

Students' views of engagement data analytics

WONKHE

SOLUTIONPATH

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Introduction

There are numerous good reasons to consider making use of learning engagement analytics to help meet the needs of a large and diverse study body:

- To support student wellbeing and particularly to provide an early warning system of students who may be struggling with mental health, or academic engagement, and be at risk of early withdrawal or at risk of harm
- To support students' academic success by tracking individual or cohort patterns of engagement and using the data to inform the design and evaluation of support or enhancement interventions - either for individual students, such as academic coaching, or for whole cohorts, to inform adoption of learning resources or curriculum enhancement
- To gain insight and provide assurance on engagement of specific student groups such as international students, or disabled students, who may need specific provisions to ensure they are able to make the most of their university experience

Whatever the objective, making use of students' data in this way requires ongoing engagement with students on how the data is used, how their privacy is protected, and what it means for their success.

This research, drawn from a nationally representative sample of c.500 students commissioned jointly by Wonkhe and Solutionpath from Cibyl, shows that students readily grasp the purpose of learning engagement analytics and are clear what learning activities are more meaningful to helping them do their best work. The vast majority – 80 per cent of our sample – are supportive of the use of learning engagement data to inform student support provision, enhance the learning environment, and enable them better to understand their own progress. It also confirms that the majority - 65 per cent – would turn to their personal or academic tutor if they were flagged as potentially struggling with low engagement, suggesting the continued importance of personal relationships as part of the student support ecosystem.

The research also indicates the areas where universities may want to be especially attentive to where students might be concerned about their use or proposed use of engagement analytic data. Privacy is one area but the larger concern is about universities' sensitivity to how students' circumstances might shape their engagement, whether that relates to complicated lives, disability, or general learning preferences. Students want to be assured that the use of data is designed to be supportive, not punitive.

We're aware that universities are looking closely at their student support systems, and thinking through the link between students' wellbeing and their academic success. We hope where engagement analytics form part of institutional plans that these findings can offer helpful insight and support for that conversation.

About the research

RESEARCH QUESTIONS

1. What (trackable) behaviours and activities students do consider to be meaningful to their educational success?
2. How comfortable are they with universities collecting data on their learning and other behaviours?
3. What do they think universities should do with the data they collect?
4. How would students like to use learning engagement data for themselves?

METHODOLOGY

Wonkhe and Solutionpath commissioned Cibyl to carry out a survey of c.500 undergraduates on the topic of learning engagement analytics.

A nationally representative sample was invited to take part in the survey in June 2023. Once the data had been cleaned the final sample was 496.

RESPONDENT DEMOGRAPHICS

Gender: Male 23% | Female 73% | Non-binary 3%

Age: 20 and under 43% | 21-24 38% | 25+ 19%

Disability: Yes 34% | No 59 %

Ethnicity: White 57% | Black 9% | Asian 22% | Other/mixed 9%

Eligible for means-tested bursary: Yes 26% | No 43% | N/A 31%

Year of study: First 36% | Middle 33% | Final 31%

Domicile: Home 78% | International 22%

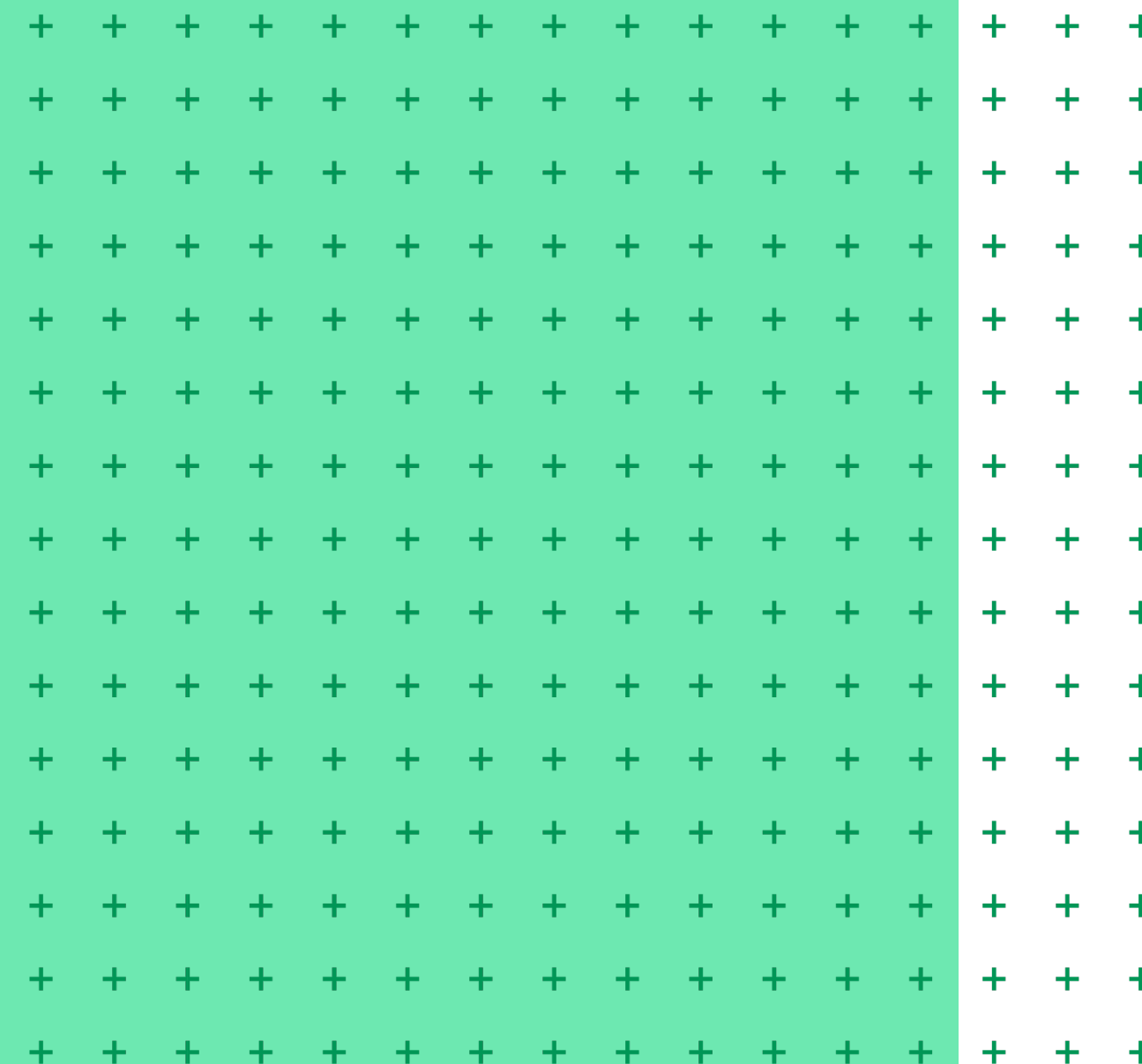
Subject: STEM 39% | non-STEM 61%

Region: London 24% | Rest of England 64% | Scotland 6% | Wales 6% | Northern Ireland 1%

Throughout, to be sure of drawing useful insight, we have noted demographic differences in responses where the size of each sub-group is larger than 100 or 20% of the total sample, and where the difference is five or more percentage points.

We identified differences in response on some questions for disability, year of study, and domicile and have explored these in more depth at the end of the report.

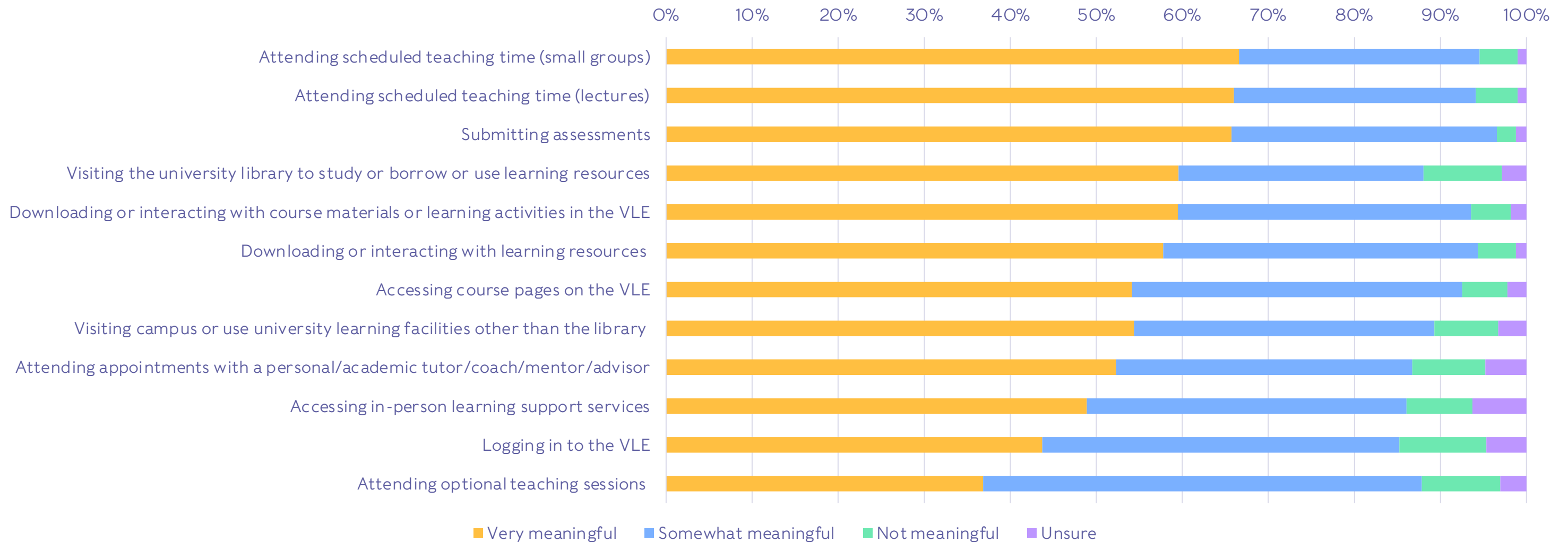
Engagement behaviours: learning and teaching



Meaningful engagement

Students consider attendance at scheduled teaching time and submission of assessments to be the most meaningful activities to helping them do their best work, but all the suggested learning and teaching related activities are considered very or somewhat meaningful by the vast majority of respondents. “Attending scheduled teaching time” includes in person and online.

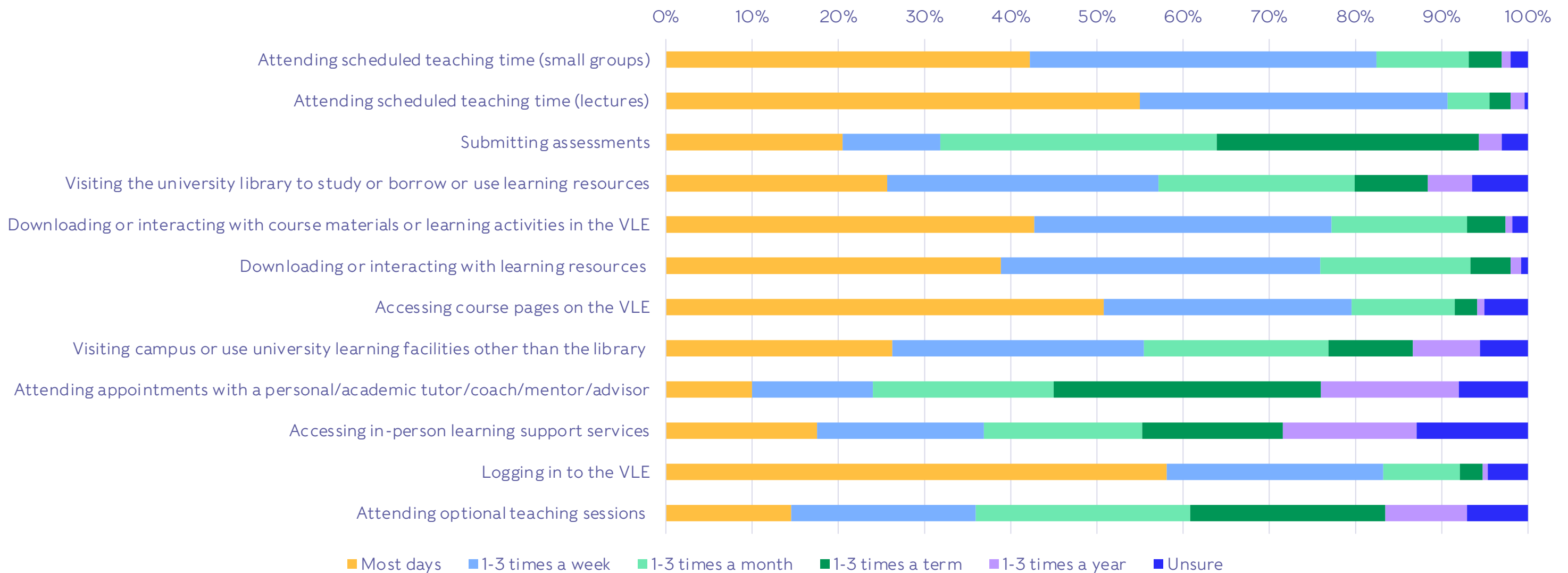
How meaningful do you consider each of these activities to helping you do your best work while at university? *All respondents Note: We have edited labels for readability mainly by removing examples.*



Frequency of engagement

When thinking about what data to monitor frequency is an important consideration – if the activity is infrequent then changes in engagement may not be trackable in time to support an intervention. Attendance at scheduled teaching time and engaging with the VLE seem to be most reliably frequent activities - though simply logging into the VLE was viewed as less meaningful than engagement with course pages.

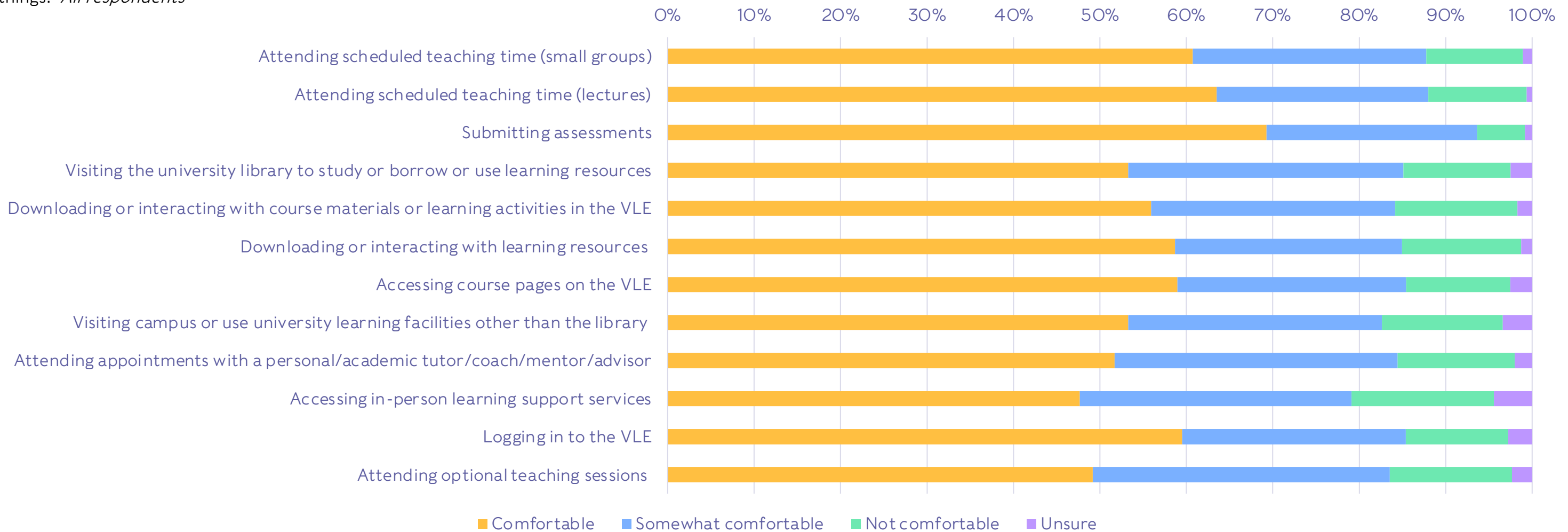
How frequently do you estimate you do each of these activities during term time? *All respondents*



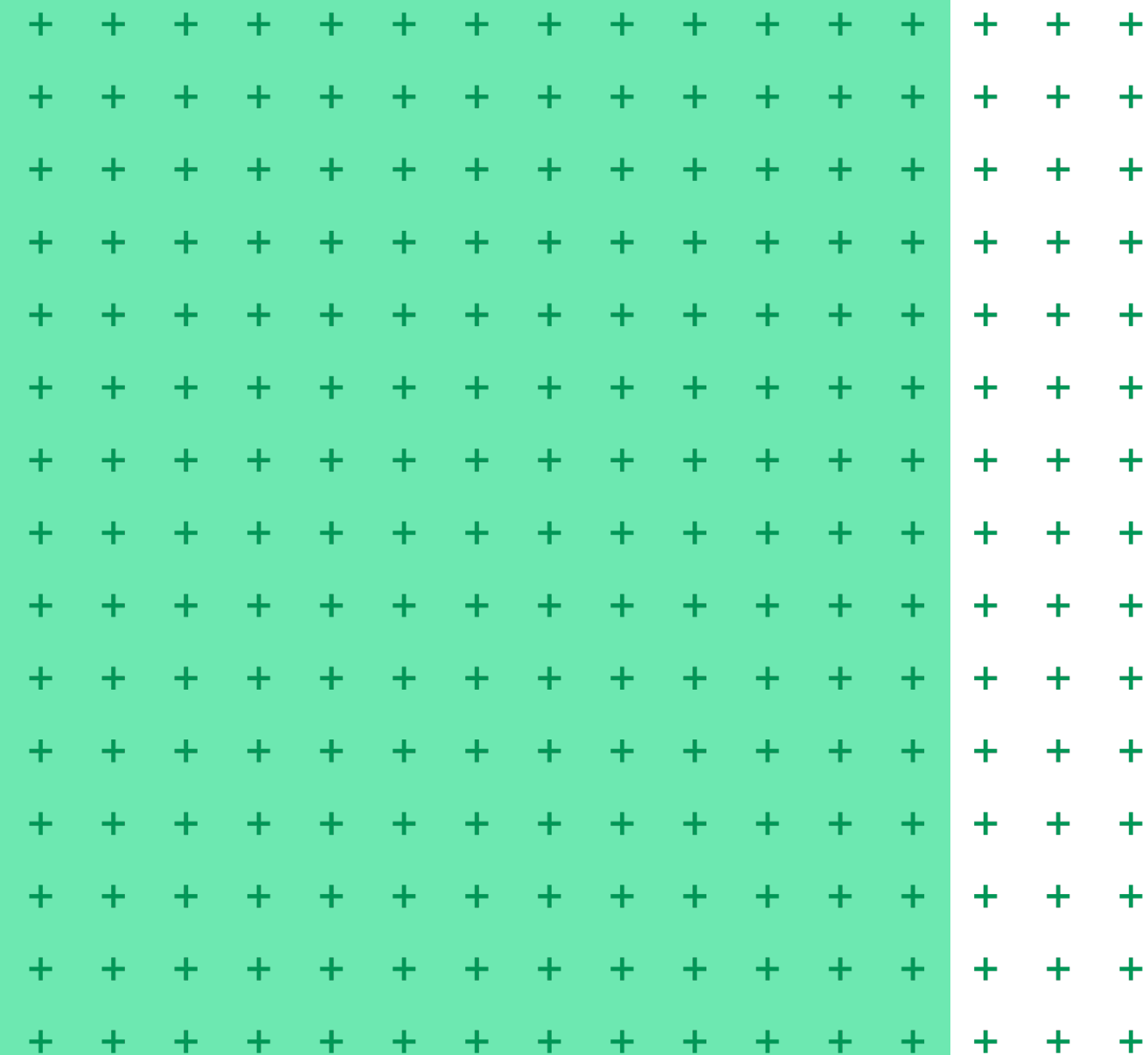
Comfort with data on engagement being collected

Most students are comfortable or somewhat comfortable with their university collecting data on their learning and teaching activities – though there is greatest alignment between activities students find most meaningful and those they feel comfortable about data being collected on. “Somewhat comfortable” could indicate a desire for assurance about the purpose and use of data collection.

Assuming the goal is to support your academic success and wellbeing, how comfortable are you, or would you be, with your university collecting and analysing data about how frequently you do these things? *All respondents*



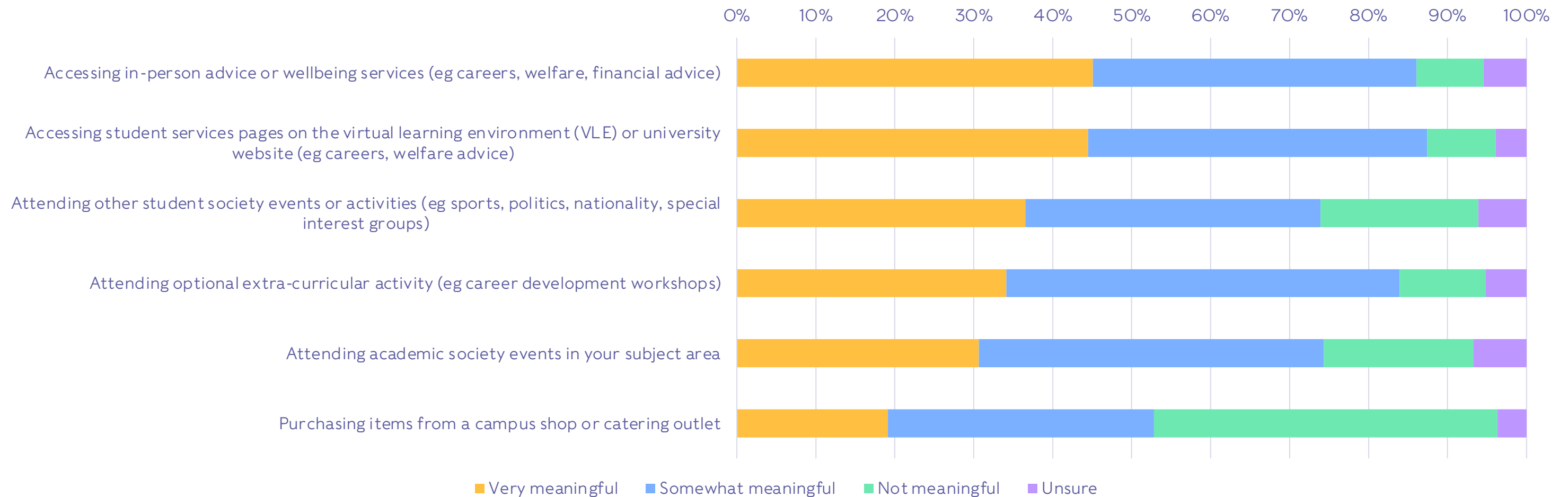
Engagement behaviours: campus services and extra- curricular



Meaningful engagement

Though it's not common for universities to track activities not directly related to teaching and learning, we wanted to test students' attitudes to this to inform thinking about whether it might have some merit, especially in light of wider conversations about student wellbeing and belonging. It's clear that students place a lower value on these kinds of activities, especially engagement with catering outlets and shops, though beyond that, between 30-45 per cent still consider these activities very meaningful and three quarters or more very or somewhat meaningful.

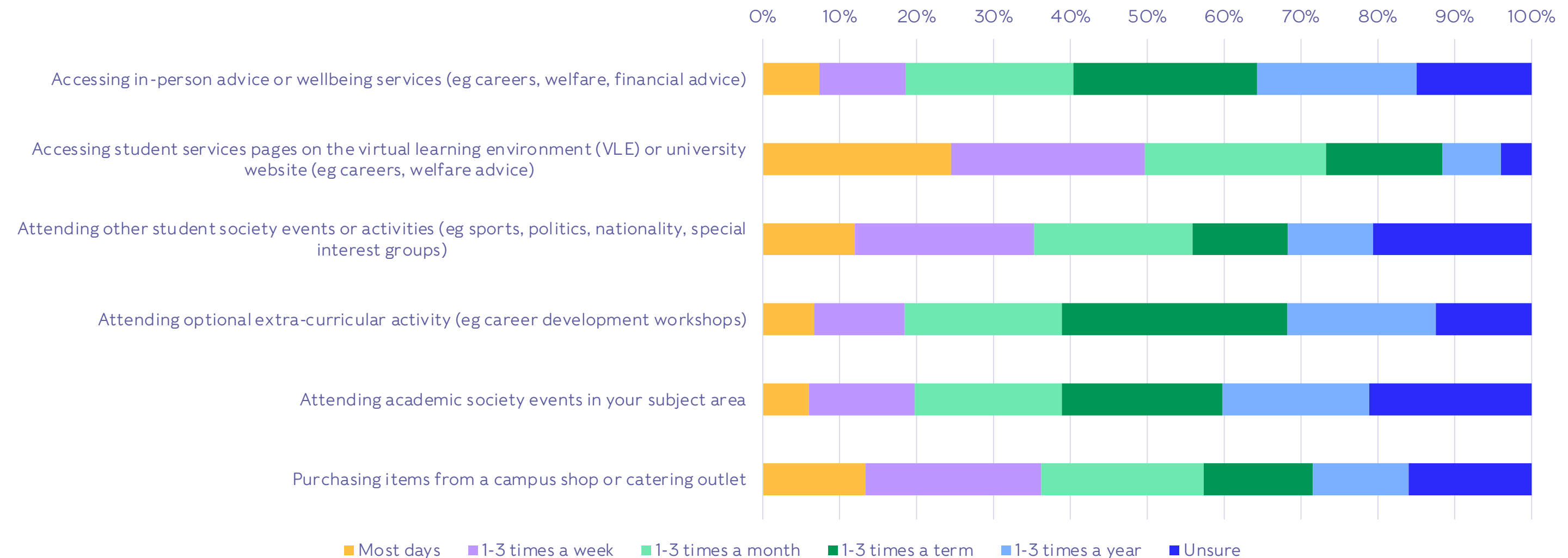
How meaningful do you consider each of these activities to helping you do your best work while at university? *All respondents*



Frequency of engagement

Engagement with campus services and extra-curricular activity is likely to be more differentiated by student group and more sporadic, so may not be ideal to generate useful engagement patterns – but it could, perhaps, form part of an individual student profile, if handled appropriately.

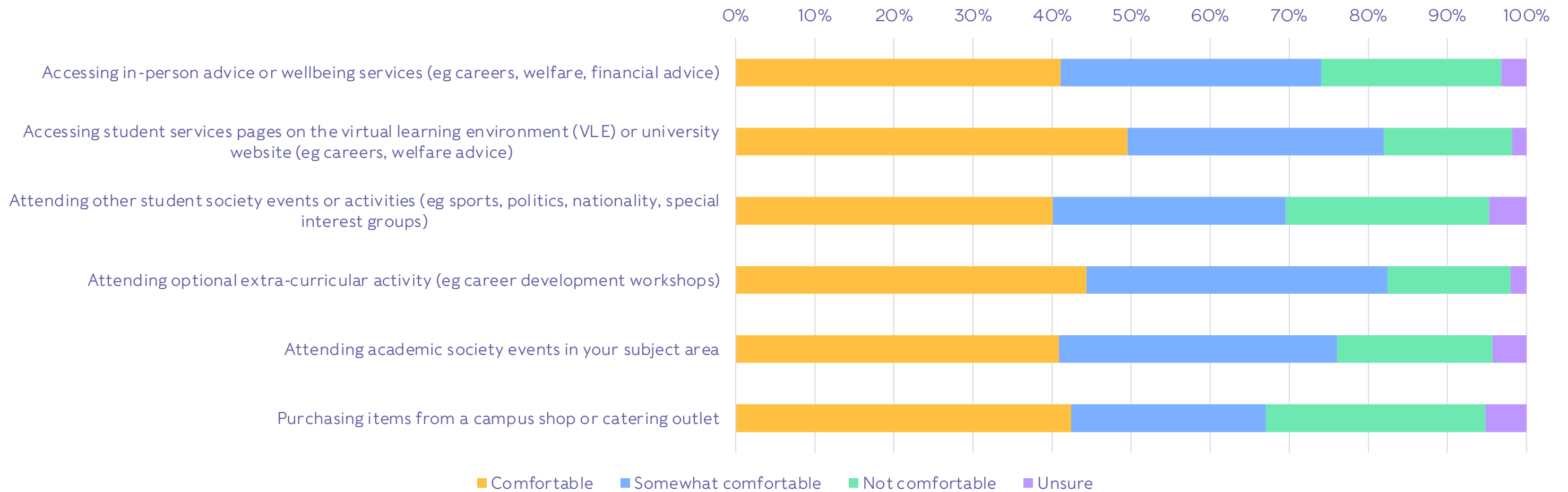
How frequently do you estimate you do each of these activities during term time? *All respondents*



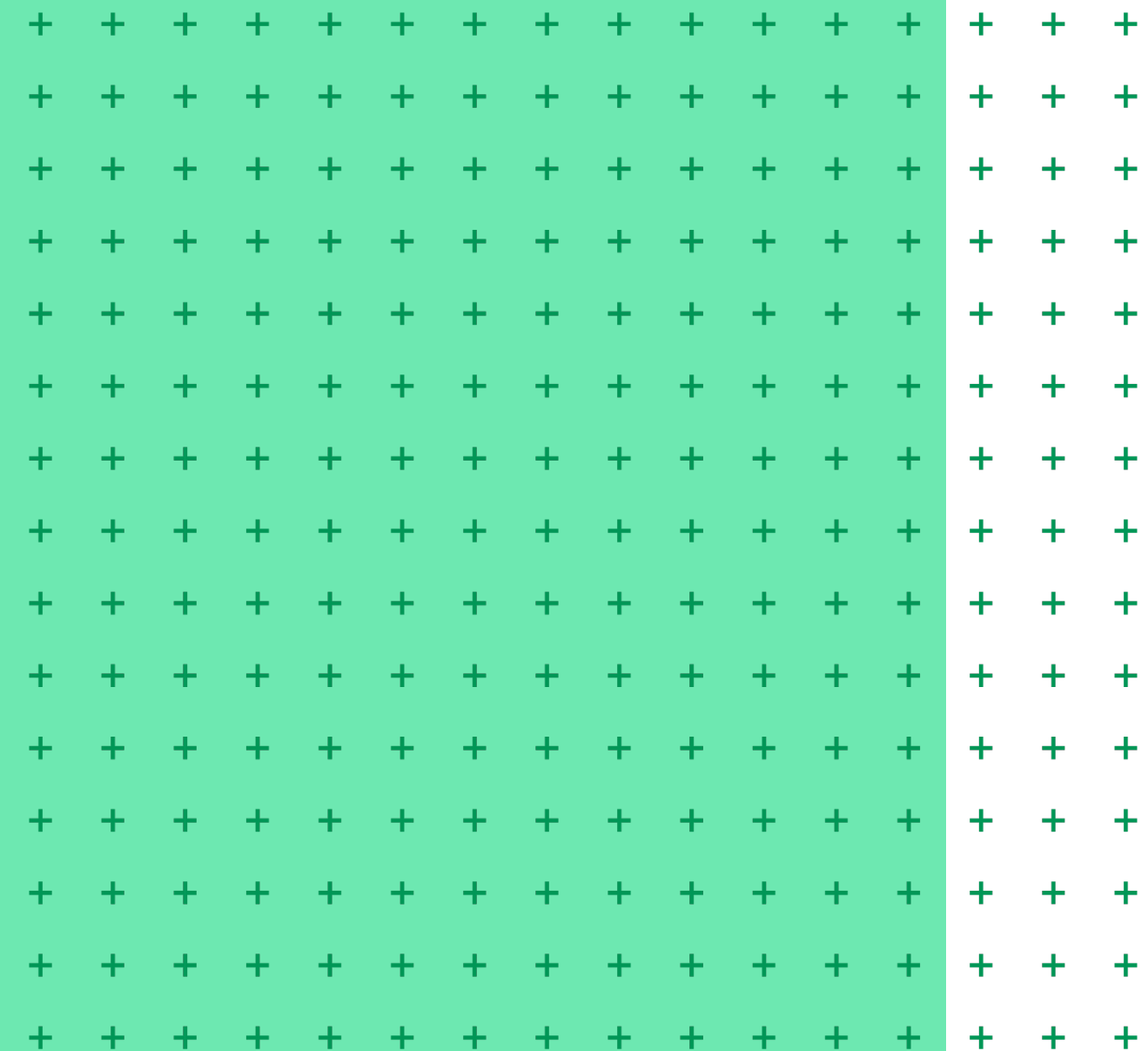
Comfort with data on engagement being collected

Students are noticeably less comfortable with universities collecting data on their engagement with campus services and extra-curricular activities than they are with learning and teaching-related activities, but most report they are still comfortable or somewhat comfortable – so if it’s something an institution feels is important it might not need to be ruled out on this basis.

Assuming the goal is to support your academic success and wellbeing, how comfortable are you, or would you be, with your university collecting and analysing data about how frequently you do these things? *All respondents*



Using engagement data to support students

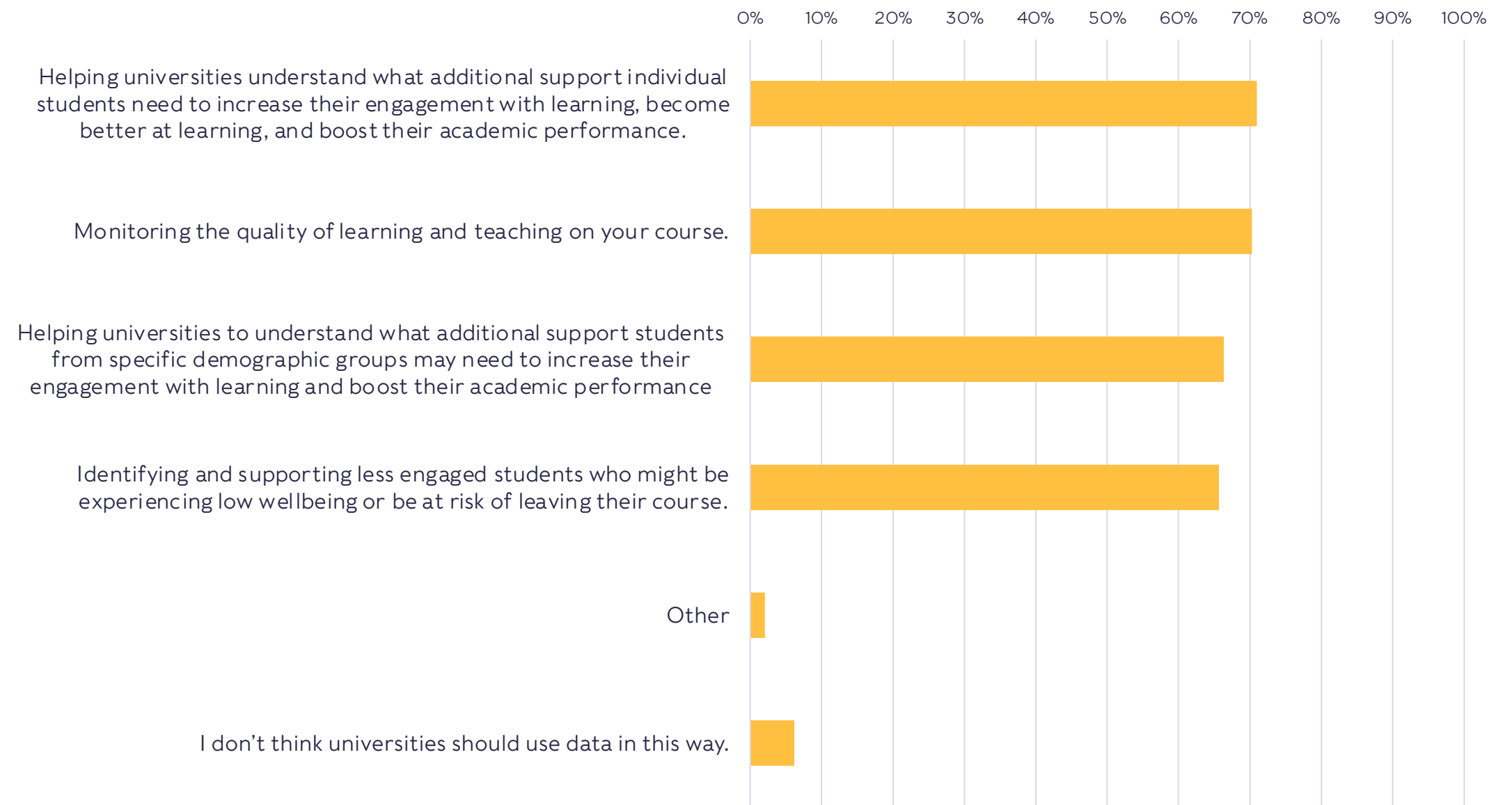


How should universities use student engagement data?

We asked students about what they thought the purpose of collecting engagement data should be – they could select any answer that applied.

Most students – two thirds and above - were supportive of the range of use-cases for learning engagement analytic data offered and only 6 per cent felt that universities should not use data in this way at all.

If your university collects or were to collect data about your engagement with learning and campus, for what purposes do you think it should be used? *All respondents*



What should universities do to respond to low engagement?

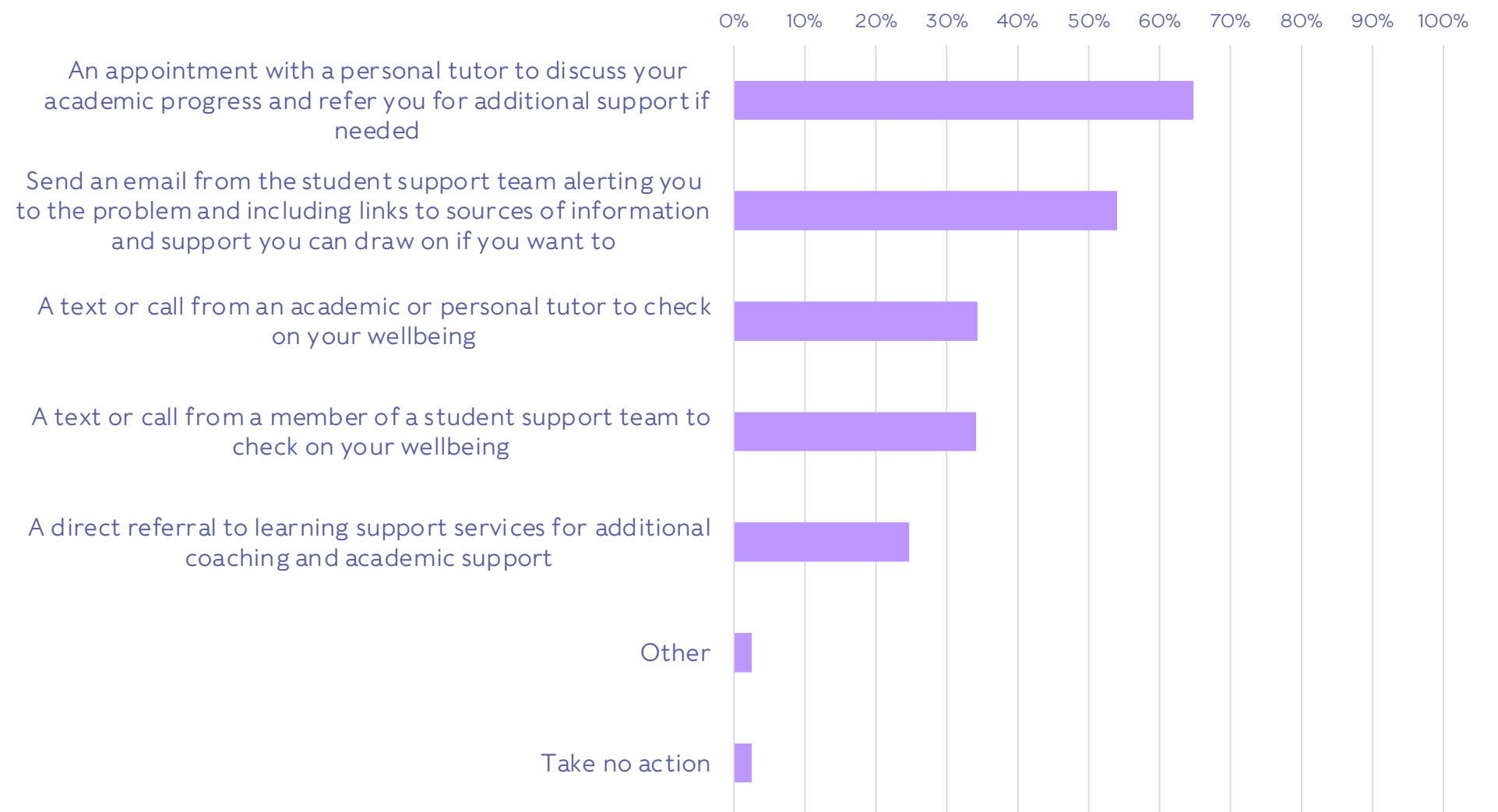
We asked students how they would prefer their institution to respond if an engagement analytic data system flagged that they were exhibiting low engagement.

65 per cent expressed a preference for an appointment with a personal tutor to discuss their academic progress.

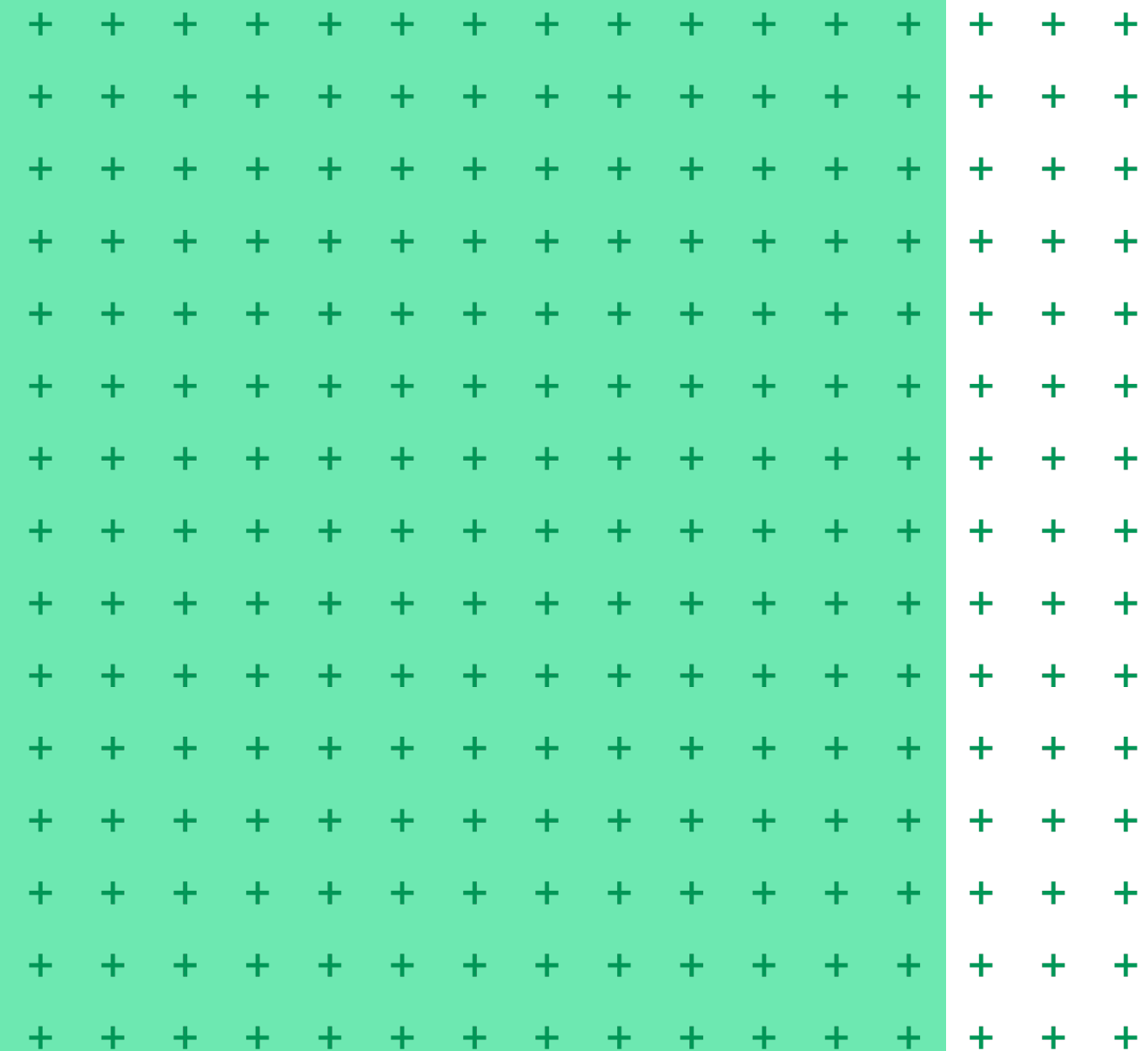
Just over half would also like the less active intervention of an email from a student support team offering further information and links to additional support.

On this question – unlike elsewhere in the survey - there was a noticeable difference for students who had identified they are eligible for a means-tested bursary (26 per cent of the sample). 29 per cent of these students selected a preference for a direct referral to learning support services compared to 18 per cent of those not eligible for means-tested financial support.

Imagine a scenario where your university collects data on your learning behaviours, and the system has flagged that you are exhibiting low engagement either compared to other students on your course or compared to your own previous engagement. How would you prefer your university to deal with that situation? *All respondents*



Feelings associated with engagement, disengagement, and motivations



How do/would students use an engagement dashboard?

Universities that use engagement analytic data systems typically share engagement dashboards with students but there is a lot of variation in students' feelings about the idea of a personal engagement dashboard.

37 per cent report they do or would find it motivating – and this was reflected in some of the qualitative comments.

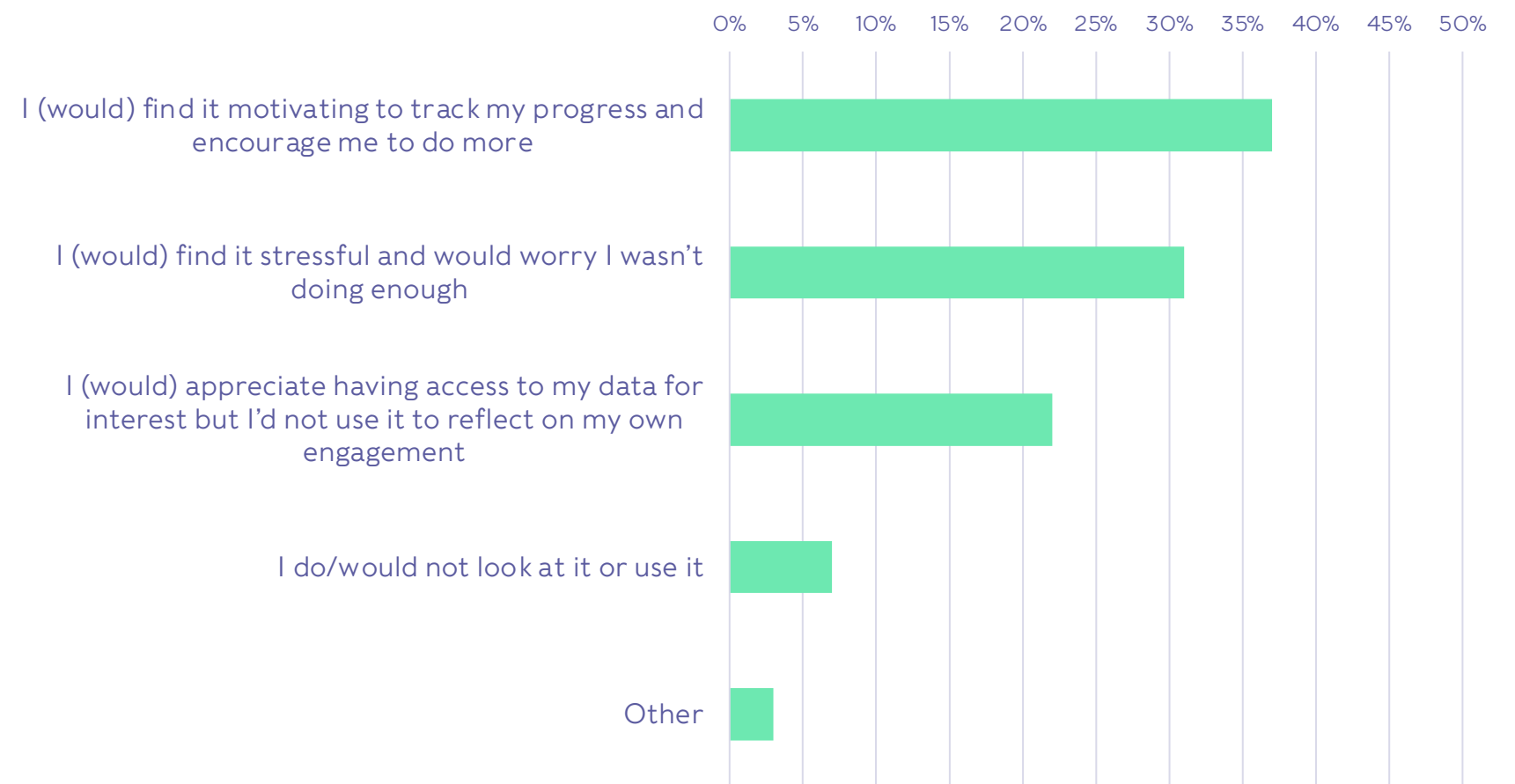
31 per cent said they do or would find it stressful and a source of worry. Qualitative comments suggested this linked to wider wellbeing issues, anxiety about falling behind, and concerns about a lack of nuance to account for differences in students' lives that could shape their patterns of engagement.

22 per cent were neutral in that they would find the data interesting but would not use it to reflect on their engagement, and 7 per cent said they would not use it at all.

We did not specify exactly how a dashboard would work, so we'd caution against assuming these findings would be consistent across all dashboard models.

But the findings speak to a need for careful discussion about what purposes a student engagement dashboard should serve and how students can be supported to use it productively.

If you have access to a student engagement data dashboard or if hypothetically you had access to a dashboard that could show you your engagement score based on your learning behaviours over the course of the term, how do you/would you feel about it? *All respondents*



Sentiments associated with disengagement

Complete the sentence:
“When I’m not engaged in
my studies I feel...”

All respondents



What motivates students to engage with learning?

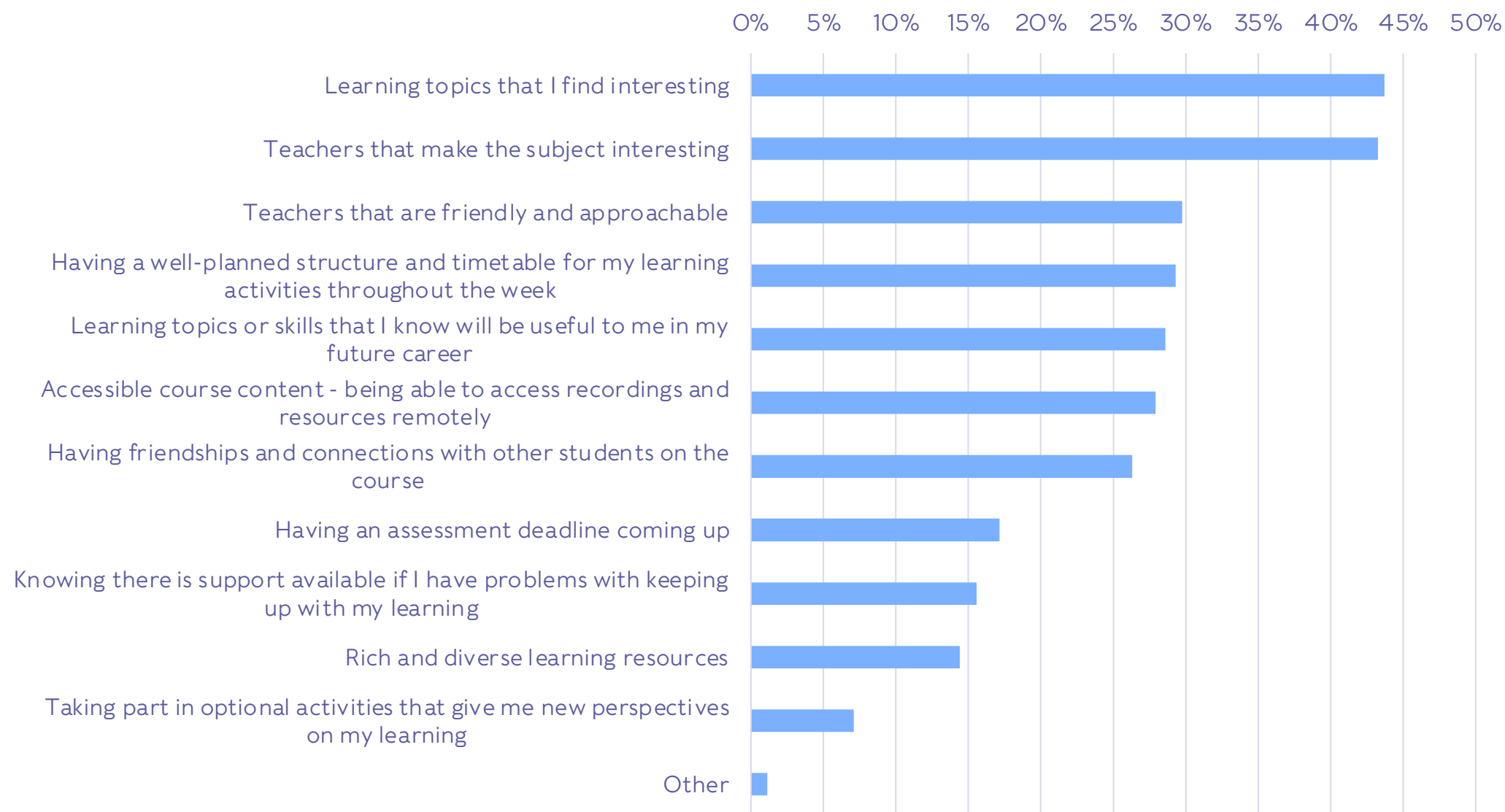
We asked what motivates students to engage more with learning and the two most popular answers selected by around two-fifths of respondents correlated to interests.

Some were more driven by personal interests and others by teachers who they feel make the subject interesting.

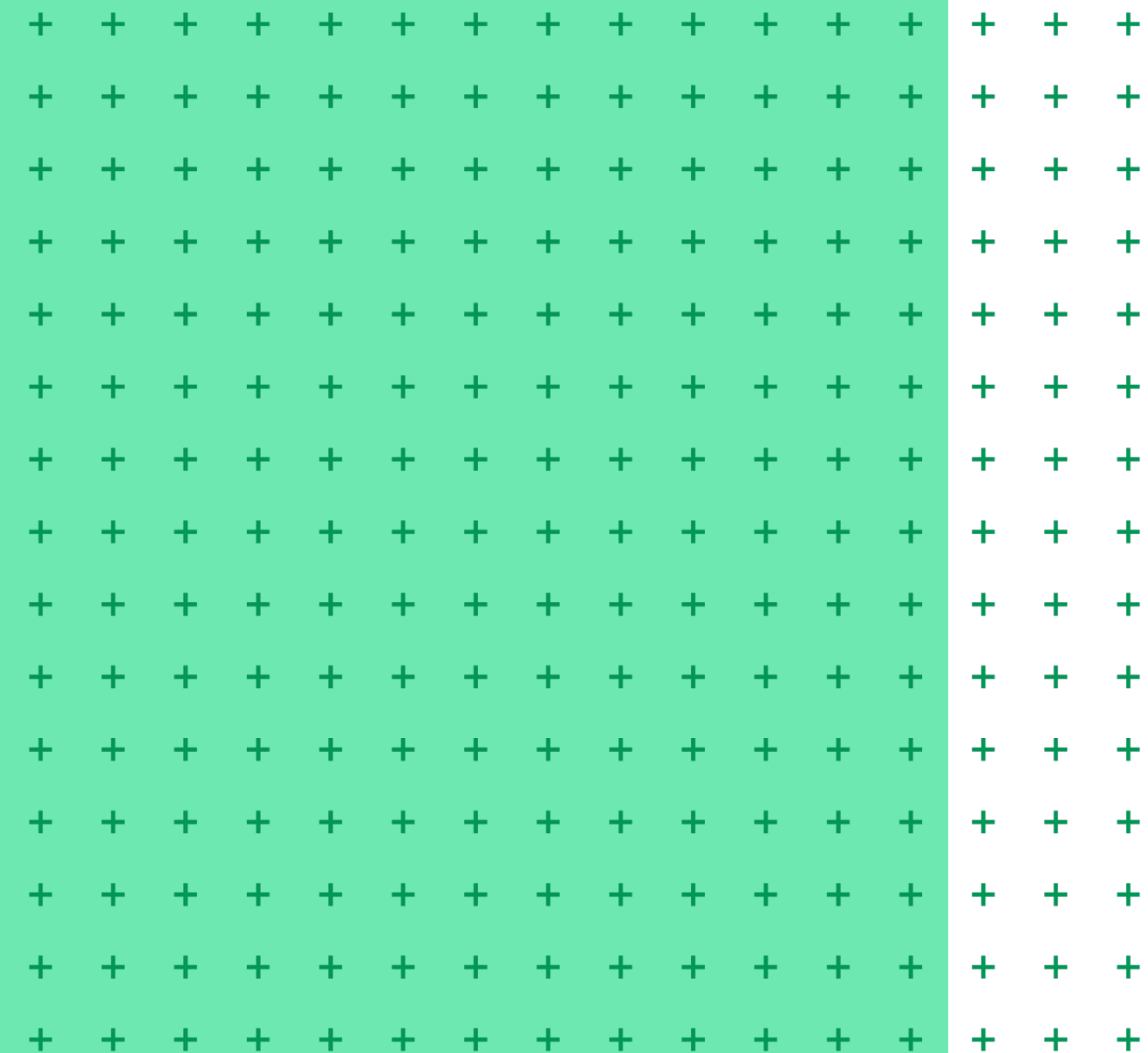
Different student groups had different priorities on this question – and the most popular answers are subjective – suggesting that there is no single “silver bullet” to motivate students or tackle low engagement.

Universities might want to consider how academic support systems encourage students to understand their own motivations and connect these to positive engagement behaviours.

What most tends to motivate you to engage more with your learning? *All respondents*



Support for learning engagement analytics

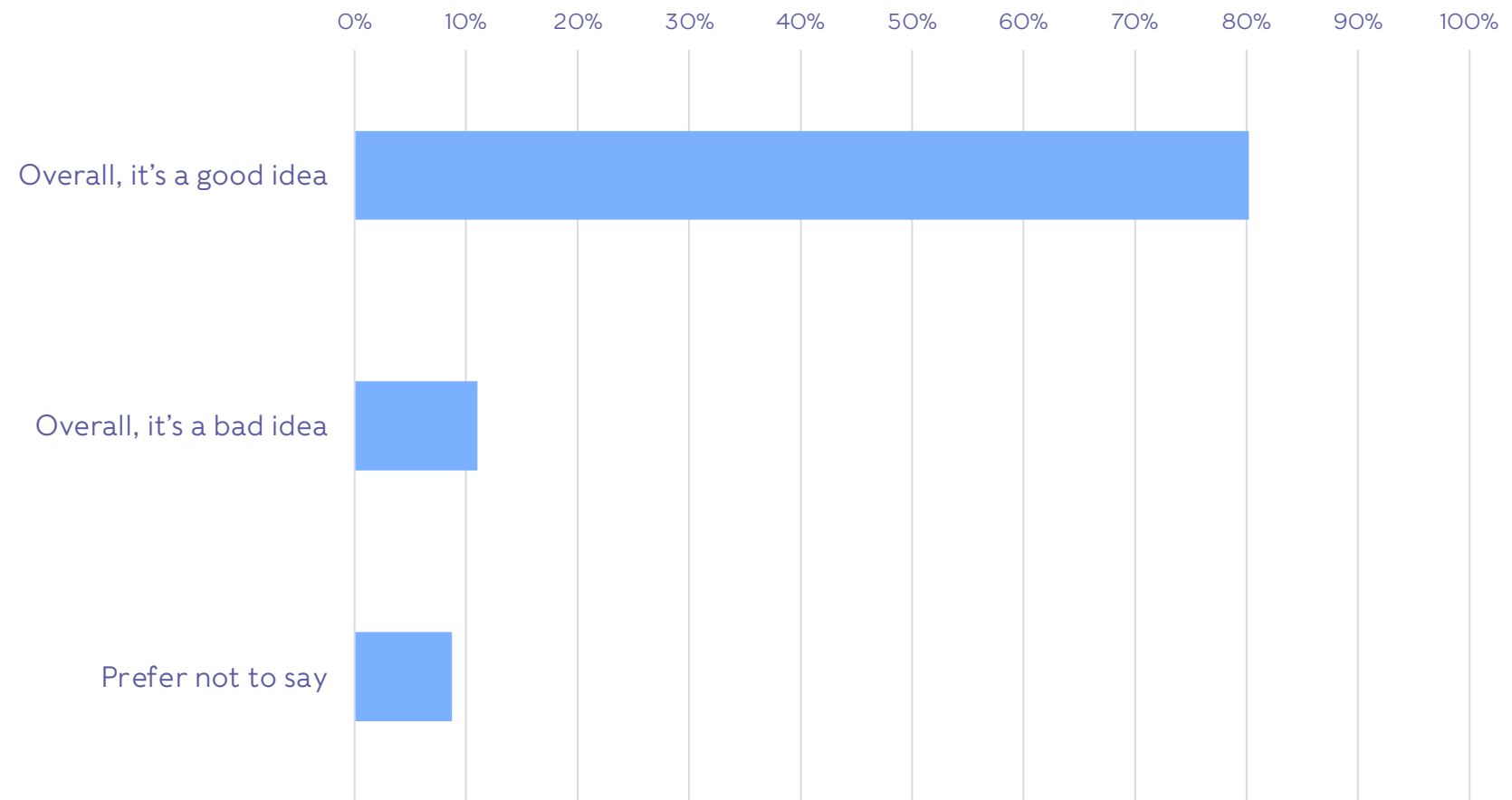


Do students support the idea of using engagement analytic data?

We asked respondents at the very end of the survey, reflecting on all the questions they had answered, to tell us whether on balance they believe it is a good or bad idea for universities to analyse student learning engagement.

The vast majority – 80 per cent – said that overall it is a good idea. 11 per cent said it was a bad idea, and 9 per cent preferred not to say.

Having gone through the survey, and thinking about all the various considerations raised, do you on balance think it's a good or bad idea for universities to analyse student learning engagement? *All respondents*



Why do students support or not the use of engagement analytic data?

We asked students to explain why, having considered the questions in the survey, they were supportive or otherwise of the use of engagement analytic data.

Those that were supportive (80 per cent of respondents) cited:

- Improving support for students – especially those who can't or won't ask for help
- Improving the learning environment in general
- Gaining insight from data – a process seen as valuable in itself
- Helping student motivation and understanding of what is expected and track their progress

Some caveated their support with the proviso that data should be used sensitively and not punitively, that it should address any privacy concerns, and any possible implications for students' assessment or futures clearly stated.

Those that were opposed (11 per cent) cited concerns about:

- Privacy – some were comfortable with analysis of aggregate engagement data but less of individual data
- Stress – arguing that different engagement patterns relate to students' lives and preferences, not the quality of their work
- Politics – seeing data collection as an intrusion of capital/corporate interests into the academy

"It would enable the universities to design more adequate support for students who aren't engaging or who need more support but don't know how to reach out for it. It'd also help the universities to redesign their support systems to better suit the needs of students."

"The data is there - as an economist it would be a crime not to analyse it!"

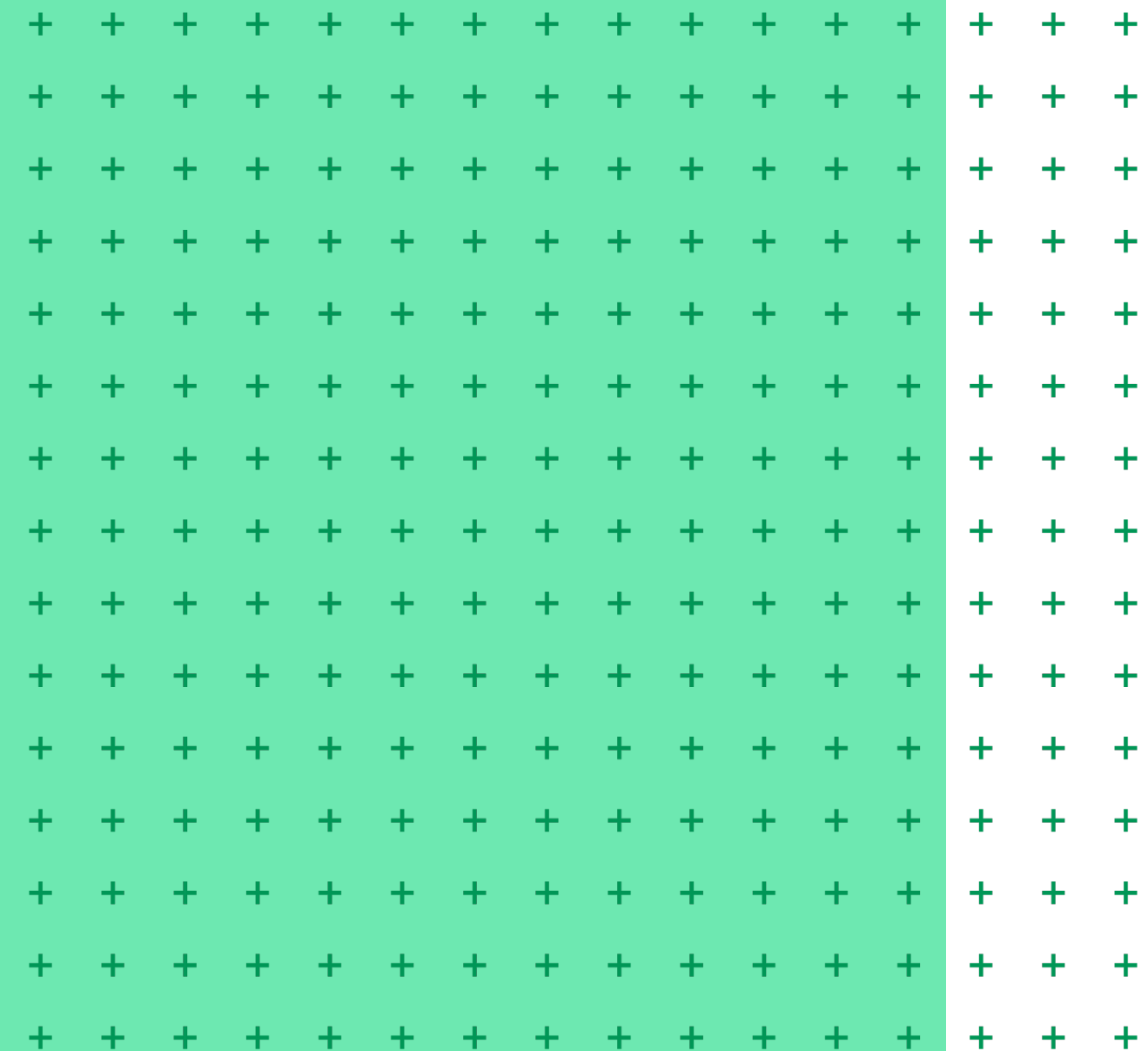
"I can see the potential stress it would cause a student to be monitored more heavily but overall I've really struggled with my wellbeing on the course and I think this is a good way to keep an eye on vulnerable students who may find it difficult to ask for help."

"I believe it might motivate people to do their best and get more out of their studies at university and appreciate the learning opportunities available to them."

"University education should be immersive and personalised to the student. As long as the data doesn't infringe of a students privacy it is overall a good idea because we are at university to learn and find ourselves at the end of the day."

"I think it is too intrusive and at the end of the day, it is down to the student to make the most of their time at university. Most students would know if they are not engaging as much as they should and they should have the freedom to choose whether they access support to help them with that."

Variation: disability; domicile; year of study

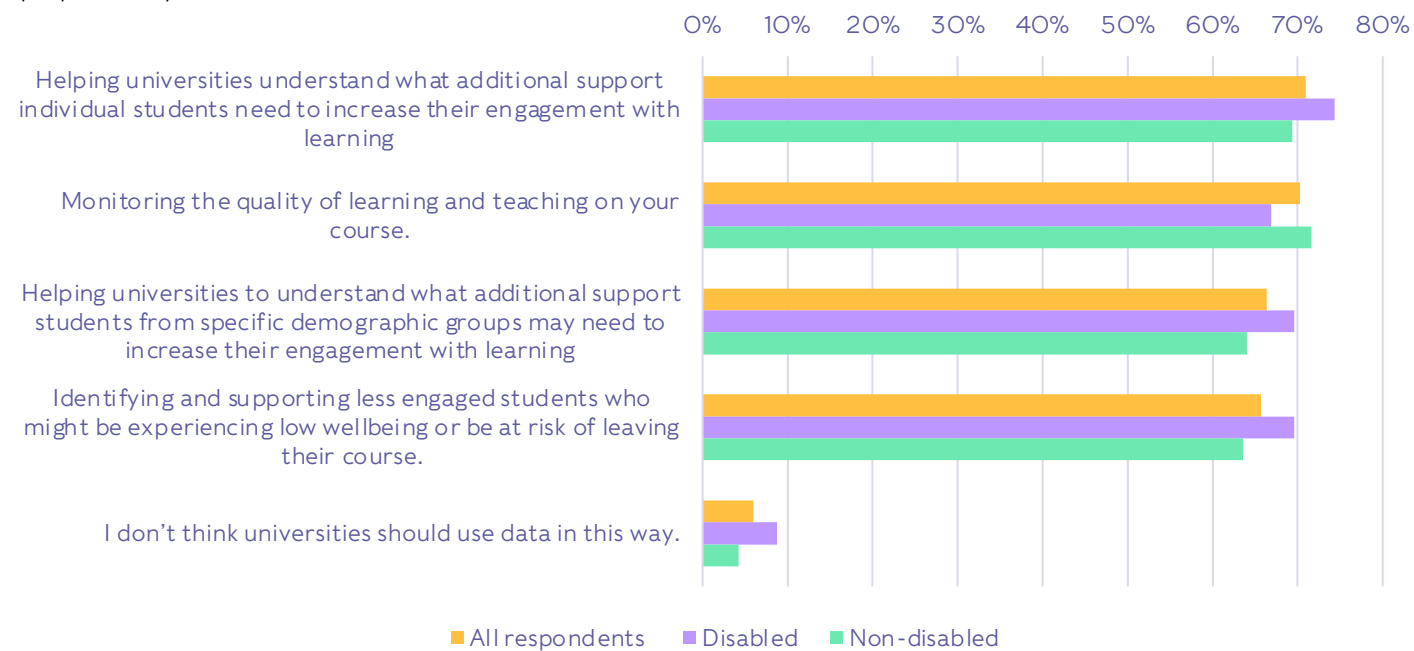


Disabled students I

34 per cent of our sample identified as having a disability, and 59 per cent said they had no disability.

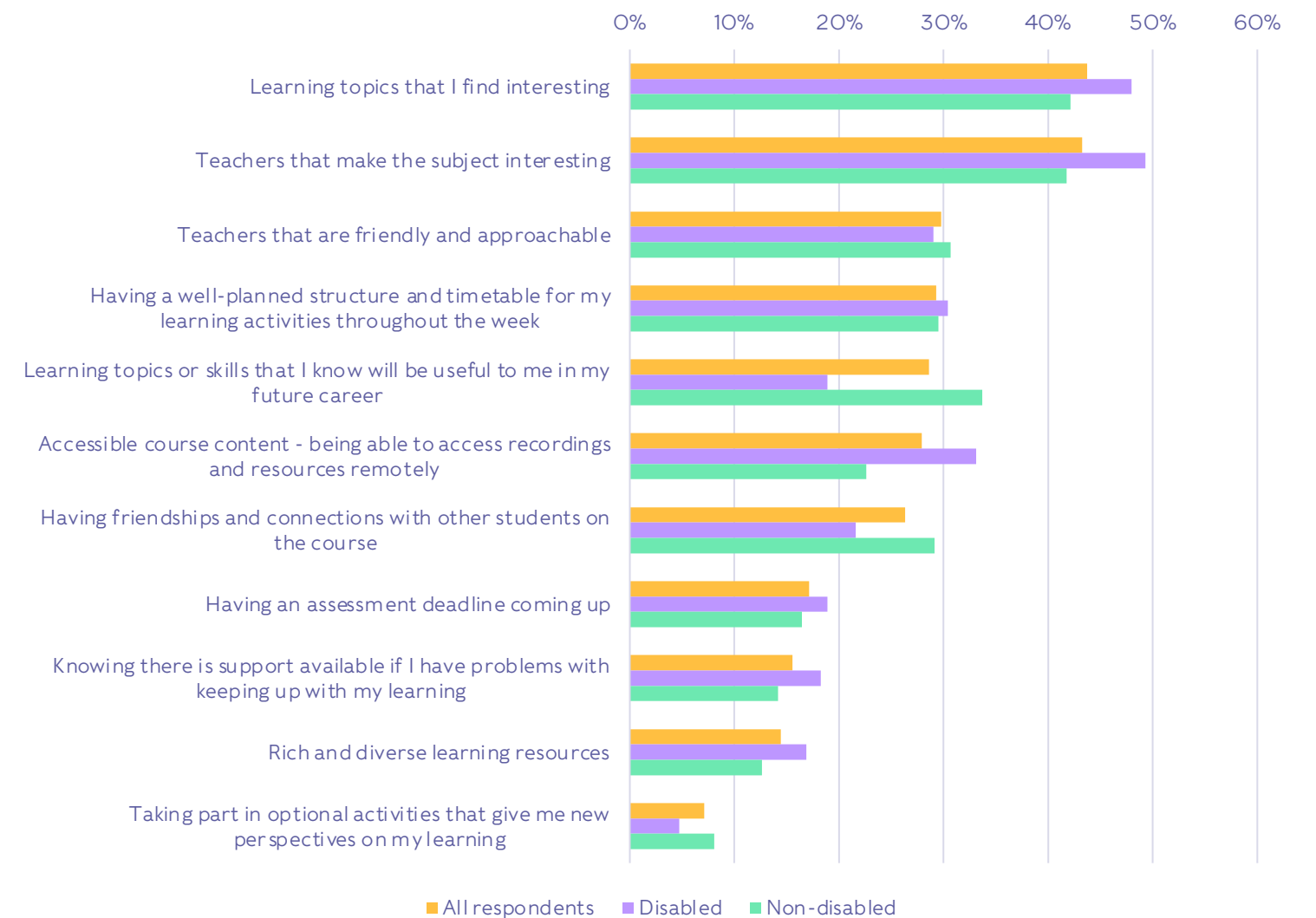
Disabled students were more likely than non-disabled students to support the use of engagement analytics to help universities support individual students, and to identify and support less engaged students – but also more likely to say universities should not use data in this way.

If your university collects or were to collect data about your engagement with learning and campus, for what purposes do you think it should be used?



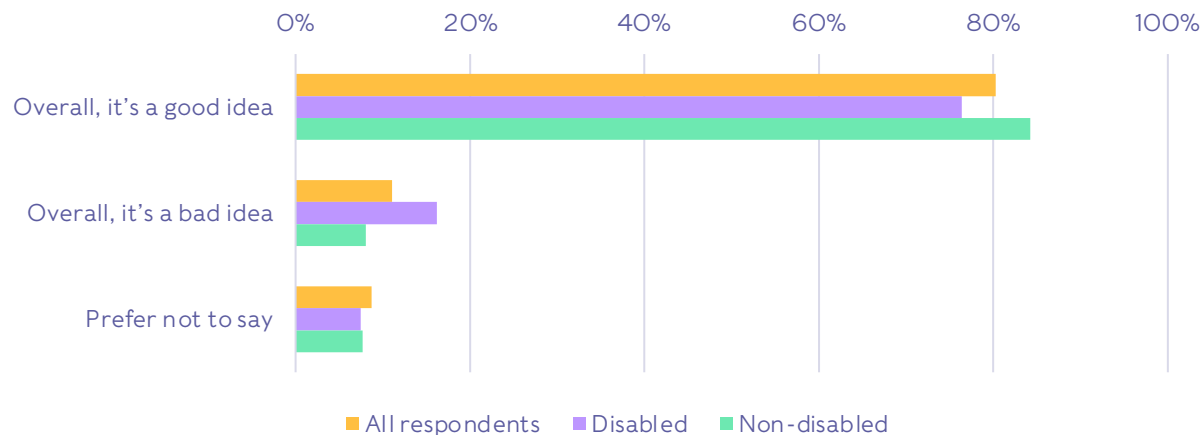
Disabled students valued interest as a motivator for learning more highly than non-disabled students, and were also understandably more likely to value accessible course content.

What most tends to motivate you to engage more with your learning?



Disabled students II

Having gone through the survey, and thinking about all the various considerations raised, do you on balance think it's a good or bad idea for universities to analyse student learning engagement?



Disabled students are less likely than non-disabled students to support the use of engagement analytics – although the majority of disabled respondents were supportive.

Disabled students are also more likely to say they would find a student engagement dashboard stressful – 41 per cent compared to 25 per cent of non-disabled students.

The qualitative responses suggest that where students are concerned it is driven by a preference for privacy, and a sense that disabled students' patterns of engagement might of necessity be different from their non-disabled peers and disabled students would not like to risk being penalized for this.

“Monitoring student engagement could potentially allow for universities to identify students struggling with mental illnesses or cognitive disorders, who either don't have the capacity to reach out or are unaware they are eligible for additional support. In doing so, many students from disadvantaged backgrounds or who have struggled with mental health can be supported through their degrees, as opposed to falling through the gaps and becoming discouraged/withdrawing from their studies.”

“I think it can be very helpful to see if students are struggling. As someone with social anxiety, I've had times where I couldn't bring up the courage to attend lectures and ended up falling behind because of it.”

“I worry that the way universities may do this will be unhelpful, or that the focus becomes misplaced. For example, I had an experience where I was having physical health issues and on some days found I could only engage with my course from home. I was called in for a meeting about my absences, and was told that I must improve it or may have to discontinue the course, even though I explained myself and was getting consistently good marks on coursework and assignments.”

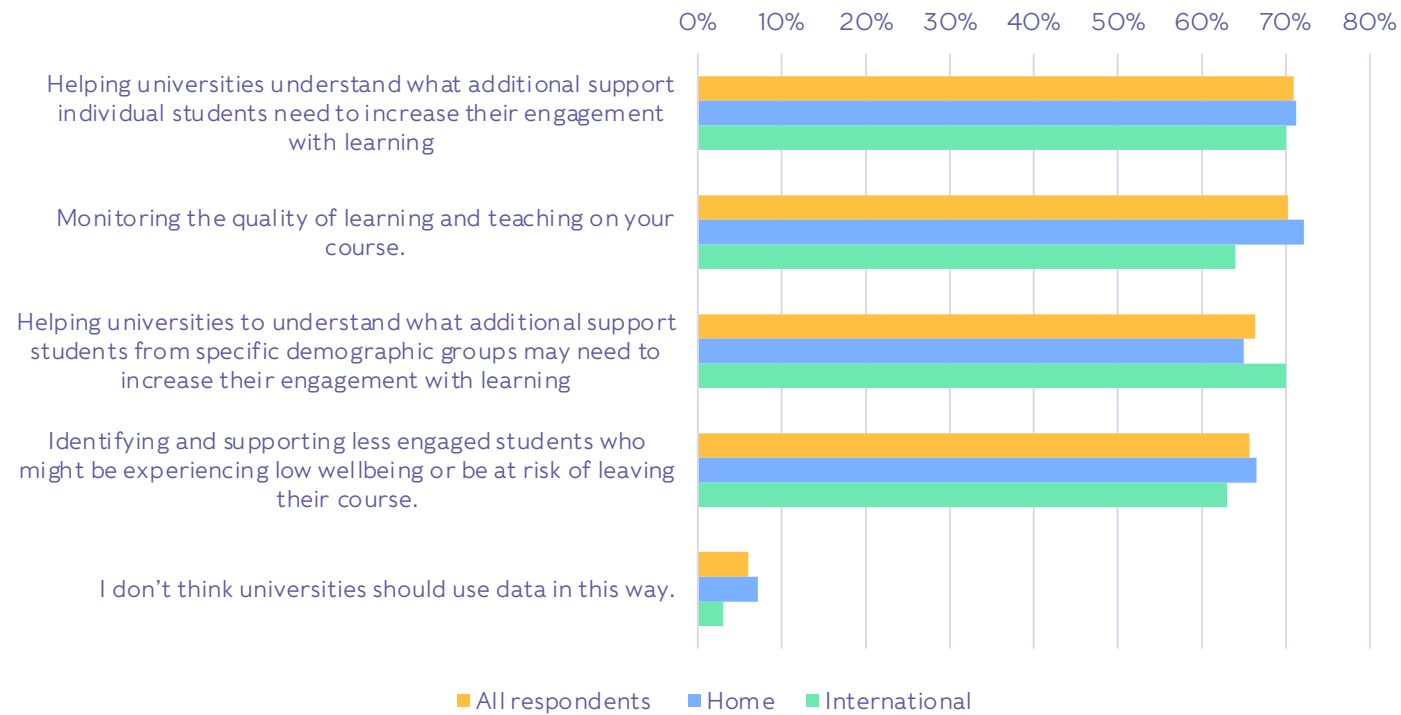
“I think perhaps the data wouldn't be able to give a very nuanced insight into how engaged a student necessarily is...From a disability perspective as well I think I'd be more worried about not being able to get to in-person lectures/libraries etc. if the university was tracking that, even if I was still completing the assessed work to a high standard.”

International students I

22 per cent of the sample identified as an international student; the remaining 78 per cent are home students.

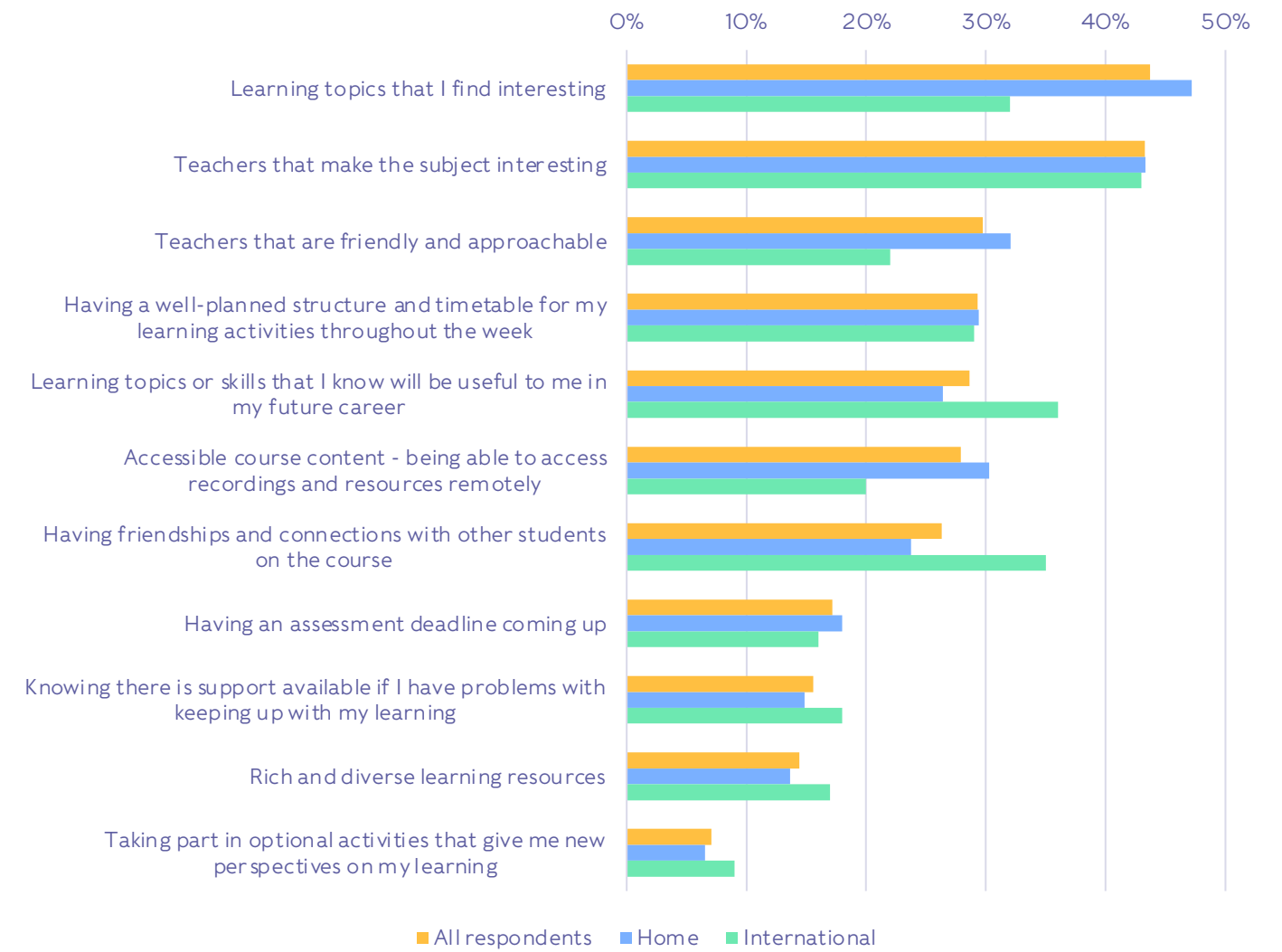
International students are less supportive than home students of the idea of using engagement analytics to monitor teaching quality, and more supportive of using analytics to understand what support students from specific demographic groups might need.

If your university collects or were to collect data about your engagement with learning and campus, for what purposes do you think it should be used?



International students report they are more likely to be motivated by course content that is relevant to their future careers, and by having friendships and connections with other students on the course.

What most tends to motivate you to engage more with your learning?



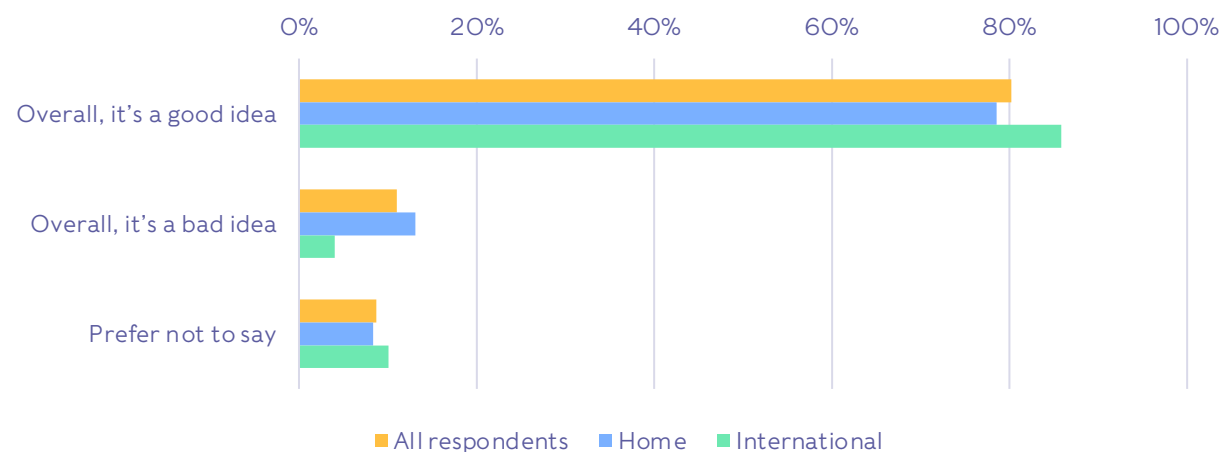
International students II

International student respondents were more supportive than home students of universities using learning engagement analytic data.

They were also more likely to say that they would find a student engagement dashboard motivating to track their progress. 44 per cent said they would find a dashboard motivating compared to 35 per cent of home students.

Qualitative responses did not differ significantly from home students in the rationale for supporting engagement analytics or otherwise but there is broad support for provision of academic support at individual and collective level in the qualitative comments.

Having gone through the survey, and thinking about all the various considerations raised, do you on balance think it's a good or bad idea for universities to analyse student learning engagement?



“I think if a lot of students are unengaged in a specific course than it probably says something about the course or professor and something on that end needs to change. But if a particular student seems unengaged and the university notices then maybe resources can be provided to help that student that they wouldn't have found otherwise.”

“Knowing how well students are engaging in their studies could help universities find solutions in situations where students seem to engage less in particular modules. It could be useful in identifying students going through real problems.”

“I think in theory it would be great if schools then used it to reflect on what's keeping students disengaged. But I've seen many cases where teachers interpret this data as a problem of simply a bad student.”

“Most times, students behaviour or engagement are based on how well they thought was the most appropriate, but when such student is guided on how best things are to be followed, you see the student improving beyond expectations.”

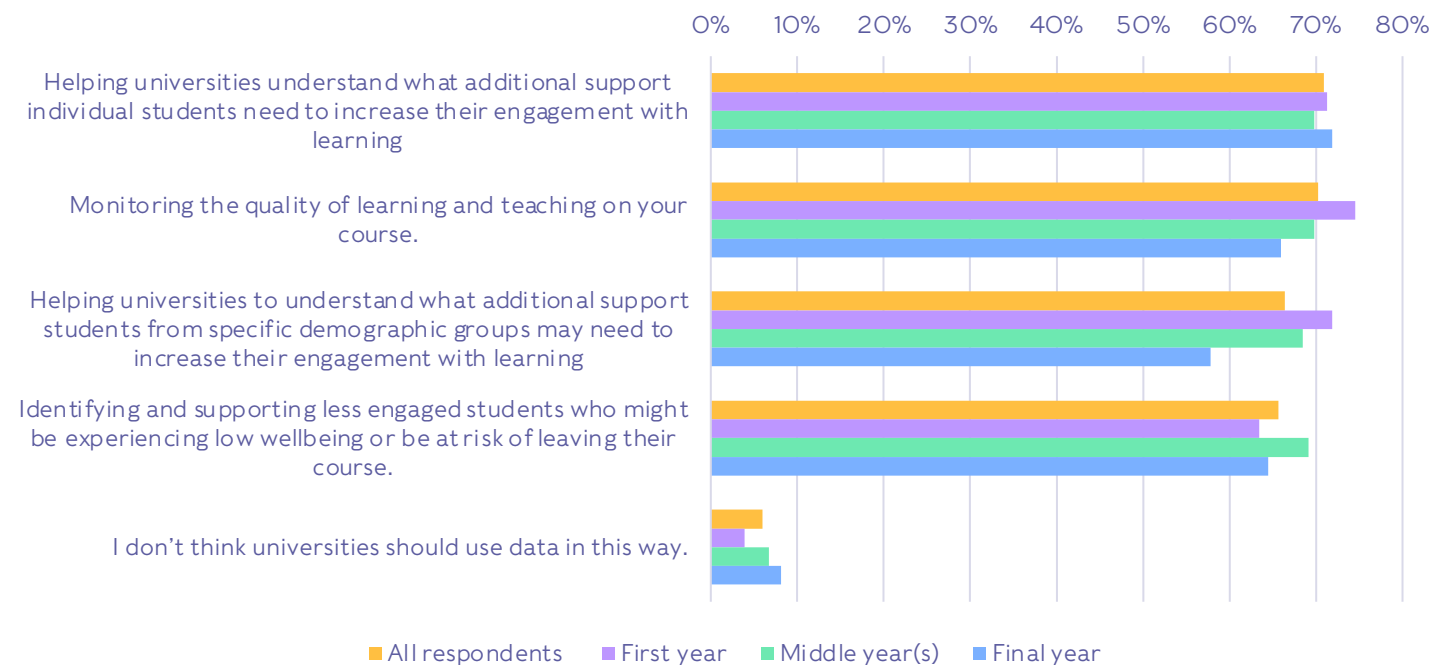
“There are both positives and negatives however, overall it would be a bad idea because although it enables for the university to intervene when students are exhibiting low engagement it doesn't mean that the student will produce bad work. Some students learn differently and low engagement doesn't always mean that they aren't going to have success in their studies and if they continuously get contacted to have to attend lectures, as an example, to increase their engagement then it is highly probable that the student will attend but not focus or learn anything so it would be a waste of time.”

Year of study I

36 per cent of the sample were first-year students; 31 per cent were in their final year; and the remaining 33 per cent were in a middle year.

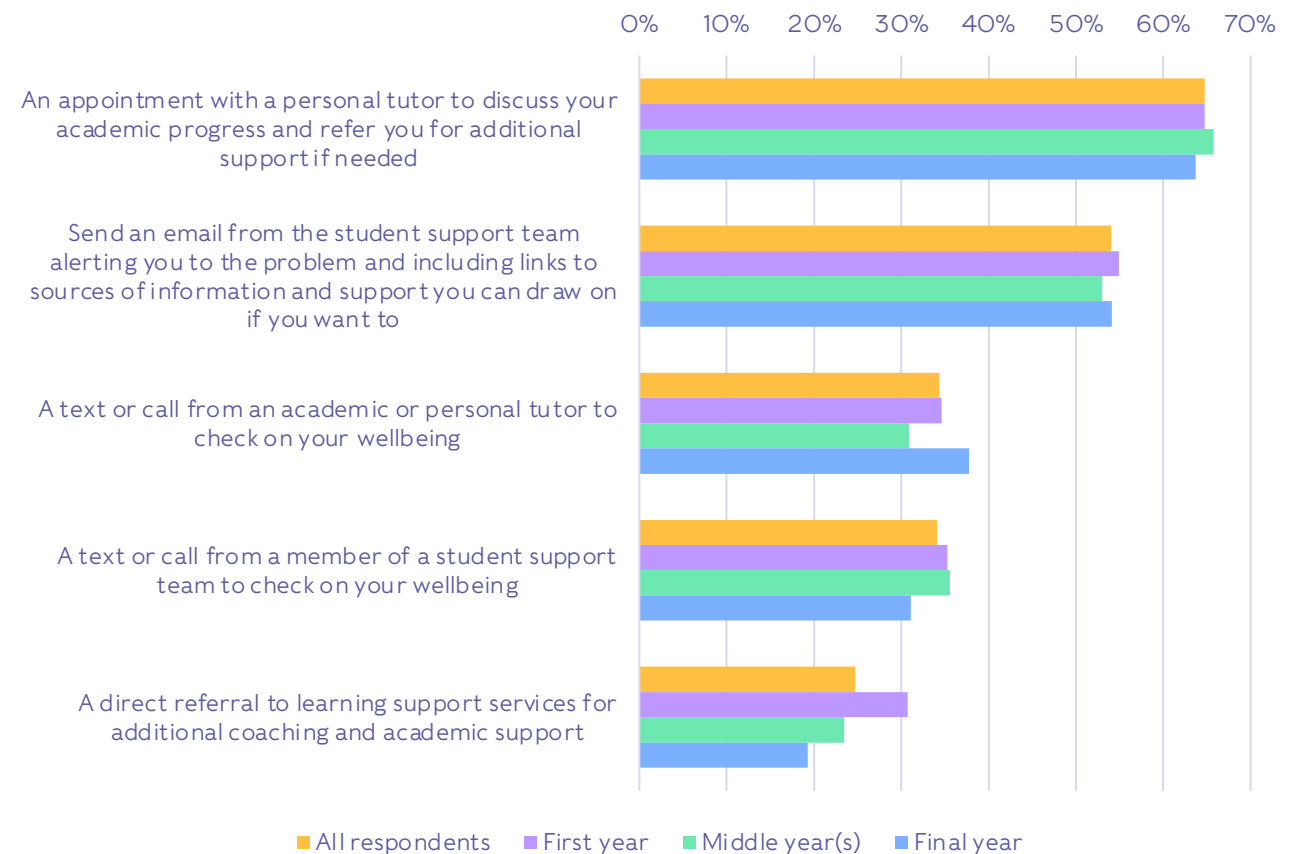
Students in their first year were more supportive of using engagement analytics to monitor learning and teaching quality and understand specific support needs for particular demographics than students in their middle and final years.

If your university collects or were to collect data about your engagement with learning and campus, for what purposes do you think it should be used?



Students in their first year were more likely than students in their middle or final years to believe a direct referral to learning support services would be an appropriate response to being flagged as struggling with engagement.

Imagine a scenario where your university collects data on your learning behaviours, and the system has flagged that you are exhibiting low engagement either compared to other students on your course or compared to your own previous engagement. How would you prefer your university to deal with that situation?

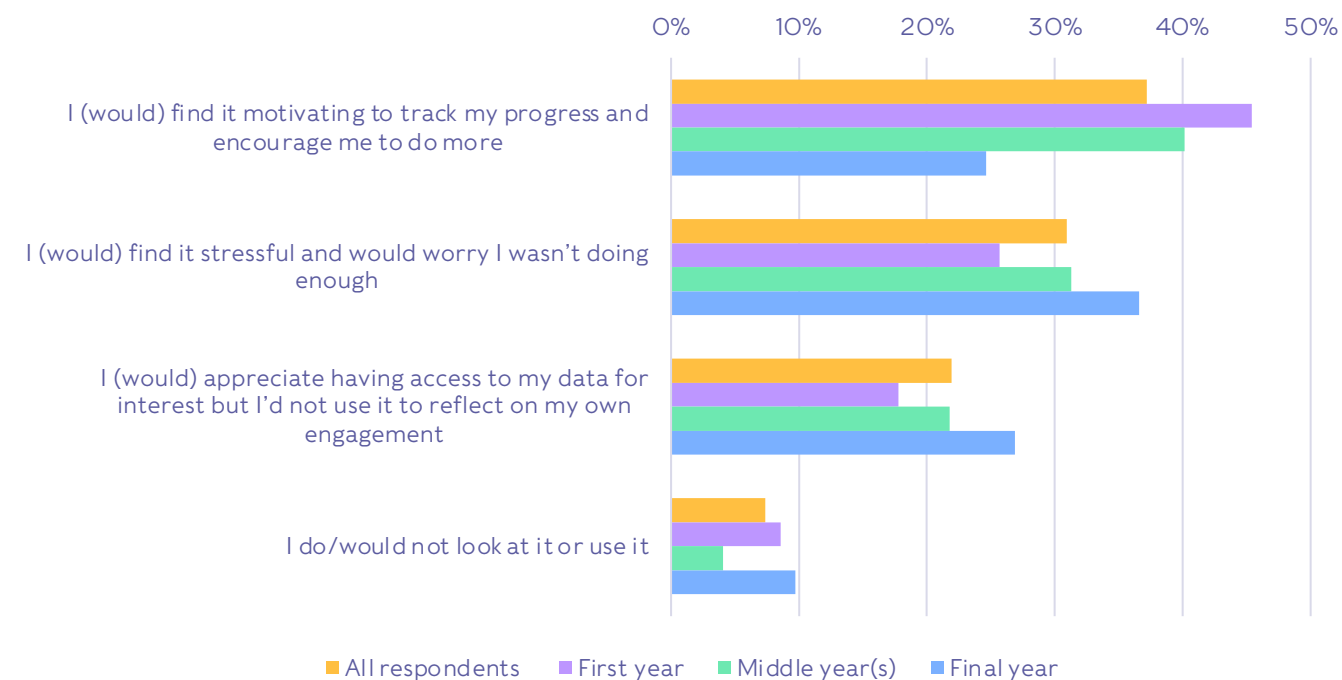


Year of study II

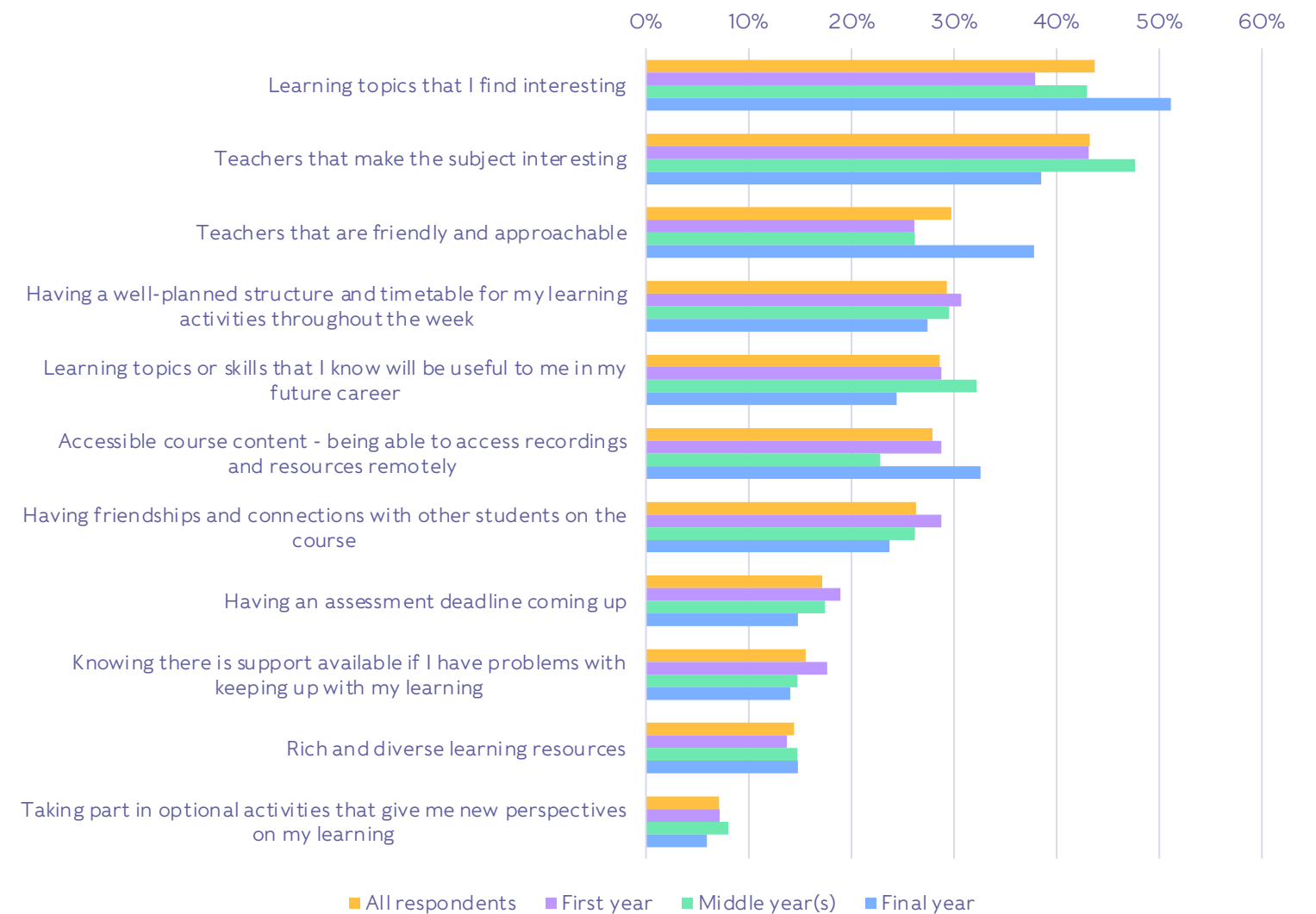
Students in their first year were more likely to say they would find a student dashboard motivating to help them track progress, whereas students in their final year were more likely to say they would find an engagement dashboard stressful.

There was no difference by year of study in whether students supported the use of learning engagement analytics.

If you have access to a student engagement data dashboard or if hypothetically you had access to a dashboard that could show you your engagement score based on your learning behaviours over the course of the term, how do you/would you feel about it?



What most tends to motivate you to engage more with your learning?



Students in their final year were more likely to be motivated by learning topics they find interesting and teachers that are friendly and approachable than those earlier in their course, whereas those earlier in their course are more motivated by teachers that make the subject interesting.

Reflections and recommendations

These findings suggest that the majority of students are highly likely to be supportive of universities using learning engagement analytics, assuming the intention is to enhance student support. Where there is a vocal contingent voicing sceptical views, it could be worth testing the perceptions of the wider student body rather than assuming these voices are representative.

At the same time, those who are supportive are likely to have questions, and want to be assured that their data is secure, that they are not going to be punished or penalised and understand how collecting and analysing the data will contribute to their experience and success. The engagement with the qualitative question suggests that students welcome the conversation and appreciate the opportunity to think about their engagement, why it matters, and how it's supported.

It's also clear that students are perfectly capable of judging for themselves what engagement behaviours are meaningful, and applying context and nuance that could inform understanding of engagement patterns. Including students in planning around what to measure could help universities find the right balance of meaningfulness, frequency, and comfort with data collection.

It could also be useful to think through what additional data about students might help to give some context to their engagement patterns and how students feel about this data being linked to their engagement. Disability, for example, is likely to be an important contextual factor in understanding engagement, but we have seen that some disabled students may be less comfortable with being identified as such.

The core conversation with students is likely to be focused on broad reassurance about privacy and purpose – but universities should expect to have more detailed conversations with students or student groups with particular concerns or priorities. Ideally, it would help if universities are able to explain how their learning engagement analytics strategies tie into wider student support strategies, both individual and demographic-specific.

Where there is the potential to make use of a student engagement dashboard, engaging with students in the design of the dashboard would help ensure the data can inform and empower students to understand their engagement and potentially adopt more productive learning behaviours.



Thank you

Contacts

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Debbie and Michelle would like to thank the students who contributed to the research for taking the time to share their views.

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