by a greater number of students studying AHSS subjects (62% of these responses) and of these, primarily by undergraduates. These comments identified a relationship between teaching and research as being important for

1 McKinley, J., Harris, A., Jones, M., McIntosh, S. and Okpevba Milligan, L. (2019), *An Exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education*, p. 21

2 Elken, M., & Wollscheid, S. (2016), 'The relationship between research and education: typologies and indicators. A literature review', Nordic Institute for Studies in Innovation, Research and Education (NIFU).

training a new generation of researchers, as well as academics maintaining effective and innovative teaching practices.

It should be noted, however, that around 92% of comments identifying a positive relationship saw this as being one-way, with research feeding into or influencing teaching. There was also a tacit assumption in these cases that researchers made better teachers. This correlates less well with the analysis undertaken by McKinley et al of academics' responses, where those who understood there to be a close connection between the two activities primarily saw this in terms of a more reciprocal relationship.³

2.2 Theme 2: A reciprocal relationship

A reciprocal relationship was less well reported by students, representing just 3% of comments identifying a connection between teaching and research.

'In an ideal situation it is a loop where research influences learning and vice versa.'

PGR – Business and Administrative Studies

These comments were evenly split between undergraduate and postgraduate students, and with even numbers of taught postgraduates and research postgraduates. Where subject information was given, 68% were AHSS students.

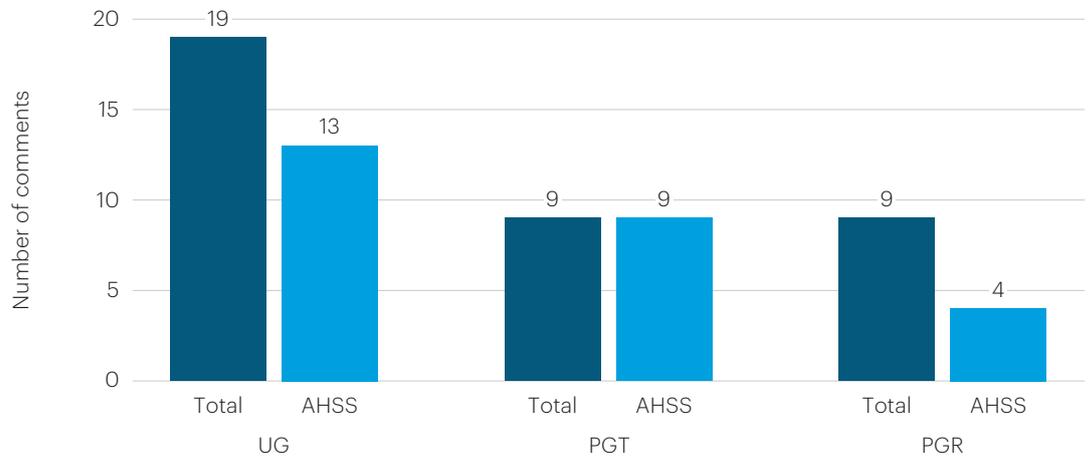
'Research informs teaching, and brings new insights and new thoughts to allow teaching to reflect the latest thinking on a topic. ... It can seed the idea of challenging what that research tells us – laying the groundwork for the student, at any level, to hone critical skills. Teaching enables researchers to understand how research is received.'

PGR – Other

'Both are essential elements of the university environment – research allows for more innovative teaching and teaching inspires ideas for further research, as well as training future researchers.'

UG – Languages

Figure 2. Comments identifying a reciprocal relationship



2.3 Themes 3 & 4: Different skills sets and primary research focus

Two connected themes were also apparent from 3% of the comments. These noted the different skills required for teaching and research and perceived pressure on academics to prioritise research. Undergraduate and postgraduate responders both noted that good researchers did not always make good teachers and vice versa.

‘A good teacher is not always a good researcher, just like a good researcher is not always a good teacher.’

UG – Business and Administrative Studies

‘I think they are linked in the sense that teachers should be discussing latest research with students however it is questionable whether good researchers make good teachers.’

PGT – Education

‘They should not necessarily be done by the same person. Great researchers may be poor teachers and vice versa. Good researchers may see teaching as a chore they have to do in order to continue researching at their establishment.’

UG – Biological sciences

There was a suggestion that greater emphasis on the importance of research, and pressure in this regard, could be a hindrance to good teaching and negatively impact the connection and relationship between the activities. Of these comments, 70% were undergraduate perceptions and 53% the views of AHSS students. In some comments, teaching was viewed as something academics were obliged to undertake if they wanted to pursue their research interests. This may reflect conflict between the ideal relationship between teaching and research and the reality in practice.

‘It seems that academics are highly pressured to research and publish and that this detracts from their ability to teach new and interesting material and to give attention to students.’

PGT – Business and Administrative Studies

‘Lecturers are obliged to teach students and advance the institute whilst building on their own CV.’

UG – Social studies

‘Researchers are usually forced to teach so they can have their research funded.’

UG – Business and administrative studies

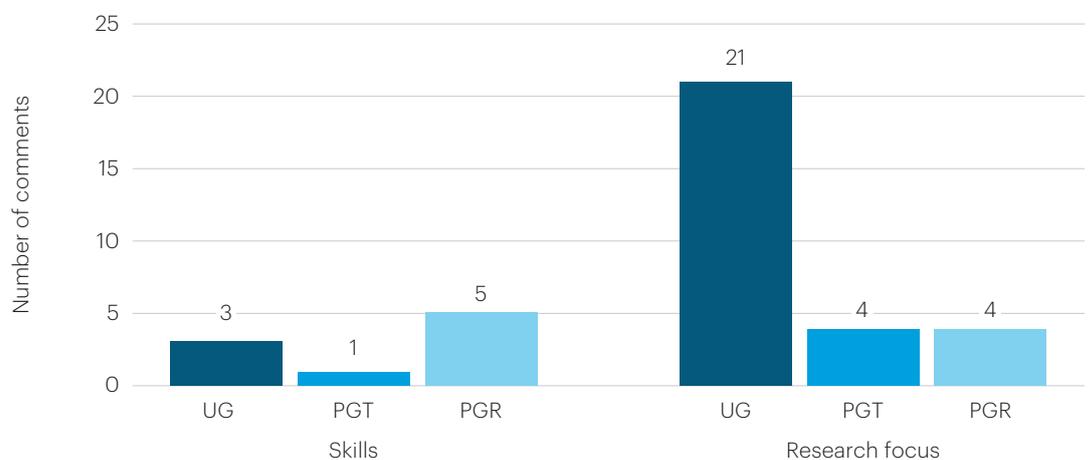
One postgraduate research student suggested that these combined pressures and requirements may also adversely affect those early career researchers looking to build their CV and forge an academic career:

‘The popular conception is that teaching and research often pull in different directions and that career academics resent having to teach because it takes them away from research. I think this is largely true, though not because of over disinclination on the part of academics. Rather it is a response to limited time and a heavy work schedule. Research is stressful and demanding, and there is no great inducement to teach beyond the acceptance that it is expected as a source of employment. As such, teaching (especially from PGR students) can be a mixed bag in terms of quality. Though the majority of PGR teacher (sic) I have encountered have been quality candidates, some have been visibly exhausted, stressed, and disorganised while teaching classes.’

PGT – Historical and philosophical studies

This would seem to support a question posed by McKinley et al, arising from their survey of academics,- around whether institutional structures support academics’ practical negotiation of research and teaching activities and priorities.⁴

Figure 3. Different skills and primary research focus



⁴ McKinley et al, *An Exploration of the Teaching-Research Nexus*, p. 26

Some student comments also identified the potential for a greater emphasis on research to have a negative impact on teaching development in terms of pedagogical practice, rather than just content.

'Research is generally used to be disciplinary research. Some 'researchers' also teach, however they prioritise their disciplinary research activities above their teaching often leading to antiquated and pedagogically unsupported methods thereby negatively (sic) impacting upon students learning gains. ... Time is not given to these practitioners of pedagogy to contribute to their field in a meaningful way.'

PGR – Biological Sciences

Whilst differentiation of skills was not apparent in the academic responses analysed by McKinley et al, there was certainly a sense that increasing pressure in relation to both teaching and research had an impact upon the relationship between the two. Of those academics who saw little correlation between the two activities, they saw this as a result of increased teaching loads requiring them to teach outside of their research 'comfort zones' and specialisms.⁵

2.4 Theme 5: No relationship

Of the 1311 responses, 5% either saw no relationship between teaching and research or commented that they did not know.

'Not much. I know that research takes place frequently throughout my Uni and my lecturers have had time off to research and write books/journal articles.'

UG – Education

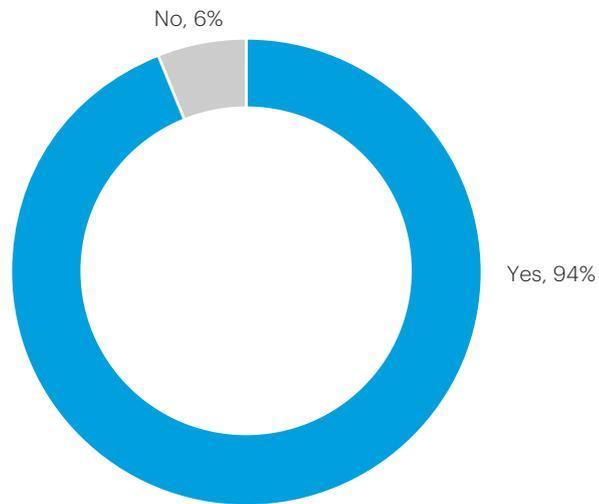
'Badly related, with teaching often the poor relation.'

PGT -Historical and Philosophical Studies

'I do not think these are related. Teaching is the act of imparting 'accepted wisdom' to those who do not yet know, while research is the investigation into yet-to-be-discovered knowledge. In practice, many lecturers seem to see teaching as a necessary evil to allow them to do research in the university.'

PGR – Biological Sciences

Figure 4. Is there a relationship between teaching and research?



As was the case with those academics interviewed by McKinley et al, however, those who saw no relationship between the two activities, or were not aware of one, were in the minority. 68% of these comments in the NUS Insights survey also came from undergraduates, suggesting that understanding of a relationship between teaching and research may become more apparent as engagement with both activities develops over the course of study.⁶

'Being in my final year of study, I now understand that they are connected. But in my first year, I didn't realise this.'

UG – Historical and Philosophical Studies

⁶ The development of this understanding over the course of a student's period of study has also been discussed in Clark T. and Hordósy, R. (February 2019), 'Undergraduate experiences of the research/teaching nexus across the whole student lifecycle', *Teaching in Higher Education* 24.3, 412-427

Summary findings and reflections

Student responses to the survey conducted for the Academy by the NUS Insight team suggest a broad awareness of a relationship between teaching and research. In both the quantitative and qualitative analysis, it was apparent that these were not viewed as wholly separate activities, though the way in which teaching and research relate to each other presented a more complex picture.

Amongst the student responders, there was a high level of awareness that their lecturers and teachers were engaged in some sort of research activity alongside their teaching. Half of the quantitative responses also gave both teaching and research as aspects of academic work that their universities prioritised. Of those who felt that one or other of the activities received greater priority, a greater number considered teaching to be the favoured activity. Given that most students were enrolled on taught courses, whether undergraduate or postgraduate taught, it may be that these numbers reflect their different levels of engagement with teaching and research activities in the course of their own studies.

It might be expected that most students would identify publishing journal articles or books, developing new ideas for research, and keeping up to date with current research in their subject as the research activities in which their lecturers or teachers might be engaged. Similarly, we might expect activities such as face-to-face teaching, assessing student work, and interacting with students online to be viewed as more teaching-focused activities. It is significant, however, that only a minority of students perceived no connection at all between teaching and research activities.

Where a relationship was identified this was overwhelmingly viewed in a positive light, with research seen as being of particular benefit to teaching. Quantitative responses highlighted the importance of research for enhancing teaching material, alongside pedagogical enhancement. The importance of pedagogical research and development was noted particularly by undergraduate AHSS students and this may be a reflection of their experiences of more lecture and seminar-based, as opposed to lab-based, teaching practices.

In contrast to the academics surveyed by McKinley et al for their report, students were less likely to identify a reciprocal or nexus-like relationship between teaching and research and the term 'nexus' was not used by any student who responded to the survey.⁷ Those who did perceive a reciprocal relationship were, however, more likely to be AHSS students than STEM, but just as likely to be an undergraduate as a postgraduate.

7 McKinley et al, *An Exploration of the Teaching-Research Nexus*, p. 26.

Awareness of different skills required and of research-focused institutional priorities were identified by a smaller number of students, but their comments shed light on a possible straining of relations between teaching and research in a practical context. Several comments, for example, questioned whether excellent researchers made the best teachers and vice versa. Observations suggesting that pressures on academics to research and publish might detract from their ability or willingness to teach indicate that institutional priorities may, in some instances, have caused the relationship between teaching and research to break down. It is particularly notable that this is something that students themselves have identified and it is a matter of concern that these comments came from students across all cohorts.

The findings from the NUS Insight survey of students and their perceptions of the relationship between teaching and research offer a number of points for consideration. There are many positives to be taken from the responses, including the overwhelming sense that teaching and research activities are related to each other and the positive impact that research can have on teaching practice. A nexus between the two activities is, however, less evident from the responses and, whilst some students, at all levels, did identify a reciprocal relationship, these were in a minority. There is also some evidence that competing pressures on academics and the shift in higher education and institutional priorities towards research may be damaging to the relationship between teaching and research. Based on some of the responses here, there is also a risk that teaching increasingly comes to be seen by students as the poorer relation, and implications that this may have for student satisfaction.

References

Clark T. and Hordósy, R. (February 2019), 'Undergraduate experiences of the research/teaching nexus across the whole student lifecycle', *Teaching in Higher Education* 24.3, 412-427.

Elken, M., & Wollscheid, S. (2016), 'The relationship between research and education: typologies and indicators. A literature review', Nordic Institute for Studies in Innovation, Research and Education (NIFU).

McKinley, J., Harris, A., Jones, M., McIntosh, S. and Okpevba Milligan, L. (2019), *An Exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education*.

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The British Academy
10-11 Carlton House Terrace
London SW1Y 5AH

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